2018 ANNUAL MONITORING REPORT

Kurt Manufacturing Company

Fridley, Minnesota

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1.0 INTRODUCTION

This report contains the results of 2018 groundwater monitoring completed by Landmark Environmental, LLC (Landmark) at the Kurt Manufacturing (Kurt) facility located at 5280 Main Street, Fridley, Minnesota (Site). Groundwater sampling at the Site is conducted on a semi-annual basis; in the spring when, typically, a reduced number of wells are sampled and, in the fall, when all of the wells are sampled. All wells were monitored in the spring of 2017 as a part of the US Environmental Protection Agency (EPA) required Remedial Investigation (RI) conducted at the Site. The typical reduced number of wells were sampled at the Site in the spring of 2018.

The 2015 Existing Data Report (EDR)[1] provides the location of the documented release of volatile organic compounds (VOCs) at the Site (Source Area[2]). Section 2.4 and 2.5 of the EDR describes the measures Kurt has undertaken to reduce and, in some cases, eliminate their VOCs from their manufacturing processes, and manage their waste products.

Response actions (RAs) were completed by Kurt at the Site between 1986 and 2011. These RAs, discussed in greater detail in Section 2.3 of the EDR, included:

- Installing and operating a groundwater pump-and-treat system since 2000 that, as of 2018, has captured approximately 285 million gallons of groundwater and nearly 2,900 pounds of VOCs from the Quaternary Aquifer;

- Abandoning the Site's Shallow Production Well and taking the Deep Production Well off-line to limit vertical migration of groundwater contamination to the underlying Prairie du Chien (OPDC) Aquifer;

- Excavation of contaminated soils (195 tons) in the Source Area in October 2010 to a maximum depth that would cause no structural damage to the Site building;

- In-situ chemical remediation of soils in October 2010 at the base of the excavation in the Source Area with Fenton's Reagent; and,

- The installation of a SVE system in 2011 to remediate contamination not reached during the overlying in-situ chemical remediation of soils and soil excavation, and to remediate soil contaminants potentially remaining beneath the Site building. The SVE system, which was in operation from October 2011 through September 2014, removed approximately 1,500 pounds of PCE.

The first groundwater monitoring activities completed after the 2010 RA were initiated in the spring of 2011. This 2018 Annual Monitoring Report (AMR) compares the 2018 groundwater data with time/concentration trends since 2011 and references pre-2011 data where appropriate. AMR's from previous years that were submitted to the Minnesota Pollution Control Agency (MPCA) as well as the EDR provide the historic record of pre-2011 data collected from Site monitoring wells. This data is referenced where applicable.

[1] *Existing Data Report,* Kurt Manufacturing Company, Fridley, Minnesota. EPA Site ID: 059680165, MPCA Site ID: SR11. Prepared by Landmark and submitted to the EPA and MPCA. Dated April 20, 2015.

[2] The "Source Area" is the general area of the Site that includes the former chip bin storage area and loading dock. It extends under the Building at the Site, north of the loading dock.

1.1 2018 SITE REMEDIATION ACTIVITIES

There were no remediation activities completed at the Site in 2018.

1.2 2018 GROUNDWATER MONITORING ACTIVITIES

All 2018 groundwater sampling activities were completed under the direction of Landmark staff. Groundwater samples were collected between June 4 and 5, 2018 and between October 15 and 16, 2018 by Pace Analytical Services, Inc. (Pace). All Site monitoring wells, including RW-C and DPW were sampled.

Pace (State of Minnesota Laboratory No. 027-053-137) analyzed October 2018 and June 2018 samples for VOCs by EPA Method 8260B as has been conducted in previous years. The laboratory reports and field notes for the sampling events are contained in Appendices A and B. 1,4-Dioxane analysis was added to the 2017 groundwater monitoring program per the October 4, 2016, Remedial Investigation Work Plan (RIWP) approved by the Environmental Protection Agency (EPA). In 2018, groundwater analysis of 1,4-dioxane was inadvertently excluded from the groundwater monitoring program; therefore, is not discussed in this Annual Monitoring Report (AMR). Analysis of 1,4-dioxane will be included in the 2019 and subsequent groundwater monitoring events.

The 2018 surface water levels at MW-3 were abnormally high compared to historical levels. In April 2019, the integrity of MW-3 was inspected with a camera which indicated the screen was full of sediment. Numerous attempts were made to redevelop the well, but the screen continued to fill back up with sediment. MW-3 was replaced on April 29, 2019. Details for the replacement monitoring well MW-3 will be discussed in the 2019 AMR. The 2018 surface water levels at MW-3 have been called out in this AMR as anomalous.

Quality assurance/quality control (QA/QC) data presented in the laboratory reports indicated that all samples yielded reliable data for use in interpreting the groundwater conditions at the Site. All sample results were in conformance to current accredited NELAC standards. Qualifications[3] were noted based on QA/QC information presented within the laboratory reports. Otherwise, there were no exceptions relative to the Site QA/QC Plan.

The Site location is shown on Figure 1, and a Site map is presented as Figure 2. Information concerning the Site background and history can be found in the EDR.

2.0 GROUNDWATER CONDITIONS

2.1 GROUNDWATER FLOW REGIME

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[3] J-flagged means: the value is estimated, the value was between the MDL and the laboratory reporting limit.
In MW-15 and Duplicate-2, Hexavalent Chromium was J_{10}-flagged in October 2017 data.
J_{10}-flagged means: estimated value, the matrix spike % recovery was low, result may be biased low.
In MW-10, MW-12, MW-14, acetone was J_{11}-flagged in the June 2017 data.
J_{11}-flagged means: estimated value, the method blank was > reporting limit; the sample was <10x the blank result, the data may be biased high.
In MW-1, MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, MW-13, PC-1, PC-2, and Duplicate-2, acetone was U-flagged in the June 2017 data.
U-flag means: analyte was analyzed for, but not detected above the level of the sample quantitation limit/reporting limit.

The EDR provides an analysis of the groundwater flow regime for the Site and for the regional setting. The document describes two main aquifers of concern at the Site and in the region; an unconsolidated Quaternary Aquifer which overlies a Bedrock Aquifer consisting of the OPDC and underlying Jordan Sandstone. At the Site the monitoring wells within the Quaternary Aquifer are used to measure water levels and chemistry in the shallow (largely water table) and deeper portions of this aquifer. Monitoring of the Bedrock Aquifer at the Site is completed with two wells finished in the upper portion of the OPDC and at the former Site DPW which is cased through the majority of the OPDC and is open hole through the bottom ~25' of the OPDC and into the underlying Jordan. Generally, the DPW is sampled just below the end of the casing at the highest accessible elevation within the OPDC (225'). As Site wells evaluate the OPDC component of the Bedrock Aquifer, hereinafter, monitoring of the underlying Bedrock Aquifer is referred to as the OPDC Aquifer, unless otherwise noted.

The EDR (Section 3.3) presents an evaluation of area-wide groundwater flow within both aquifer systems. In general, the EDR concludes, based on static groundwater levels from on-Site and off-Site wells, that:

- In the Shallow Quaternary Aquifer, groundwater appears to flow radially from a high point between the south side of the Site and the Reviva property to the south. Groundwater flow from the immediately southern adjacent Timmerman property is north towards RW-C (see Figure 1 for referenced properties). West of the Site, groundwater flow is north to northwest. RW-C influence extends effectively to all Site boundaries and extends off Site to the north;

- In the Deep Quaternary Aquifer, the contoured potentiometric surface indicates a groundwater flow pattern similar to that in the shallow portion of this aquifer with flow on an area-wide basis generally from east to west. There is a groundwater high on the Reviva property with flow moving from this property towards the Site. On the Site, flow moves towards RW-C, with the area of influence from RW-C extending off the Site to the south and north. West of the Site, groundwater appears to flow westerly to northwesterly. Flow on the eastern portion of the Site is inferred to be towards RW-C; and

- In the OPDC Aquifer the contoured potentiometric surface indicates there is an apparent groundwater high on the northwestern portion of the NIROP property, located west of Kurt, and centered on NIROP monitoring well 5-PC. Groundwater appears to flow from southeast to northwest at the Site and to the immediate west of the Site it flows to the north.

2.2 2018 GROUNDWATER FLOW

Water levels were measured by Pace prior to purging and sampling the wells. The field data for these measurements are provided in the field log data sheets (Appendices A and B). Groundwater elevations for each sampling event since 2011 are tabulated for each well in Appendix C. The 2018 groundwater static water levels are presented in Table 2.2-1. Historic groundwater elevations have been provided in prior AMRs, and the EDR.

Table 2.2-1
2018 Static Water Levels
All Site Wells

	Jun-18	Oct-18		Jun-18	Oct-18
MW-1	823.23	823.58	**MW-12**	821.29	821.80
MW-2	823.27	824.00	**MW-13**	823.02	823.46
MW-3	849.06	844.43	**MW-14**	823.14	823.47
MW-4	828.98	829.21	**MW-15**	827.44	827.82
MW-5	828.24	828.98	**Well B**	825.18	825.55
MW-6	820.72	821.30	**RW-C**	813.88	814.85
MW-7	828.49	828.92	**Well D**	sealed	sealed
MW-8	823.10	823.91	**PC-1**	821.31	821.73
MW-9	828.02	828.57	**PC-2**	823.33	823.76
MW-10	820.09	820.46	**DPW**	822.89	823.35
MW-11	sealed	sealed			

Note: MW-3 Static Water Levels were unusually high in 2018, highlighted in red above.

Figure 2.2-1 presents the post-2011 groundwater elevation data for the nine Site monitoring wells finished in the Shallow Quaternary Aquifer. The data indicates the water levels fluctuate in a consistent manner with temporal variation. An exception is the outlier data points for MW-3 in May 2014, June 2018, and October 2018. As noted in the 2014 AMR, this flush-mounted well had been impacted by inflow of surface water prior to the May 2014 sampling event. Similar surface water impact is suspected to have occurred prior to the 2018 sampling events.

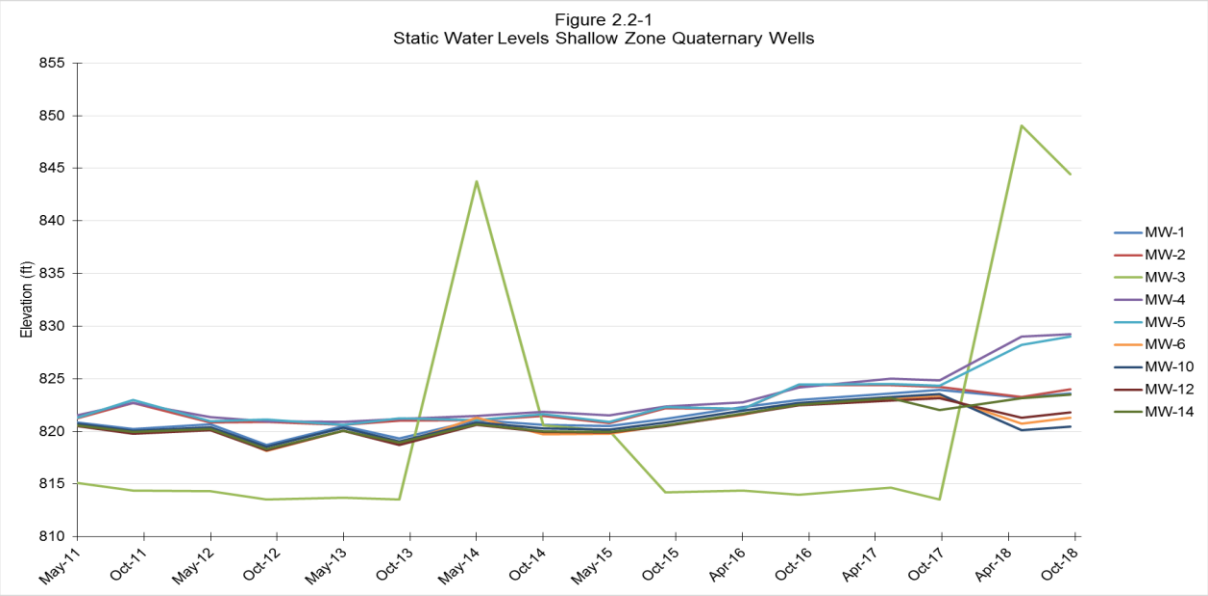


Table 2.2-2 provides the statistical variation in the groundwater elevation between 2011 and 2018. The data indicates that the water levels generally deviate between approximately 1.4 ft. to 2.7 ft. (on average around 1.8 ft, excluding the May 2014, June 2018, and October 2018 data points for

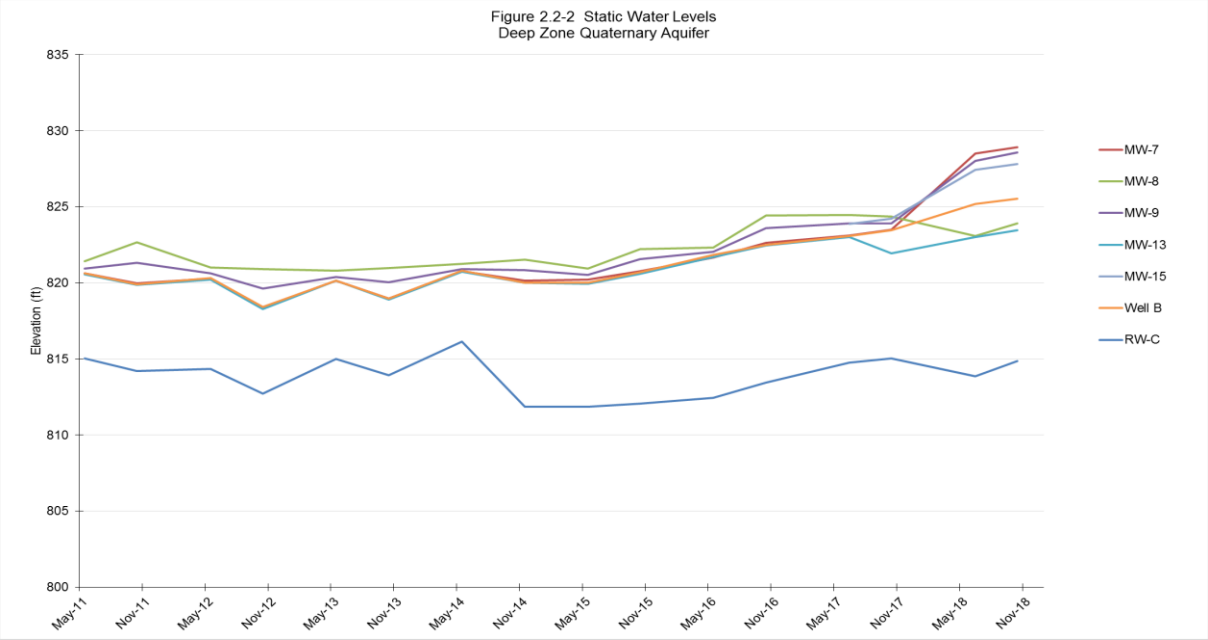
MW-3). The trend in groundwater elevation appears to be primarily increasing at a relatively low rate overall. In 2018 the south perimeter wells MW-4 and MW-5 have increased at a faster rate (by approximately 4 feet) since the fall 2017 sampling event, which is reflecting the prevalence of a potentiometric high to the immediate south of the Site in the shallow quaternary aquifer.

Table 2.2-2
Shallow Zone Quaternary Monitoring Wells
Static Water Level Statistics

Well	Max	Min	Ave	Std Dev	Trend Slope (x)
MW-1	823.93	818.71	821.46	1.61	0.0015
MW-2	824.41	820.62	822.21	1.43	0.0012
MW-3	**849.06**	813.51	820.82815.07	**12.59**	0.0065
MW-4	829.21	820.91	823.18	2.66	0.0024
MW-5	828.98	820.63	822.93	2.58	0.0023
MW-6	823.35	818.15	820.75	1.44	0.001
MW-10	823.55	818.51	820.83	1.39	0.0008
MW-12	823.18	818.21	820.74	1.41	0.0012
MW-14	823.47	818.31	820.95	1.55	0.0014

Attached Figures 3a and 3b present the October and June 2018 equipotential surface in the Shallow Quaternary Aquifer. Note: the post 2011 average static water level was used at MW-3 because of abnormally high measurements observed at MW-3. The data plots demonstrate a depressed potentiometric surface around RW-C, extending off-Site to the north and extending south beyond MW-3 in the source area to MW-4 and MW-5 at the south Site boundary. The data indicates a potentiometric high to the south of the Site and that groundwater is likely moving on-Site from all directions in the Shallow Quaternary Aquifer. The 2017 Potentiometric Surface data plots in Appendix F are included due to the larger data set of measured wells associated with the 2017 RI. The 2017 data plots further demonstrate a consistent depressed potentiometric surface between MW-10 and MW-14 to the north, MW-12 to the west, MW-2 to the southwest, MW-5 to the south, MW-4 to the southeast and MW-1 to the east. This area includes MW-3, MW-6, RW-C and the Source Area. The data plots indicate horizontal capture by RW-C within the Shallow Quaternary Aquifer that extends to the Site boundaries and beyond. The plot infers that groundwater in the Shallow Quaternary Aquifer likely moves onsite from all directions.

Figure 2.2-2 presents the post-2011 groundwater elevation data for the seven Site monitoring wells finished in the Deep Quaternary Aquifer. The data indicates the wells are generally behaving in a consistent manner with the exception of RW-C. RW-C's groundwater elevation is lower as it is the operating groundwater recovery well at the Site and its groundwater level can vary based on pumping rate. Temporal variation of water levels is evident within the wells in this aquifer, including RW-C, supporting the assumption that groundwater is recharging to this Aquifer at and near the Site.



In 2018, RW-C was pumping[4] at an average of approximately 29 gallons per minute (gpm). The goal of gradient control on this Site is to pump RW-C at a rate that will contain the plume that is present within the saturated thickness of the entire Quaternary Aquifer, preventing further migration of contamination to the west and north within this aquifer, and from potentially migrating into the underlying Bedrock Aquifer.

Table 2.2-3 provides the statistical variation in the groundwater elevation between 2011 and 2018 in the Deep Quaternary Aquifer. Excluding RW-C, the data indicates that the water levels deviate generally between approximately 1.3 ft. to 3.0 ft. (on average around 2.0 ft.). The trend in groundwater elevation appears to be primarily increasing at a relatively low rate overall, except at RW-C, which is generally constant.

Table 2.2-3
Deep Zone Quaternary Monitoring Wells
Static Water Level Statistics

Well	Max	Min	Ave	Std Dev	Trend Slope (x)
MW-7	828.92	818.39	821.79	3.03	0.0028
MW-8	824.46	820.79	822.27	1.38	0.0012
MW-9	828.57	819.62	822.31	2.68	0.0025
MW-13	823.46	818.30	820.93	1.51	0.0014
MW-15	827.82	823.88	825.84	2.08	0.0091
Well B	825.55	818.42	821.35	2.08	0.002
RW-C	816.13	811.85	813.85	1.32	-0.00009

Attached Figures 4a and 4b present groundwater elevation data collected from Site monitoring

[4] Flow data presented from RW-C has not been corrected for well inefficiency or loss.

wells completed in the Deep Quaternary Aquifer in October and June 2018. The data plots demonstrate a depressed potentiometric surface around RW-C which extends off-Site to the north beyond MW-13 and extends south into the source area to MW-7 and Well B. The data indicates a potentiometric high to the southeast of the source area that exists partially on-Site and extends off-site to the south between perimeter wells MW-9 and MW-15. With the exception of this mound at the southeast perimeter groundwater is moving on-Site from all directions in the Deep Quaternary Aquifer. The 2017 Potentiometric Surface data plots in Appendix F are included due to the larger data set of measured wells associated with the 2017 RI. The 2017 data plots further demonstrate a consistent depressed potentiometric surface between MW-13 to the north, MW-8 to the southwest and MW-9 to the south. This area includes MW-7, Well B, RW-C and the Source Area. The data infers horizontal capture by RW-C at depth within the Quaternary Aquifer. The plot infers that groundwater in the Deep Quaternary Aquifer likely moves onsite from the south and west.

Figure 2.2-3 presents the groundwater elevation data for the three Site monitoring wells finished in the OPDC Aquifer. The data indicates the wells are generally behaving in a consistent manner.

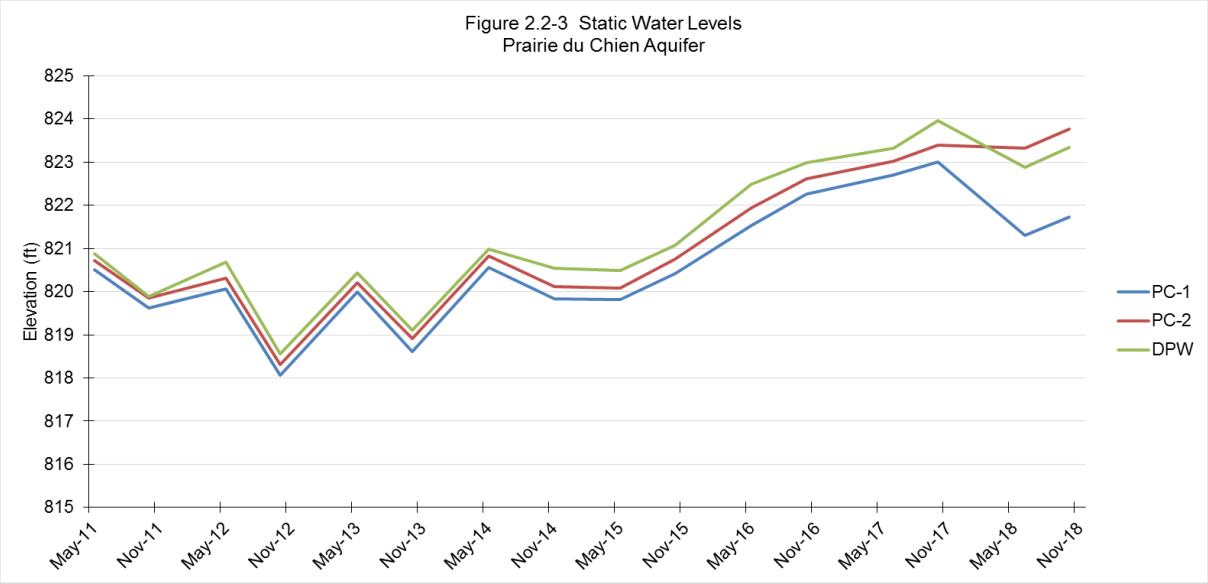


Table 2.2-4 provides the statistical variation in the groundwater elevation between 2011 and 2018. The data indicate that since the spring of 2011 the water levels deviate generally between approximately 1.4 ft. to 1.7 ft. (on average around 1.6 ft.). The trend in groundwater elevation appears to be increasing at a relatively low rate overall.

Table 2.2-4
Prairie du Chien Monitoring Wells
Static Water Level Statistics

Well	Max	Min	Ave	Std Dev	Trend Slope (x)
PC-1	823.00	818.07	820.63	1.38	0.0012
PC-2	823.76	818.31	821.14	1.67	0.0016
DPW	823.97	818.55	821.35	1.62	0.0015

Attached Figures 5a and 5b present groundwater elevation data collected from Site monitoring

wells completed in the OPDC Aquifer in October and June 2018. The data plots demonstrate a potentiometric high to the south of the Site with flow directions north onto the Site, north at the Site, north/northwest off of the Site towards PC-1 from the west portion of the Site, and north/northeast off-Site from the east portion of the Site. Because the data set for the 2018 sampling events is particularly small, the interpretations of groundwater flow in the OPDC aquifer can only be made for the immediate Site area versus the region as a whole. The 2017 Potentiometric Surface data plots in Appendix F are included due to the larger (regional) data set of measured wells associated with the 2017 RI. The 2017 data plots demonstrate a consistent potentiometric surface with a flow direction to the west/northwest at the Site with groundwater moving in a west/southwest direction off Site. This 2018 AMR and prior AMRs had only Site data to plot. This data is consistent with prior interpretations at the Site made in past AMRs and the 2015 EDR.

Vertical head can be evaluated by comparing water level data for Site nested wells or those wells constructed in very close proximity to each other but screened at different elevations in the underlying aquifers. Based on proximity of well heads at the Site, the shallow/deep wells groupings in the Quaternary Aquifer (MW-2/MW-8, MW-5/MW-9, MW-3/MW-7, MW-14/MW-13, and MW-4/MW-15) can generally be considered well nests. It is recognized that evaluation of vertical flow at the Site may have some error as well screen lengths are variable at these locations and numerous geologic heterogeneities are found across well screens at some of these locations. It is also recognized that some Quaternary Aquifer monitoring wells are more than 25 feet from each other and therefore have additional limitation as well nests.

Table 2.2-5 summarizes groundwater vertical gradients calculated[5] from groundwater elevations reported above for the two sampling periods using midpoints of each well screen. The data indicate generally consistent results between the two sampling periods. Based on the area's generally flat geography and sandy surficial geology, the area of the Site[6] would promote recharge and potentially cause a localized downward gradient and Quaternary Aquifer well nests would be expected to indicate a downward gradient. The wells influenced by RW-C would be expected to have an upward gradient at depth as water is drawn upwards from depth towards the recovery well relative to the water level in the shallow well of the nest. The well nests MW-5/MW-9 and MW-4/MW-15 along the southern boundary do indicate a downward gradient. This is interpreted as potentially being near the southern limit of RW-C influence at depth in this aquifer at the Site. RW-C influence is greater at the water table than at depth. Nests MW-7/DPWand MW-2/MW-8, which are located nearer to RW-C, have an upward gradient indicating greater RW-C influence. Well nest MW-3/MW-7(highlighted in red) had a downward gradient for both 2018 sampling events due to MW-3 having abnormally high static water level measurements Well nest MW-7/DPW is a vertical gradient indicator between the OPDC Aquifer and overlying Deep Quaternary Aquifer. This nest indicates an upward gradient, interpreted as being caused by typical discharge from OPDC into the Deep Quaternary Aquifer, influence at depth by RW-C, or a combination of both.

[5] EPA On-Line Tools for Site Assessment Calculation (2015) accessed on line at http://www3.epa.gov/ceampubl/learn2model/part-two/onsite/vgradient02.html.

[6] The Site itself is largely paved and/or covered by building; limiting direct contact with underlying porous alluvia.

Table 2.2-5 Potential Well Nest Vertical Gradients-Quaternary Aquifer				
Well Interval Shallow/Deep	Jun-17		Oct-17	
	Gradient	Direction	Gradient	Direction
MW-2/MW-8	0.003364	up	0.006054	up
MW-3/MW-7	0.5944	down	0.4470	down
MW-14/MW-13	0.005269	down	0.05269	up
MW-5/MW-9	0.007002	down	0.01334	down
MW-4/MW-15	0.02133	down	0.01700	down
MW-7/DPW(OPDC)	0.01686	up	0.08431	up

Discussion and Conclusions for Site 2018 Groundwater Flow

Comparing water levels for the spring and fall sampling events in 2017 and 2018 indicates:

- For the Shallow Quaternary Aquifer water levels generally decreased in the spring of 2018 relative to the spring of 2017 by an average of 0.1 ft. For the fall event, water levels increased in 2018 relative to 2017 by an average of 0.4 ft. This excludes the data from MW-3 for both sampling events as the water level in this well is anomalous and is found to be an outlier compared with the other shallow wells on the Site;

- For the Deep Quaternary Aquifer, water levels generally increased in the spring of 2018 relative to the spring of 2017 by an average of 2.3 ft. For the fall event, water levels increased in 2018 relative to 2017 by an average of 2.8 ft. This excludes the data from RW-C for both sampling events as elevations in this well are dictated by pumping; and

- For the OPDC Aquifer, water levels generally decreased in the spring of 2018 relative to the spring of 2017 by an average of 0.5 ft. For the fall event, water levels also decreased in 2018 relative to 2017 by an average of 0.5 ft.

The 2018 groundwater conditions indicate that:

- Groundwater flow direction in the Shallow/Deep Quaternary and OPDC Aquifers remains generally consistent with previous monitoring events;

- Groundwater horizontal capture by RW-C is demonstrated by radial flow horizontally toward the recovery well in both the Shallow and Deep Quaternary Aquifer;

- Groundwater flow in the OPDC Aquifer is from south to north at the Site and generally east to west, area-wide; and

- Groundwater vertical capture by RW-C throughout the saturated thickness of the Quaternary Aquifer is demonstrated by the upward vertical gradient at well nests located between the source area and the recovery well.

In summary, the groundwater elevations in the Shallow and Deep Quaternary Aquifers generally increased in 2018 by approximately 0.3 and 2.5 feet, respectively. However, this increase did not alter the general flow direction within the aquifers. The groundwater elevation in the OPDC Aquifer

generally decreased in 2018 by approximately 0.5 feet. However, this decrease did not alter the general flow direction within the aquifer. Site groundwater flow within the Quaternary Aquifer appears to flow radially to a low point at RW-C; and thus, infers horizontal capture by RW-C within the Quaternary Aquifer that extends to, and beyond, the Site boundaries. Site groundwater flow within the OPDC Aquifer appears to flow to the northwest, north and northeast (radially). These flow interpretations are consistent with the assessment for previous years sampling events.

It should again be noted that less regional wells (non-Site) were measured for static water levels in the 2018 monitoring events than in the 2017 monitoring events, because of requirements for the 2017 RI. Due to this less expansive data set, 2018 potentiometric plots are more constrained to the Site and due south, where Reviva shared water level information from their monitoring wells. It is recommended that for future annual monitoring as many regional wells as possible should be measured for static water levels, such as: USGS MW-2 and MW-3, Fridley Wells P-1 and P-2, and NIROP wells 13-S, 14-S, 15-S, and 16-S for the Shallow Quaternary Aquifer; NIROP monitoring wells 10-D and 11-D for the Deep Quaternary Aquifer; and MPCA MW-1, MW-2, and MW-3, and Fridley Well 13 for the OPDC Aquifer.

3.0 VOC ANALYTICAL RESULTS

Historically, since groundwater sampling started at the Site in the early 1980s, 34 different VOCs have been reported as present in Site groundwater. Since the fall 2010 response action at the Site (starting with the spring 2011 sampling event), only 15 VOCs have been detected at least once. This is a reduction of 56% in the number of compounds that were found historically present in Site groundwater. These 15 VOCs, and their most restrictive compliance standard, are summarized in Table 3.0-1.

Table 3.0-1
VOCs Detected in Site Wells
after 2010 Site Response Action

VOC	µg/L	Compliance Standard
Acetone	4,000	HRL
Allyl Chloride	30	HRL
2-Butanone (MEK)	4,000	HRL
Chloroform	30	HRL
1,1-Dichloroethane (DCA)	80	RAA
1,1-Dichloroethene (DCE)	200	HRL
1,4-Dioxane	1	HRL
cis-1,2-Dichloroethylene (cis DCE)	6	HBV
trans-1,2-Dichloroethylene (trans DCE)	40	HRL
Methylene Chloride	5	HRL
Tetrachloroethylene (PCE)	4	HBV
Tetrahydrofuran	600	HBV
1,2,3-Trichlorobenzene	-	NCS
Trichloroethylene (TCE)	0.4	HRL
Vinyl chloride	0.2	HRL

HRL: MDH[7] Health Risk Limits — HBV: MDH Health Based Values
RAA: MDH Risk Assessment Advice — NCS: No Compliance Standard
µg/L : micrograms per liter

[7] Minnesota Department of Health (MDH) Human Health-Based Water Guidance Table. Accessed on line at http://www.health.state.mn.us/divs/eh/risk/guidance/gw/table.html.

The following is an overview of the VOC data collected since the spring of 2011 for each of Shallow Quaternary Aquifer, Deep Quaternary Aquifer, and OPDC Aquifer wells. VOC concentrations for each sampling event since the spring of 2011 are tabulated for each well in Appendix C. Historic (prior to 2011) tabulated VOC concentrations and their trends through time can be found in the EDR. VOC concentrations[8] are compared to the compliance standard listed in Table 3.0-1. Only those VOCs with more than two detections since the spring of 2011 are evaluated graphically in the figures provided in this section. In addition, the mathematical difference in average concentration for each VOC present after 2011 and prior to 2011 has been calculated. Finally, the difference between the sum of the average concentration for each VOC since 2011 is compared to the sum of the average concentration for each VOC prior to 2011 to evaluate the overall VOC loss/gain relative to the 2010 response action at the Site.

3.1 SHALLOW QUATERNARY AQUIFER WELLS

The Shallow Quaternary Aquifer wells are identified as MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-10, MW-12 and MW-14. See attached Figures 3a and 3b for well locations and plots of October 2018 and June 2018 static water levels, respectively. Where referenced in this section, the well location relative to its position as up, down or side gradient, is based on area-wide flow shown in Figures 3a and 3b and 2017 Potentiometric Surface data plots included in Appendix F where appropriate. However, of note, the majority of these wells are influenced by pumping at RW-C, and the gradient relative to the recovery well does not reflect area-wide flow.

MW-1 is located northeast of the Site on the north adjacent property and is considered an upgradient east perimeter well. As described in the EDR (Section 4.2) and tabulated in the 2014 AMR, it has been monitored since 1982. Four VOCs were detected in MW-1 prior to 2011 with a sum of average VOC concentrations of 36.6 µg/L. Only PCE has been detected at MW-1 since 2011 and has only been detected in the spring and fall 2017 sampling events at concentrations an order of magnitude below the compliance standard; therefore, no data is further evaluated for this well. Since 2011, the sum of average VOC concentrations at MW-1 has been reduced to 0.09 µg/L, or by ~100%. The attached Figures 3a and 3b indicate groundwater at MW-1 is now moving towards RW-C. Any PCE concentration detected at this well will move towards RW-C and will add to the contaminant mass at RW-C.

MW-2 is located in the southwest corner of the Site and is nested with deep well MW-8 and is considered a formerly downgradient, southwest perimeter well. Flow at this well now moves to the northeast to RW-C and provides upgradient water quality at the Site. MW-2 was sampled in the fall monitoring event in 2018. As described in the EDR (Section 4.2) and tabulated in the 2014 AMR, it has been monitored since 1982. Eleven VOCs were detected at this well prior to 2011. Since the spring of 2011, four VOCs have been present at MW-2: DCA, cis DCE, PCE and TCE. Table 3.1-1 summarizes the statistics for those 4 VOCs found at MW-2 since 2011. Note the data presented excludes the spring sampling events from May of 2011 to May of 2016, and June 2018, during which MW-2 was not sampled.

[8] Trend, linear and statistical analysis including maximum, minimum, and average were performed using an Excel spreadsheet

Table 3.1-1 VOC Concentration Statistics for MW-2					
VOC Present	**Number of Times Detected**	**Maximum Concentration (µg/L)**	**Minimum Concentration (µg/L)**	**Average Concentration (µg/L)**	**MDH Compliance Standard (µg/L) and Source**
DCA	4	1.10	0	0.30	80 RAA
cis DCE	9	3.40	1.36	2.47	6 HBV
PCE	2	0.88	0	0.17	4 HBV
TCE	3	1.10	0	0.30	0.4 HRL

Since 2011, PCE has been detected twice, TCE has been detected three times, DCA has been detected four times, and cis-DCE has been detected nine times (during each fall sampling event with the additional detection occurring in the spring 2017 sampling event). The PCE, DCA, and cis DCE detected concentrations are well below their applicable compliance standards. However, the detected concentrations of TCE in the 2017 monitoring events (0.92 and 1.10 µg/L) were above the compliance standard of 0.4 µg/L. TCE was not detected in the fall 2018 monitoring event. The pre 2011 average concentration for DCA, cis DCE, TCE, and PCE was 1.4 µg/L, 1.6 µg/L, 12 µg/L, and 12 µg/L respectively. This represents a reduction of 79% for DCA, 98% for TCE, and 98% for PCE but a gain of 60% for cis DCE. For the sum of average VOC concentrations, pre 2011 (11 VOCs) it was 124.1 µg/L; and post 2011 (4 VOCs) it is 3.1 µg/L. This is an overall VOC reduction of 98% at MW-2. The attached Figures 3a and 3b indicate groundwater at MW-2 is now moving towards RW-C. The VOC concentrations found at this well move towards the Source Area well (MW-3) and RW-C and add to the contaminant mass at these locations. DCA, Cis DCE, and TCE are the only VOCs found at MW-2 since the spring of 2011 on more than two occasions. Due to infrequent detection (at levels two orders of magnitude below compliance), DCA at MW-2 is not evaluated further.

Figure 3.1-1a presents the PCE, and TCE concentration trends at MW-2 since the spring of 2011 relative to their compliance standard. The most recent and only PCE detections since the spring of 2011 indicate a generally constant[9] trend at MW-2 with concentrations below the compliance standard of 4 µg/L. The data indicates a generally constant trend in TCE concentrations since the first time it was detected in MW-2 during the fall 2016 sampling event. These TCE concentrations detected exceed the compliance standard of 0.4 µg/L.

[9] For purpose of this assessment, Landmark considers concentrations as “generally constant” if the slope of the regression line is ≤ 0.0005.

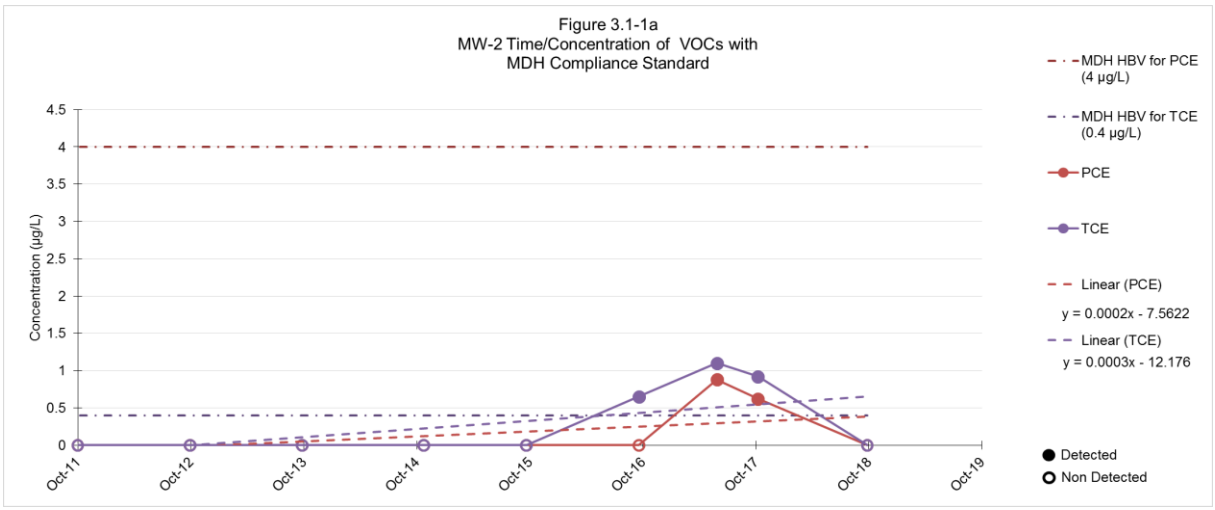
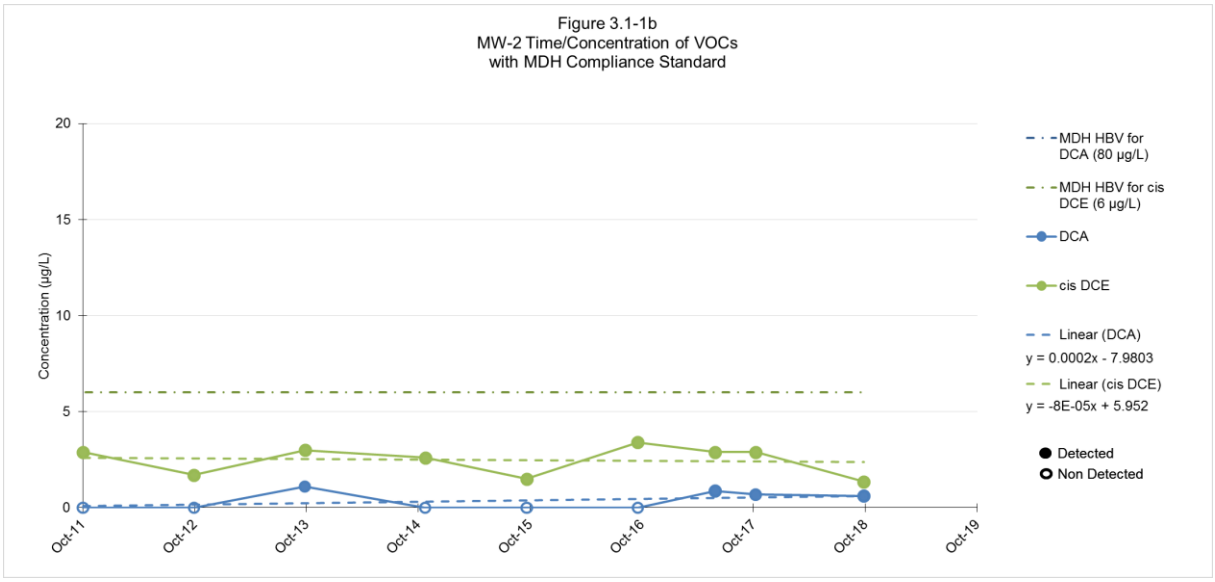


Figure 3.1-1b presents the cis DCE and DCA concentration trends at MW-2 since the spring of 2011 relative to their compliance standards. The data indicates that since the spring of 2011 the concentration of cis DCE is generally constant and below its respective compliance standard of 6 µg/L. The data indicates that since the spring of 2011 the concentration of DCA is generally constant and is well below its respective compliance standard of 80 µg/L when detected.

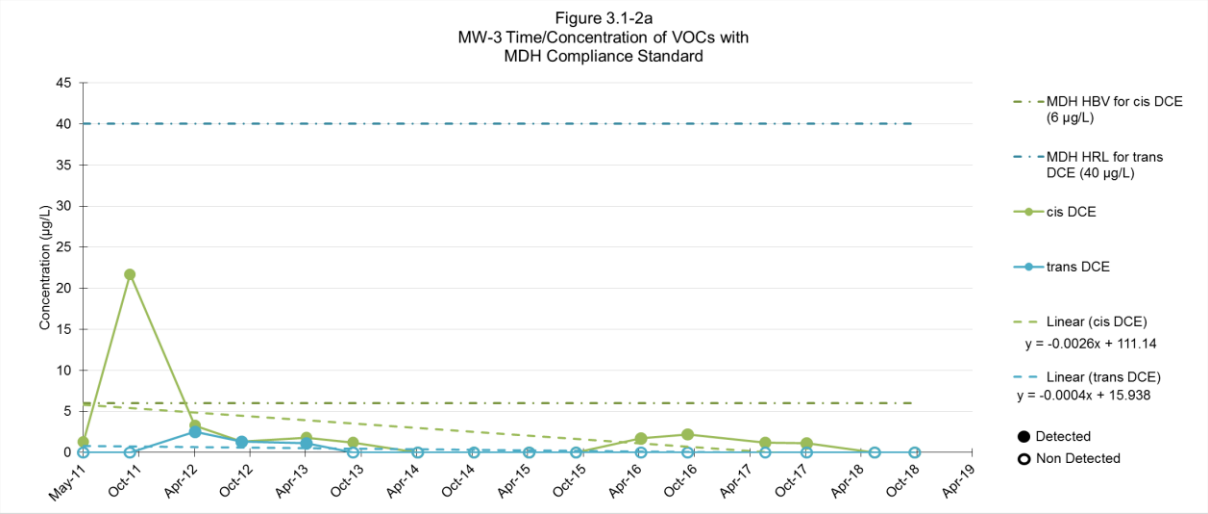


MW-3 is located adjacent/side gradient to the Source Area and is nested with Deep Quaternary Aquifer well MW-7. It is considered to represent Source Area groundwater quality. The attached Figures 3a and 3b indicate groundwater at MW-3 is now moving towards RW-C. As described in the EDR (Section 4.2) and tabulated in the 2014 AMR, it has been monitored since 1982. Nineteen VOCs were detected at this well prior to 2011. Since the spring of 2011, six VOCs have been present at MW-3: Acetone, MEK, cis DCE, trans DCE, PCE and TCE. Table 3.1-2 summarizes the statistics for VOCs found at MW-3 since 2011.

Table 3.1-2 VOC Concentration Statistics for MW-3					
VOC Present	Number of Times Detected	Maximum Concentration (µg/L)	Minimum Concentration (µg/L)	Average Concentration (µg/L)	MDH Compliance Standard (µg/L) and Source
Acetone	4	54.0	0	8.61	4,000 HRL
MEK	5	19.1	0	3.06	4,000 HRL
cis DCE	10	21.7	0	2.30	6 HBV
trans DCE	3	2.5	0	0.31	40 HRL
PCE	16	264	0.63	41.84	4 HBV
TCE	14	79	0	16.40	0.4 HRL

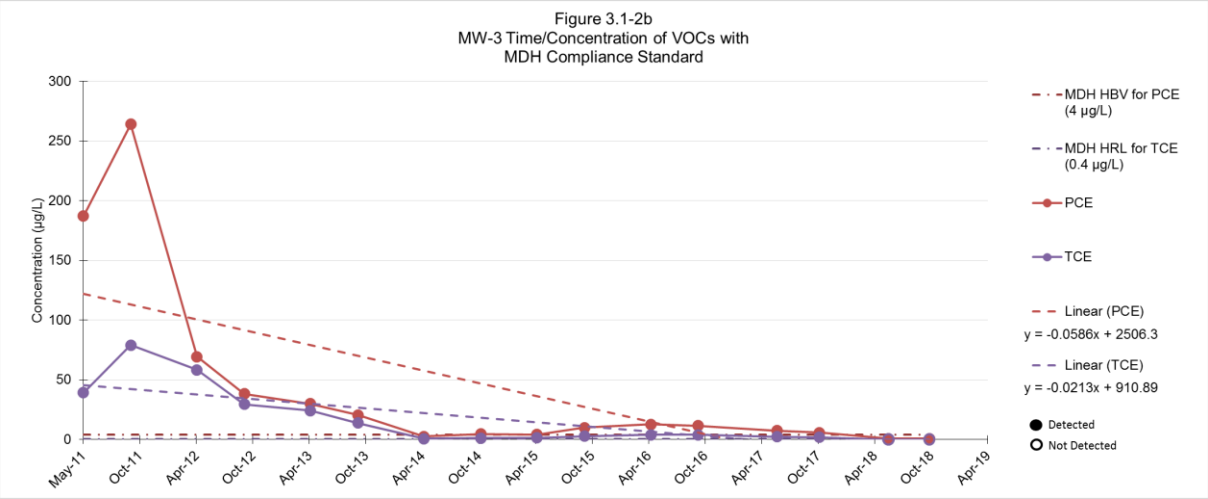
Acetone (54.0, 10.6, 31.1, and 42.1 µg/L) was detected in November 2014, October 2017, June 2018, and October 2018 while MEK (19.1, 15.5, 1.9, 5.7, and 6.7 µg/L) was detected in May 2014, November 2014, June 2017, June 2018, and October 2018, respectively. Both VOCs have a compliance standard of 4,000 µg/L. The concentrations detected do not approach this standard; therefore, these compounds were not further evaluated statistically or plotted to evaluate their trend over time. Comparing pre 2011 and post 2011 average concentrations for the remaining four VOCs: sum[10] DCE (148 and 2.61 µg/L) decreased 98%; PCE (399.8 and 41.84 µg/L) decreased 90% and TCE (170 and 16.40 µg/L) decreased 90%. For the sum of average VOC concentrations, pre 2011 (19 VOCs) it was 684.3 µg/L; and post 2011 (7 VOCs) it is 72.5 µg/L. This is an overall VOC reduction of 89% at MW-3.

Figure 3.1-2a presents the cis DCE and trans DCE concentration trends at MW-3 since 2011 relative to their respective compliance standards. The data over time indicates the concentrations of both VOCs have decreased to non-detectable levels. The cis DCE concentration dropped below the compliance standard in April 2012 and had not been detected between October 2013 and May 2016. However, the cis DCE concentration rebounded to an average concentration of 1.6 µg/L during the 2016 and 2017 sampling events, which is below its standard. Cis DCE was not detected in the 2018 sampling events. Trans DCE has never exceeded its standard and has not been detected since May 2013.



[10] Prior to 2011, the AMRs reported for some wells the sum concentration of cis and trans 1,2-DCE. For comparative purpose these two isomers are again summed where noted throughout this AMR.

Figure 3.1-2b presents the TCE and PCE concentration trends at MW-3 since 2011 relative to their respective compliance standards. The data indicates both VOCs were detected during each sampling event, with the exception that TCE was not detected in the most recent 2018 sampling events. The data over time indicates the concentration of both VOCs are continuing to decrease. The PCE concentration dropped below the compliance standard of 4 µg/L during the May 2014 sampling event; however, the PCE concentration rebounded to an average concentration of 12.2 µg/L in the 2016 sampling events, exceeding the standard. PCE concentrations in the 2017 spring and fall sampling events dropped to an average of 6.5 µg/L; still exceeding the standard. PCE concentrations in the most recent 2018 sampling events dropped to an average of 0.7 µg/L, which is below the standard. The overall trend continues to be a decrease in PCE concentration for this monitoring well. The TCE concentration is above the compliance standard of 0.4 µg/L for all samples collected during each sampling event; however, the TCE concentration dropped to a minimum concentration of 0.64 µg/L during the May 2014 sampling event and rebounded to an average concentration of 4.0 µg/L in the 2016 sampling events. TCE concentrations again dropped below the compliance standard in both the spring and fall 2017 sampling events with an average of 2.15 µg/L. TCE was not detected in the spring or fall 2018 sampling events. The overall trend continues to be a decrease in TCE concentration for this monitoring well.



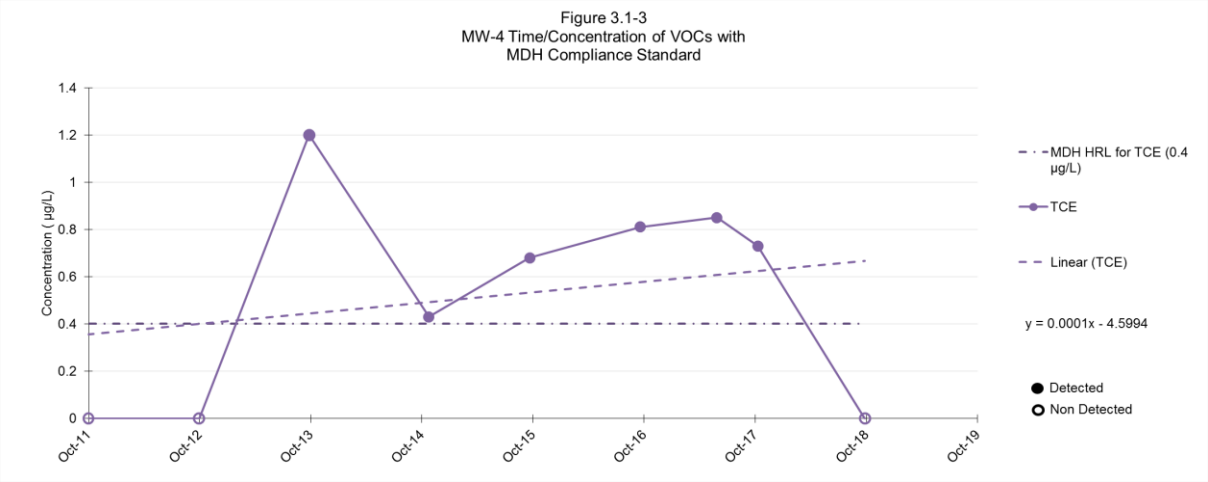
MW-4 is located in the southeast corner of the Site and is considered an upgradient/side gradient, southeast perimeter well. Flow from this well now moves towards RW-C and represents upgradient water quality. Any VOCs found at this well will move towards the Source Area wells and/or RW-C and will add to the contaminant mass at these locations. As described in the EDR (Section 4.2) and tabulated in the 2014 AMR, MW-4 has been monitored since 1982. Three VOCs were detected at MW-4 prior to 2011. Only one VOC, TCE, has been present since the spring of 2011. Table 3.1-3 summarizes the statistics for TCE found at MW-4 since 2011. Note the data presented excludes the spring sampling events prior to the spring 2017 sampling event.

Table 3.1-3 VOC Concentration Statistics for MW-4					
VOC Present	**Number of Times Detected**	**Maximum Concentration (µg/L)**	**Minimum Concentration (µg/L)**	**Average Concentration (µg/L)**	**MDH Compliance Standard (µg/L) and Source**
TCE	6	1.2	0	0.52	0.4 HRL

Since 2011, TCE has been detected six times and is above the MDH Compliance Standard for each detection. Comparing pre 2011 and post 2011 average concentrations at MW-4 for TCE (1.7 and 0.52 µg/L), it decreased 70%. For the sum of average VOC concentrations, pre 2011 (3 VOCs) it was 9.7 µg/L; and post 2011 (1 VOC) it is 0.52 µg/L. This is an overall VOC reduction of 95% at MW-4.

Figure 3.1-3 presents the TCE concentration at MW-4 trend since 2011 relative to its compliance standard. The data indicates that since 2011 the concentration of TCE is generally constant and the concentration is above its respective compliance standard when detected. As noted above, TCE has been detected at this monitoring point sporadically in the past at similar concentrations. TCE was not detected in the fall 2018 sampling event and MW-4 was not sampled in the spring 2018 sampling event.

Figure 3.1-3
MW-4 Time/Concentration of VOCs with
MDH Compliance Standard



As described in the EDR (Section 4.2), there is no known source of contaminants in the area of MW-4. It is believed any VOCs present at MW-4 are coming from an off-site source to the southeast of the Site. The attached Figures 3a and 3b indicate groundwater at MW-4 is now moving towards RW-C.

MW-5 is located south of the Site building, along the southern Site boundary, is nested with deep well MW-9 and is considered an upgradient south perimeter well. Flow from this well now moves towards RW-C and represents upgradient water quality. Any VOCs detected at this well move towards the Source Area wells and RW-C and adds to the contaminant mass at these locations.

As tabulated in the 2014 AMR, MW-5 has been monitored since 1983. Fourteen VOCs were detected at MW-5 prior to 2011. Five VOCs have been present since 2011: cis DCE, trans DCE,

PCE, TCE, and Vinyl chloride. Table 3.1-4 summarizes the statistics for VOCs found at MW-5 since 2011. Note the data presented excludes the spring sampling events except for the spring 2017 sampling event.

Table 3.1-4
VOC Concentration Statistics for MW-5

VOC Present	Number of Times Detected	Maximum Concentration (µg/L)	Minimum Concentration (µg/L)	Average Concentration (µg/L)	MDH Compliance Standard (µg/L) and Source
cis DCE	9	10.9	1.8	5.76	6 HBV
trans DCE	8	2.8	0	2.15	40 HRL
PCE	9	12.1	1.4	4.3	4 HBV
TCE	9	23.8	12.1	17.92	0.4 HRL
Vinyl chloride	2	0.41	0	0.06	0.2 HRL

Comparing pre 2011 and post 2011 average concentrations for these four VOCs: sum DCE (13.7 and 7.9 µg/L) decreased 42%; PCE (30.1 and 4.3 µg/L) decreased 86% and TCE (26.4 and 17.9 µg/L) decreased 32%. For the sum of average VOC concentrations, pre 2011 (14 VOCs) was 129.5 µg/L; post 2011 (5 VOCs) it is 30.1 µg/L. This is an overall VOC reduction of 77% at MW-5.

Figure 3.1-4a presents the cis DCE and trans DCE concentration trends at MW-5 since 2011 relative to the respective compliance standards. The data indicates that cis DCE concentrations are decreasing and trans DCE concentrations are increasing since 2011. Since 2011, the cis DCE concentration exceeds its compliance standard at four sampling events, but is in the same order of magnitude, and the trans DCE concentration is below its compliance standard for each sampling event.

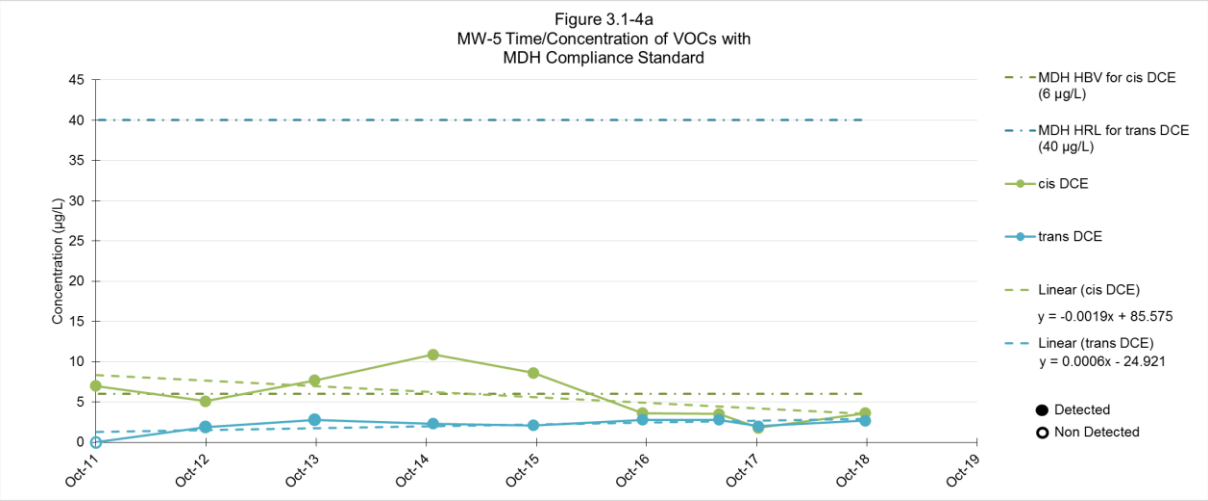
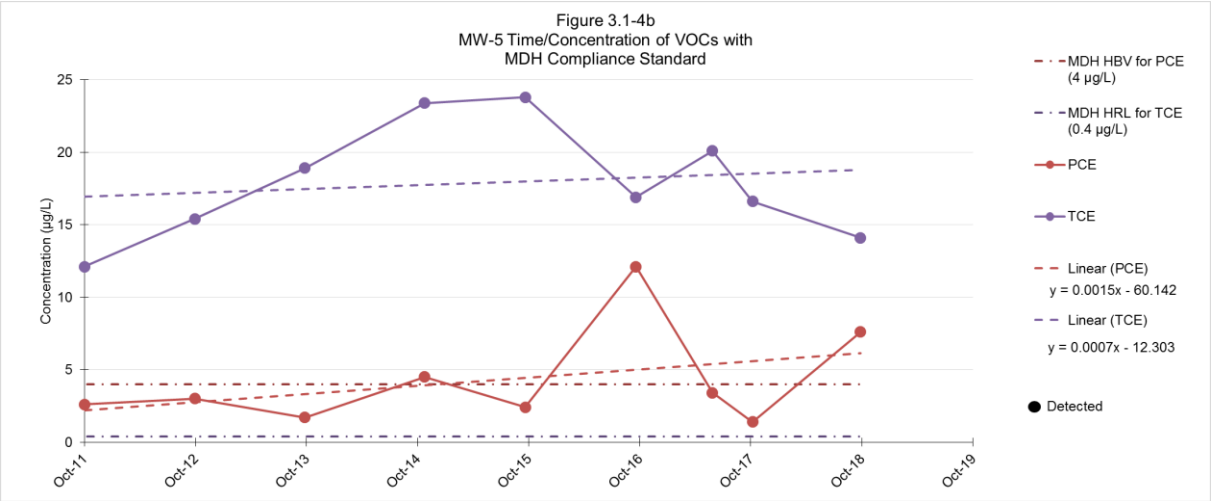


Figure 3.1-4b presents the PCE and TCE concentration trends at MW-5 since 2011 relative to its compliance standard. The data indicates that the concentration of both VOCs is increasing during this time period. The PCE has been below its compliance standard for all sampling events except November 2014, October 2016, and October 2018. The concentration of TCE exceeds its

compliance standard for each sampling event.



As described in the EDR (Section 4.2), there is no known source of contaminants in the area of MW-5. It is believed these VOCs are coming from an off-site source to the south of this well. The attached Figures 3a and 3b indicate groundwater at MW-5 is now moving towards and is being captured by RW-C.

MW-6 is located near RW-C, north of the Site building along the northern Site boundary. It is downgradient of the Source Area and represents Source Area water quality in the Shallow Quaternary Aquifer near the recovery well, based on RW-C influence at this point. Based on static water levels between MW-3, MW-6, and RW-C, VOC contaminated groundwater at MW-6 is moving towards and being captured by RW-C. As tabulated in the 2014 AMR, MW-6 has been monitored since 1983. Seventeen VOCs were detected at MW-6 prior to 2011. Four VOCs have been present at MW-6 since 2011: acetone, methylene chloride, PCE and TCE. Table 3.1-5 summarizes the statistics for VOCs found at MW-6 since 2011.

Table 3.1-5
VOC Concentration Statistics for MW-6

VOC Present	Number of Times Detected	Maximum Concentration (µg/L)	Minimum Concentration (µg/L)	Average Concentration (µg/L)	MDH Compliance Standard (µg/L) and Source
Acetone	1	82.5	0	5.16	4000 HRL
Methylene Chloride	1	18.9	0	1.18	5 HRL
PCE	16	3,000	31.8	696.09	4 HBV
TCE	10	28.7	0	6.01	0.4 HRL

The data indicates that acetone has been detected once at a concentration well below its compliance standard. Methylene chloride has been detected once at a value that exceeds its compliance standard of 5.0 µg/L, however, the average methylene chloride concentration at MW-6 since 2011 is 1.18 µg/L. Based on their limited occurrence at MW-6, acetone and methylene chloride have not been further evaluated statistically or plotted to evaluate trends. PCE has been detected during each sampling event at a level that exceeds its compliance standard. TCE is detected sporadically and when it is detected it exceeds its compliance standard. Comparing pre 2011 and post 2011 average concentrations for these two VOCs: PCE (2,126 and 696.09 µg/L)

decreased 67% and TCE (18.3 and 6.01 µg/L) decreased 67%. For the sum of average VOC concentrations, pre 2011 (17 VOCs) it was 2,563.8 µg/L; post 2011 (4 VOCs) it is 708.44 µg/L. This is an overall VOC reduction of 72% at MW-6.

Figure 3.1-5a presents the PCE concentration trend at MW-6 since 2011 relative to its compliance standard. The data indicates that since 2011 the concentration of PCE is decreasing at MW-6; however, the PCE concentration exceeds its compliance standard at each sampling event.

Figure 3.1-5a
MW-6 Time/Concentration of VOCs with
MDH Compliance Standard

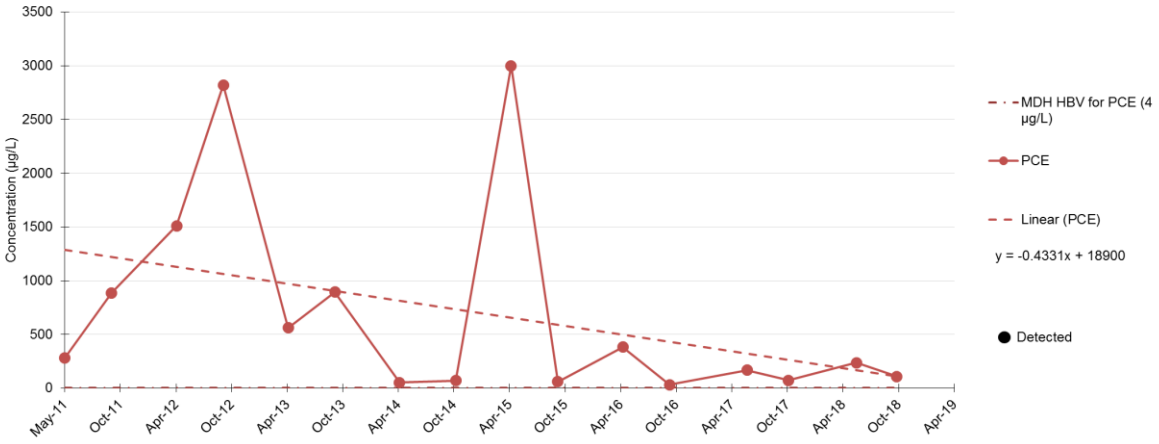
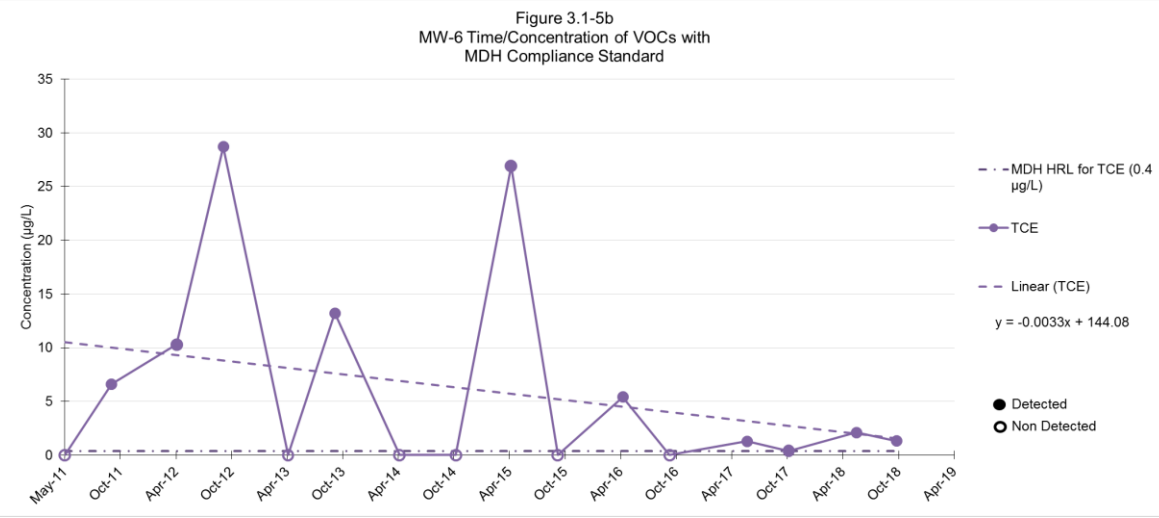


Figure 3.1-5b presents the TCE concentration trend at MW-6 since 2011 relative to its compliance standard. The data indicates that since 2011 the concentration of TCE is decreasing at MW-6 and the TCE concentration exceeds its compliance standard of 0.4 µg/L when detected, with the exception of the fall 2017 detection of 0.39 µg/L.

Figure 3.1-5b
MW-6 Time/Concentration of VOCs with
MDH Compliance Standard



MW-10 is located north of the Site on the adjacent property and is considered a side gradient, north perimeter well. Flow from this well now moves towards RW-C and represents upgradient water quality. Any VOCs detected at this well will add to the contaminant mass at RW-C. As

described in the EDR (Section 4.2) and tabulated in the 2014 AMR, it has been monitored since 1985. Six VOCs were detected in MW-10 prior to 2011 with a sum of average VOC concentrations of 37.2 µg/L. Since 2011, the VOCs found at MW-10 have been reduced to acetone and allyl chloride, which were both detected in the spring 2017 sampling event, at concentrations of 53.5 and 3.7 µg/L, respectively. Acetone was also detected at other northern Site perimeter wells (MW-12 and MW-14) during this sampling event, but was not found in Source Area wells. This was the only detection of allyl chloride. Neither VOC was detected in the subsequent fall 2017 sampling event or in the fall 2018 sampling event. The sum of average VOC concentrations detected in MW-10 since 2011 is 6.4 µg/L. This equates to an 83% reduction of VOCs at MW-10 since 2011. The attached Figures 3a and 3b indicate groundwater at MW-10 is now moving towards RW-C.

MW-12 is located northwest of the Site on the north adjacent property and is considered a side-gradient or downgradient west perimeter well. As tabulated in the 2014 AMR, MW-12 has been monitored since 1994. Flow from this well now moves towards RW-C and represents upgradient water quality as indicated by Figures 3a and 3b. Three VOCs were detected at MW-12 prior to 2011. Two VOCs are consistently present since 2011: PCE and TCE. Acetone and cis DCE were each detected once since 2011, during the June 2017 sampling event. Table 3.1-6 summarizes the statistics for VOCs found at MW-12 since 2011.

Table 3.1-6
VOC Concentration Statistics for MW-12

VOC Present	Number of Times Detected	Maximum Concentration (µg/L)	Minimum Concentration (µg/L)	Average Concentration (µg/L)	MDH Compliance Standard (µg/L) and Source
Acetone	1	52.3	0	3.27	4000 HRL
cis DCE	1	0.12	0	0.01	6 HBV
PCE	15	23.6	0	14.33	4 HBV
TCE	12	1.3	0	0.59	0.4 HRL

The data indicates PCE has been detected during each sampling event at a level that exceeds its compliance standard. TCE also has been detected during each sampling event since October 2013 at levels that exceed its compliance standard. Comparing pre 2011 and post 2011 average concentrations for these two VOCs: PCE (12.8 and 14.3 µg/L) increased 12% and TCE (2.3 and 0.59 µg/L) decreased 75%. For the sum of average VOC concentrations, pre 2011 (3 VOCs) it was 20.7 µg/L; post 2011 (4 VOCs) it is 18.2 µg/L. This is an overall VOC reduction of 12% at MW-12. The attached Figures 3a and 3b indicate the groundwater elevation at MW-12 is very similar to that of the monitoring wells located to its east (MW-6 and MW-14). Based on static water levels found at these three wells during the June and October 2018 monitoring events, the groundwater flows towards RW-C from MW-12.

Figure 3.1-6a presents the PCE concentration trend at MW-12 since 2011 relative to its compliance standard. The data indicates that the concentration of PCE is decreasing since 2011 at MW-12. The PCE concentration exceeds its compliance standard at each sampling event with the exception of the fall 2018 sampling event when it was not detected.

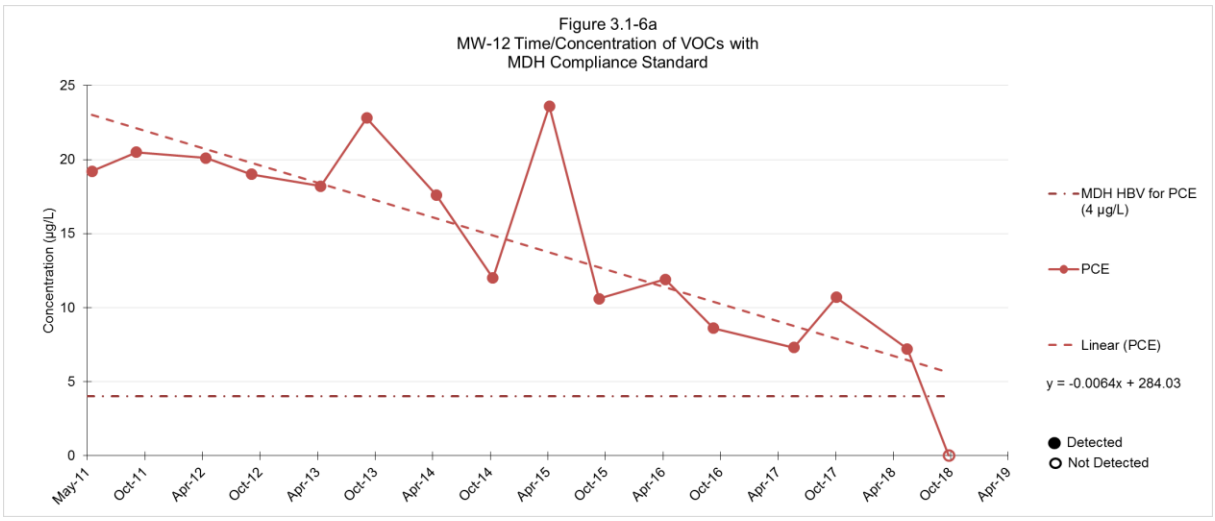
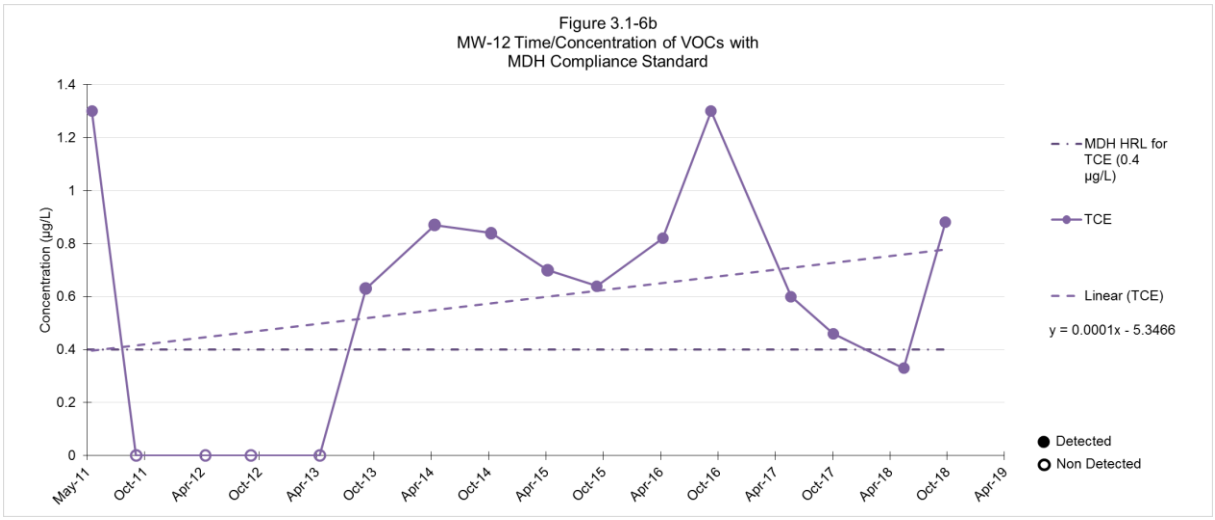


Figure 3.1-6b presents the TCE concentration trend at MW-12 since 2011 relative to its compliance standard. The data indicates that the concentration of TCE is generally constant and within the same order of magnitude at MW-12. Since 2011, the TCE concentration exceeds its compliance standard of 0.4 µg/L when detected, with the exception of the spring 2018 sampling event when it was detected at a concentration of 0.3 µg/L.



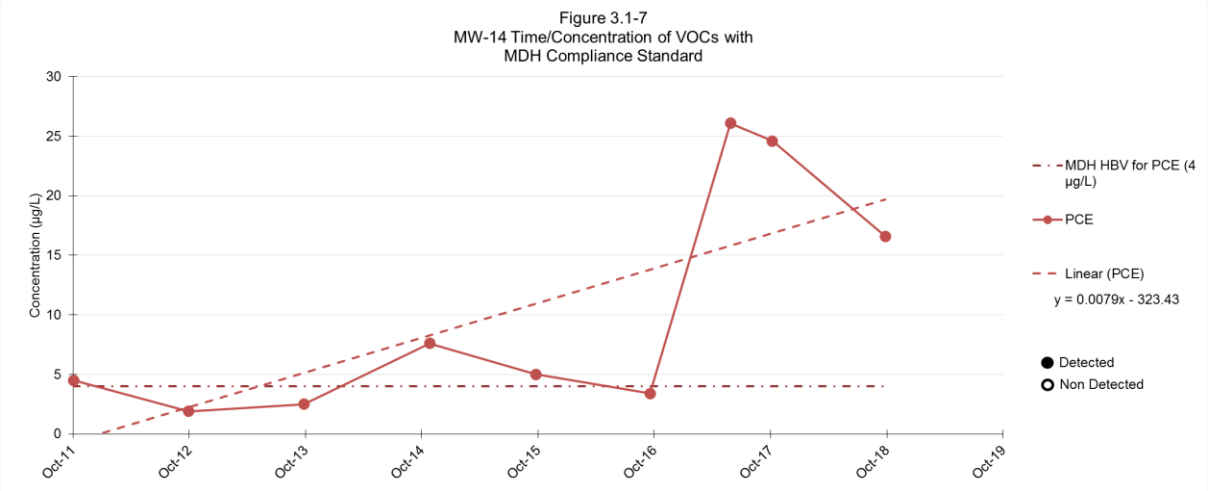
MW-14 is located north of the Site on the north adjacent property and a side gradient well. As discussed in the EDR, it is now considered a downgradient performance monitoring well for RW-C. MW-14 was installed and first sampled in 2010 and is nested with deep well MW-13. PCE has been the only VOC detected at MW-14 prior to 2011 and since 2011, with the exception of acetone detected in June 2017 (118.0 µg/L). Table 3.1-7 summarizes the statistics for VOCs found at MW-14. Note, the well is only sampled in the fall, with the exception being the spring 2017 monitoring event.

Table 3.1-7 VOC Concentration Statistics for MW-14					
VOC Present	**Number of Times Detected**	**Maximum Concentration (µg/L)**	**Minimum Concentration (µg/L)**	**Average Concentration (µg/L)**	**MDH Compliance Standard (µg/L) and Source**
Acetone	1	118	0	13.1	4000 HRL
PCE	9	26.1	1.9	10.2	4 HBV

The data indicates PCE has been detected during each sampling event. The concentration reported is variable and it has exceeded its compliance standard at six sampling events, October 2011, November 2014, October 2015, June 2017, October 2017 and October 2018. Comparing pre 2011 (only 2010 data) and post 2011 average concentrations for PCE (3.5 and 10.2 µg/L), PCE has increased 193%. The attached Figures 3a and 3b indicate groundwater at MW-14 is moving towards RW-C. Any VOCs detected at this well adds to the contaminant mass at RW-C.

Figure 3.1-7 presents the PCE concentration trend at MW-14 since 2011 relative to its compliance standard. The data indicates that the concentration of PCE is slightly increasing at MW-14.

Figure 3.1-7
MW-14 Time/Concentration of VOCs with
MDH Compliance Standard



Discussion and Conclusions for VOC Results: Shallow Quaternary Aquifer Wells

In summary, for the Shallow Quaternary Aquifer nine monitoring wells are used to collect water quality data. Since 2011, VOCs have been found in all nine of these wells. Relative to the benchmark 2010 response action date for the Site, the sum of average VOC concentrations at the Site have decreased in eight of the nine monitoring wells between 12 and ~100%. Only MW-14 had an overall increase in concentration (193%); contamination at this well point is discussed below. The wells (MW-3 and MW-6) located between/within the Source Area and RW-C decreased between 72 and 89% inferring Site response actions, advection/dispersion and/or natural attenuation have been effective. Monitoring wells located at or near the perimeter of the Site (MW-1, MW-2, MW-4, MW-5, MW-10 and MW-12) all indicate an overall loss of VOCs over time (between 12 and ~100%), regardless of their representing an off-Site contaminant source. Regardless, some VOCs at these perimeter wells are increasing and pose a hindrance to completing response actions underway at the Site.

In the Shallow Quaternary Aquifer only four VOCs are found on more than two occasions: cis and trans DCE, PCE and TCE. Table 3.1-8, summarizes the trends and compliance for these four VOCs in this portion of the aquifer. MW-3 is an exception, where acetone and 2-Butanone (MEK) have been found on more than two occasions, but at concentrations orders of magnitude lower than compliance and thus these VOCs are excluded from the summary table.

As stated in the 2015 AMR, PCE, TCE and 1,1,1,2-Tetrachloroethane (TCA) are considered parent products because they were used on site; cis DCE and trans DCE are daughter, or degradation, products of PCE and TCE; DCA is a daughter product of TCA; and, TCE is also a daughter product of PCE. Since 2011, TCA has not been detected in these shallow monitoring wells and DCA has only been present once in MW-5 and four times in MW-2 at concentrations just above the detection limit and well below its compliance standard. MW-2 is considered an upgradient well relative to the Site Source Area. Therefore, based on their infrequent detection, limited aerial presence at the Site and or concentration relative to compliance standard, TCA and DCA are not considered significant components of contamination at this time in the Shallow Quaternary Aquifer at the Site. The remaining VOCs are PCE, TCE, cis DCE and trans DCE, which are summarized in Table 3.1-8.

Table 3.1-8
VOC Summary Shallow Quaternary Aquifer Wells

Monitoring Well (MW)	cis DCE			trans DCE			PCE			TCE		
	Detected	Trend	Compliance	Detected	Trend	Compliance	Detected	Trend	Compliance	Detected	Trend	Compliance
1	N	-	0/9	N	-	0/9	Y	C	0/9	N	-	0/9
2	Y	C	0/9	N	-	0/9	Y	C	0/9	Y	C	3/9
3	Y	D	1/16	Y	C	0/16	Y	D	13/16	Y	D	14/16
4	N	-	0/9	N	-	0/9	N	-	0/9	Y	C	6/9
5	Y	D	4/9	Y	I	0/9	Y	I	3/9	Y	I	9/9
6	N	-	0/16	N	-	0/16	Y	D	16/16	Y	D	9/16
10	N	-	0/9	N	-	0/9	N	-	0/9	N	-	0/9
12	N	-	0/16	N	-	0/16	Y	D	15/16	Y	C	12/16
14	N	-	0/9	N	-	0/9	Y	I	6/9	N	-	0/9

Notes:
- : No Trend (2 or less detections)
C: Constant Trend (-0.0005 ≤ slope of regression line ≤ 0.0005)
I: Increasing Trend
D: Decreasing Trend
Compliance: Ratio of Times Exceeded / Times Analyzed

All four VOCs, PCE, TCE, cis DCE and trans DCE, were found in just two Site wells since 2011: MW-3, located adjacent to the Source Area, and MW-5, located south of the Source Area along the southern Site boundary. MW-5 is considered an upgradient well relative to the Source Area. As noted in Section 2.1, in October 2016, the static water level at MW-5 was more than 10 feet higher than the water level in MW-3 strongly indicating groundwater flow from the southern Site boundary towards the Source Area and RW-C. At MW-3, VOCs are decreasing in concentration with cis DCE not being detected since 2013 up until 2016 and trans DCE not being detected since 2013. At MW-5, PCE and TCE are increasing in concentration and cis DCE and trans DCE

concentrations are decreasing and increasing, respectively. Since 2013, with the exception of PCE, VOCs are at higher concentrations at MW-5 than at MW-3. For the 2011 to 2018 time period, the average TCE concentration at MW-5 (17.9 µg/L), represents contaminated groundwater likely flowing onto the Site that is impacted similarly to or greater than the groundwater found in the Site Source Area (MW-3 at 16.4 µg/L) and at MW-6 (6.0 µg/L) located immediately adjacent to the Site recovery well. This data implies minimal loading of TCE may be taking place at the Source Area or that the off-site source of this VOC has a greater impact than the on-site source.

Based on the comparative chemistry of these two wells and especially the gradient between the two wells, groundwater and VOCs are moving from MW-5 to MW-3 inferring an additional source of VOCs is moving on to the Site from an off-site location from the south. As noted below, additional wells located along the southern boundary also exhibit VOC impact potentially from an off-site source. Regardless, the VOCs present at MW-5 are drawn into the Site recovery well's zone of groundwater capture by its imposed hydraulic gradient.

For the southern perimeter monitoring wells, there are three wells located near the south Site boundary: MW-2, MW-4 and MW-5. MW-5 is discussed above. All are now considered upgradient of the Source Area based on the flow direction imposed by RW-C:

- MW-2 is located in the southwest portion of the Site and only has cis DCE and TCE present consistently. As an exception, 1,1-Dichloroethane (DCA) has been detected in the last three sampling events, but is reported at concentrations more than two orders of magnitude below its compliance standard. The cis DCE concentration trend is generally constant and below its compliance standard. As noted above, cis DCE is a degradation product of PCE/TCE. PCE is not present at this well; however, TCE was detected in three of the last four sampling events, each time above its compliance standard. Based on gradient the source of the cis DCE (degrading PCE/TCE) would be southwest of this well and off-site. Any cis DCE and TCE present at this location should be drawn towards RW-C and contaminated water at this location will comingle with that from the Source Area; and

- MW-4 is located in the southeast corner of the Site and TCE is the only VOC present. The TCE concentration is generally constant and exceeds its compliance standard when detected. Based on gradient, the source of the TCE, or potentially degraded PCE, would be southeast of this well and off-site. The TCE present should be drawn into the Site recovery well's zone of groundwater capture and contaminated water at this location will comingle with that from the Source Area.

Four wells are located north of the Site boundary; MW-1, MW-10, MW-12 and MW-14. Since 2011:

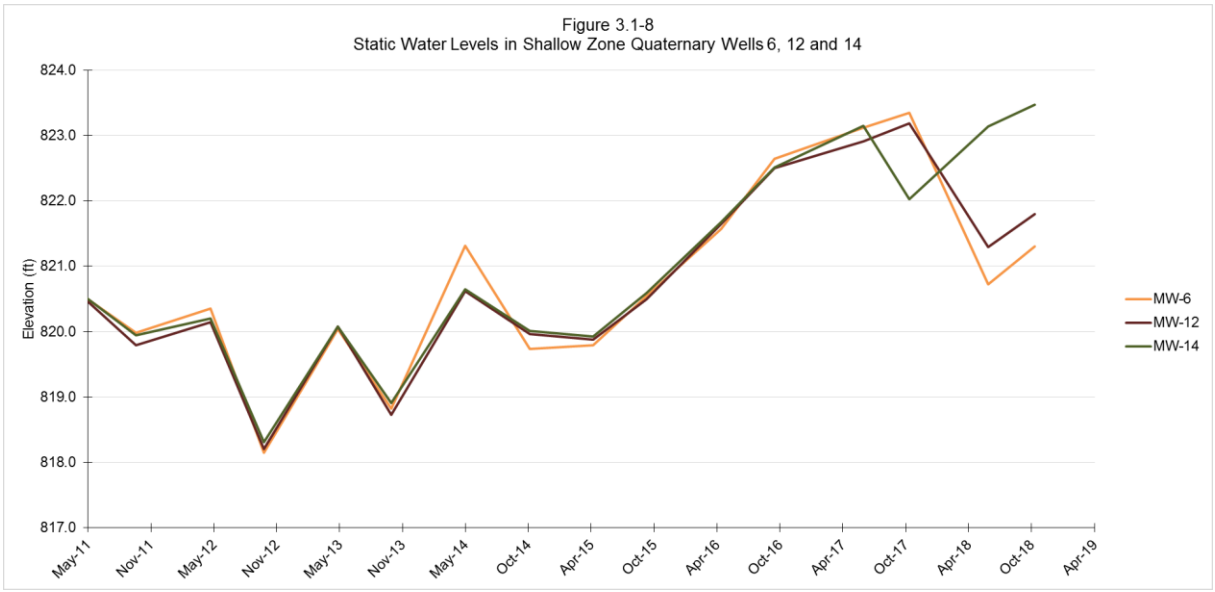
- MW-1 is located northeast of the Source Area and was once upgradient or tangential of the groundwater flow at the Site. Based on the flow direction imposed by RW-C, groundwater at this location now moves towards the Site recovery well. MW-1 did have PCE present in October 2017 and June 2017, but it was not detected in 2018. This contaminated groundwater is captured by RW-C;

- MW-10 is due north of the Source Area and was once considered downgradient/tangential of the groundwater flow at the Site. Based on the flow direction imposed by RW-C, groundwater at this location now moves towards RW-C. VOCs are not generally detected at this well. Acetone and allyl chloride were detected in June 2017 and are considered to represent upgradient contaminant source loading;

- MW-12 is located northwest of the Source Area and considered tangential or downgradient of the groundwater flow at the Site. Based on the flow direction imposed by RW-C, groundwater at this location moves towards RW-C; however, since 2011, and specifically in the last three monitoring events, the groundwater flow in this area has been variable between MW-6, MW-12 and MW-14 (see Figure 3.1-8). MW-12 at times is upgradient of MW-6 and MW-14 and sometimes downgradient. During the majority of these sampling periods at these three wells, the groundwater gradient is close to flat with flow towards RW-C. PCE and TCE are present at MW-12; the PCE concentration is decreasing while the TCE concentration is generally constant. Both PCE and TCE exceed their respective compliance standards when detected at MW-12, with the exception of the June 2018 detection of TCE, which was below its compliance standard.

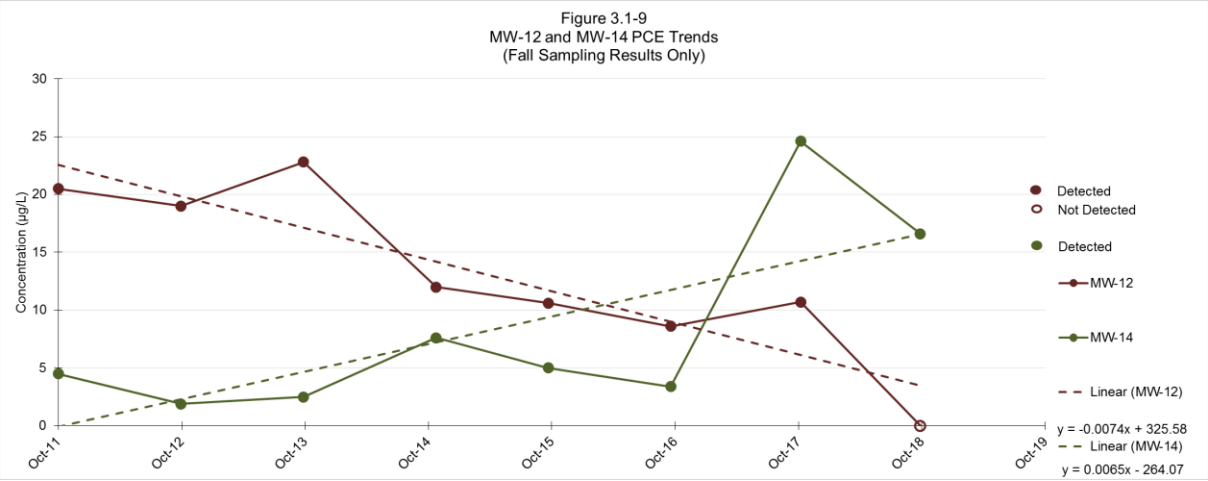
- MW-14 was installed as a performance monitoring well and was considered downgradient of the groundwater flow at the Site. Based on the flow direction imposed by RW-C, groundwater at this location generally moves towards RW-C. PCE is the only VOC present; and its concentration is slightly increasing and has been detected above its standard during six sampling events.

Figure 3.1-8
Static Water Levels in Shallow Zone Quaternary Wells 6, 12 and 14



To evaluate the source of PCE (TCE is not present at MW-14) in this area, the PCE concentration at MW-12 and MW-14 were compared (see Figure 3.1-9). Note the data presented excludes the spring sampling events except for June 2017, due to MW-14 only being sampled in the fall. The resulting correlation coefficient[11] is -0.58, and is considered to be a poor inverse correlation. By observation, the PCE concentration at MW-12 is higher than at MW-14. Further, the trends indicate that as the concentrations decline at MW-12 they are increasing at MW-14.

[11] For this report a coefficient of greater than 0.75 is generally considered good. Statistical correlation calculations were performed when described. Where VOCs are reported below the detection limits, it is assumed the value is at the detection limit.



These data trends are consistent with the potentiometric contours in Figures 3a and 3b which infer that the groundwater monitored in MW-12 is migrating from the southwest portion of the site and points south of the site, and the groundwater monitored in MW-14 is migrating from the northeast portion of the site and points southeast of the site, so that the two wells are not relatable. Both are the result of groundwater movement on-site toward the pumping at RW-C.

Finally, the remaining well within the potential VOC "plume" located between the Source Area and RW-C is MW-6, which is located next to RW-C and represents water quality in the Shallow Quaternary Aquifer near RW-C. PCE and TCE are present in MW-6 and decreasing in concentration. Both PCE and TCE exceed their respective compliance standards when detected. As noted earlier, the overall sum of average VOC concentrations has decreased over time at MW-6.

In summary for the Shallow Quaternary Aquifer wells since 2011, based on the data analysis presented above:

- VOCs present at well MW-3 are representative of the release in the Source Area. The predominant VOCs present at MW-3 are PCE and TCE, and their concentrations are decreasing, but remain elevated above compliance standards. Degradation products of PCE and TCE have been present at MW-3, but these compounds have been absent or sporadically detected in the past seven years since 2011;

- The southern (MW-2, MW-4 and MW-5) and western (MW-12) perimeter wells all have VOCs present that are also present at MW-3. VOC concentrations are generally constant at MW-2 and MW-4, generally constant, decreasing, or increasing at MW-5 and generally constant or decreasing at MW-12. It is believed that the VOC concentrations found at MW-2, MW-4, MW-5 and MW-12 are a result of off-site releases. As groundwater moves from MW-5 towards RW-C, it likely impacts MW-3 and as groundwater moves from MW-4 towards RW-C, it likely impacts MW-6, resulting in comingling with the plume originating at the Site. The TCE concentration at MW-3 has decreased to levels lower than MW-5. TCE is decreasing at MW-3 and increasing at MW-5. TCE from MW-5 may now represent a significant portion of TCE's presence at the Site;

- VOC concentrations are decreasing at MW-6 as the Site Source Area's (MW-3) VOC concentrations are decreasing; and

- No VOCs are consistently present in the northern (MW-10) and eastern (MW-1) perimeter wells with the exception of two detections of PCE in MW-1 during 2017 sampling events, both of which were an order of magnitude below the compliance standard. Any VOCs detected at these wells will move towards RW-C and affect its water quality.

Based on a comparative evaluation of pre 2011 and post 2011 sum of average VOC concentrations, the VOCs found at the Site in the Shallow Quaternary Aquifer have decreased significantly (between 12 and ~100%) in eight of the nine wells. This trend is a positive indicator of improving groundwater quality at the Site in the Shallow Quaternary Aquifer, despite potential off-site source loading. This is likely a result of improved chemical management by Kurt, response actions implemented by Kurt, and/or natural attenuation of the VOCs released from the Source Area.

3.2 DEEP QUATERNARY AQUIFER WELLS

The deep Quaternary Aquifer wells are identified as MW-7, MW-8, MW-9, MW-13, MW-15, Well B and RW- C. See attached Figures 4a and 4b for well locations and a plot of October 2018 and June 2018 static water levels, respectively. Where referenced in this section, the well location relative to its position as up, down or side gradient, is based on area-wide mapping presented in the aforementioned figures and in 2017 Potentiometric Surface data plots in Appendix F where appropriate. However, of note, the majority of these wells are influenced by pumping at RW-C, and gradient relative to the recovery well does not reflect area-wide flow.

MW-7 is located adjacent to the Source Area and is nested with shallow well MW-3. It represents water quality in the Source Area. However, groundwater from locations off-site to the south is drawn on to the Site by RW-C and will impact the water quality at MW-7. As described in the EDR (Section 4.2) and tabulated in the 2014 AMR, MW-7 has been monitored since 1984. Eighteen VOCs were detected at MW-7 prior to 2011. Eight VOCs have been present at MW-7 since 2011: DCA, 1,1-DCE, cis DCE, trans DCE, PCE, tetrahydrofuran, TCE and vinyl chloride. Table 3.2-1 summarizes the statistics for VOCs found at MW-7. Note the data presented excludes the spring sampling events prior to 2015 and the spring 2018 event in which this well was not sampled.

Table 3.2-1
VOC Concentration Statistics for MW-7

VOC Present	Number of Times Detected	Maximum Concentration (µg/L)	Minimum Concentration (µg/L)	Average Concentration (µg/L)	MDH Compliance Standard (µg/L) and Source
DCA	11	6.5	4.5	5.40	80 RAA
1,1-DCE	11	5.4	0.5	2.22	200 HRL
cis DCE	11	90.3	47.8	65.23	6 HBV
trans DCE	9	1.6	0	1.12	40 HRL
PCE	11	88.8	9.1	29.47	4 HBV
Tetrahydrofuran	1	43.0	0	3.91	600 HBV
TCE	10	212	34.8	93.92	0.4 HRL
Vinyl Chloride	10	5.7	1.5	3.03	0.2 HRL

The data indicates DCA and 1,1-DCE have been detected during each sampling event at concentrations well below their respective compliance standard. Cis DCE, PCE, TCE and vinyl chloride have been detected during each sampling event at concentrations that exceed their respective compliance standards. Trans DCE has been detected during nine of the sampling events at concentrations well below its compliance standard. Tetrahydrofuran has been detected once since 2011 below its compliance standard; due to its infrequent detection, it will not be

discussed further for MW-7 at this time.

Comparing pre 2011 and post 2011 average concentrations for these compounds: DCA (4.9 and 5.4 µg/L) has increased 10%; 1,1-DCE (4.2 and 2.2 µg/L) has decreased 47%; sum DCE (378.3 and 60.8 µg/L) has decreased 84%, PCE (1,647.4 and 29.5 µg/L) has decreased 98%; TCE (706.4 and 93.9 µg/L) has decreased 87% and vinyl chloride (7.5 and 3.0 µg/L) decreased 60%. The sum of average VOC concentrations for pre 2011 (18 VOCs) was 2,832.2 µg/L; post 2011 (8 VOCs) is 200.9 µg/L. This is an overall VOC reduction of 93% at MW-7. The attached Figures 4a and 4b indicate groundwater at MW-7 is moving towards RW-C.

As noted above, the concentrations of DCA, 1,1-DCE and trans DCE have been well below their respective compliance standards; therefore, their trends have been plotted in Figure 3.2-1a without comparison to their standards. The data indicates that the concentrations of DCA and 1,1-DCE are decreasing and the concentration of trans DCE is generally constant at MW-7.

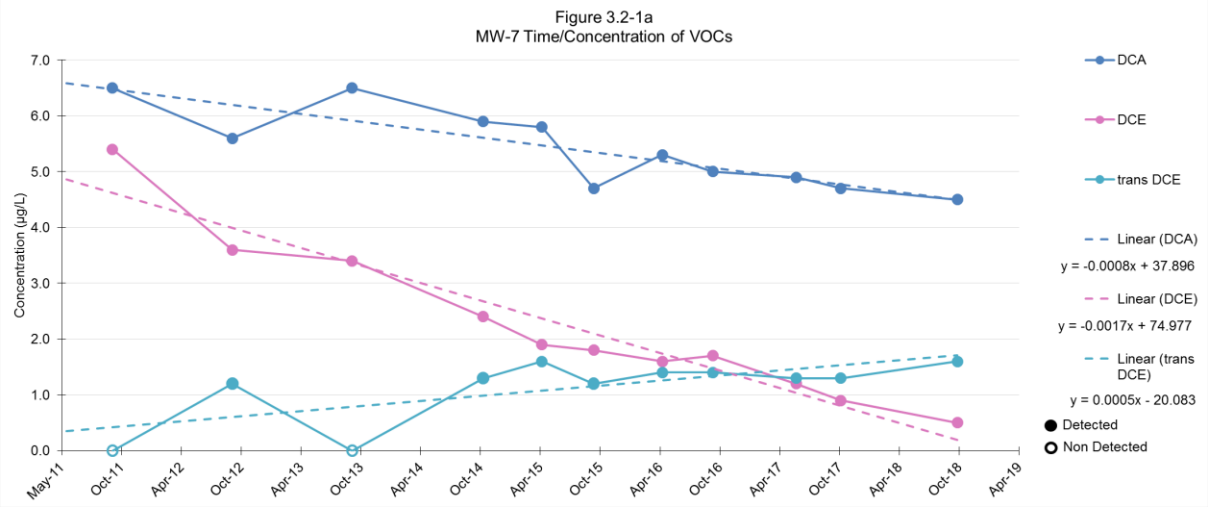


Figure 3.2-1b presents the cis DCE and TCE concentration trend since 2011 relative to their compliance standards. The data indicates that the concentration of both VOCs is decreasing, but are well above their compliance standards at MW-7.

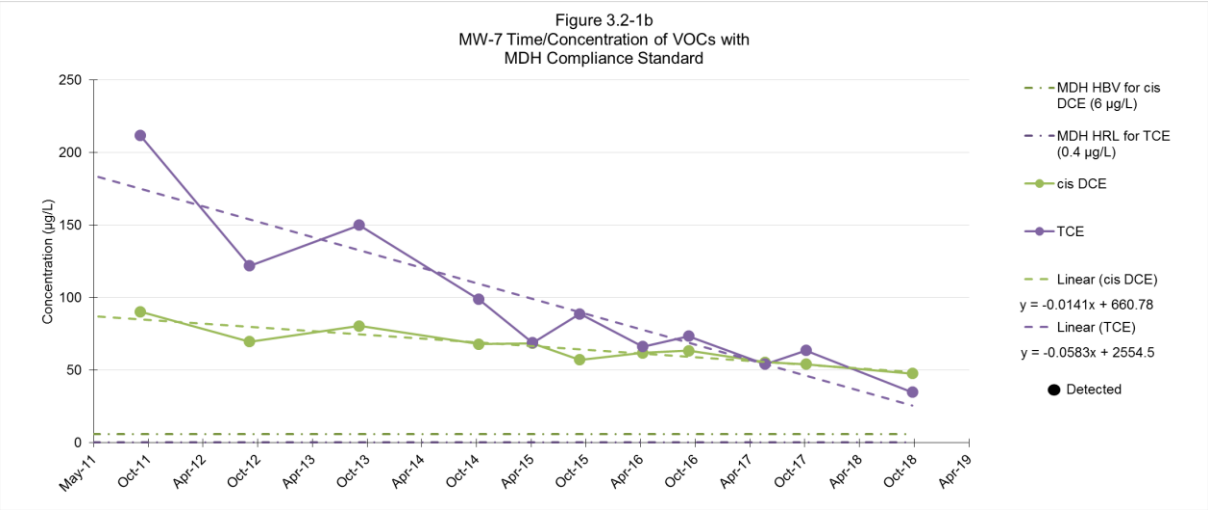
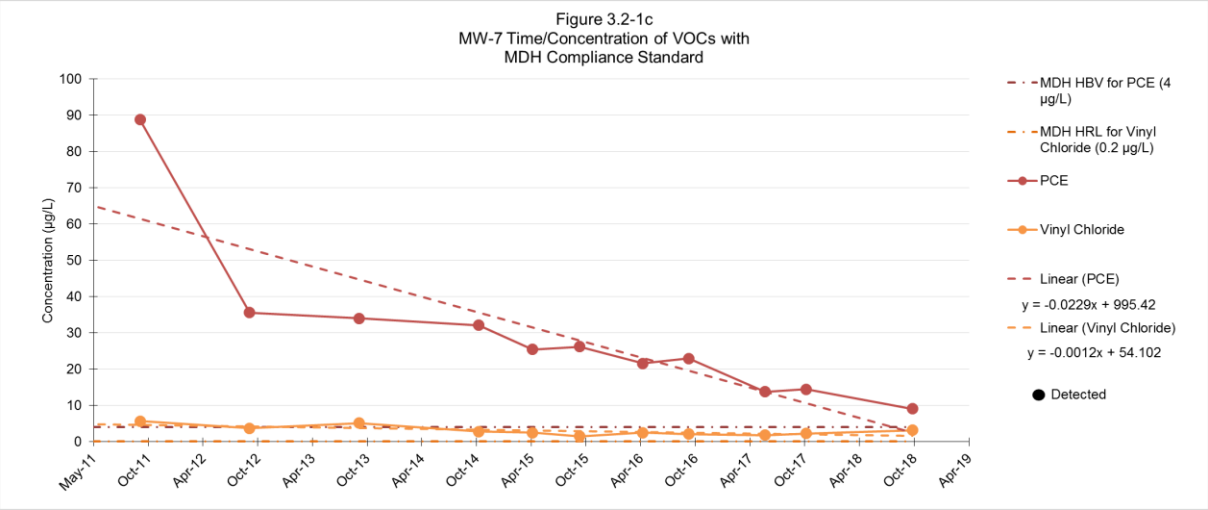


Figure 3.2-1c presents the PCE and vinyl chloride concentration trend since 2011 relative to their compliance standards. The data indicates that the concentrations of both VOCs are decreasing, but are above their compliance standards at MW-7.



MW-8 is located in the southwest corner of the Site, nested with shallow well MW-2. It was considered downgradient/tangential of the groundwater flow at the Site. Based on the flow direction imposed by RW-C, groundwater at this location now moves towards RW-C and will influence water quality beneath the Source Area. As described in the EDR (Section 4.2) and tabulated in the 2014 AMR, MW-8 has been monitored since 1985. Fourteen VOCs were detected at MW-8 prior to 2011. PCE had been the only detected VOC at MW-8 since 2011 prior to the fall 2017 sampling event detections of TCE. Toluene was detected in the spring 2018 sampling event at a concentration three orders of magnitude below its compliance standard. Toluene is not discussed further for MW-2. Table 3.2-2 summarizes the statistics for PCE at MW-8.

Table 3.2-2
VOC Concentration Statistics for MW-8

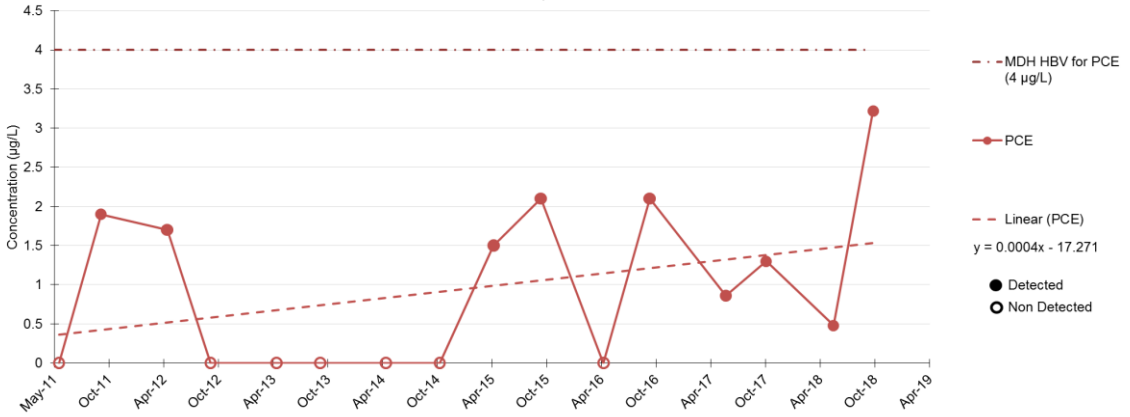
VOC Present	Number of Times Detected	Maximum Concentration (µg/L)	Minimum Concentration (µg/L)	Average Concentration (µg/L)	MDH Compliance Standard (µg/L) and Source
PCE	9	3.22	0	1.68	4 HBV
TCE	1	0.2	0	0.01	0.4 HRL

The data indicates PCE has been detected sporadically at this well since 2011 and all concentrations reported are below the compliance standard. Comparing pre 2011 and post 2011 average concentrations for PCE (6.8 and 1.68 µg/L), PCE has decreased 75% at MW-8. For the sum of average VOC concentrations, pre 2011 (14 VOCs) was 365.5 µg/L; post 2011 (2 VOCs) is 1.7 µg/L. This is an overall VOC reduction of ~100% at MW-8.

Figure 3.2-2 presents the PCE concentration trend since 2011 relative to its compliance standard. It shows the concentration of PCE is generally constant, when detected, and below the compliance standard since 2011. The attached Figures 4a and 4b indicate groundwater at MW-8 is now moving towards RW-C. A source of VOCs is suspect off-site south/southeast of MW-8, and is

likely responsible for the VOCs detected at this well. This contaminated groundwater comingles with the Source Area plume monitored at MW-7 and will interfere with response actions completed at the Site to reduce VOC contamination.

Figure 3.2-2
MW-8 Time/Concentration of VOCs with
MDH Compliance Standard



MW-9 is located south of the Site building, along the southern Site boundary and is nested with shallow well MW-5. Based on regional flow, it was once tangential of the groundwater flow at the Site. Based on the flow direction imposed by RW-C, groundwater at this location now moves towards the Source Area and RW-C, and it is considered an upgradient well. As described in the EDR (Section 4.2) and tabulated in the 2014 AMR, it has been monitored since 1985. Eight VOCs were detected at this well prior to 2011. Four VOCs are present at MW-9 since 2011: DCA, cis DCE, trans DCE, and TCE. Table 3.2-3 summarizes the statistics for VOCs found at MW-9. Note MW-9 was not sampled in the spring except for the June 2017 sampling event.

Table 3.2-3
VOC Concentration Statistics for MW-9

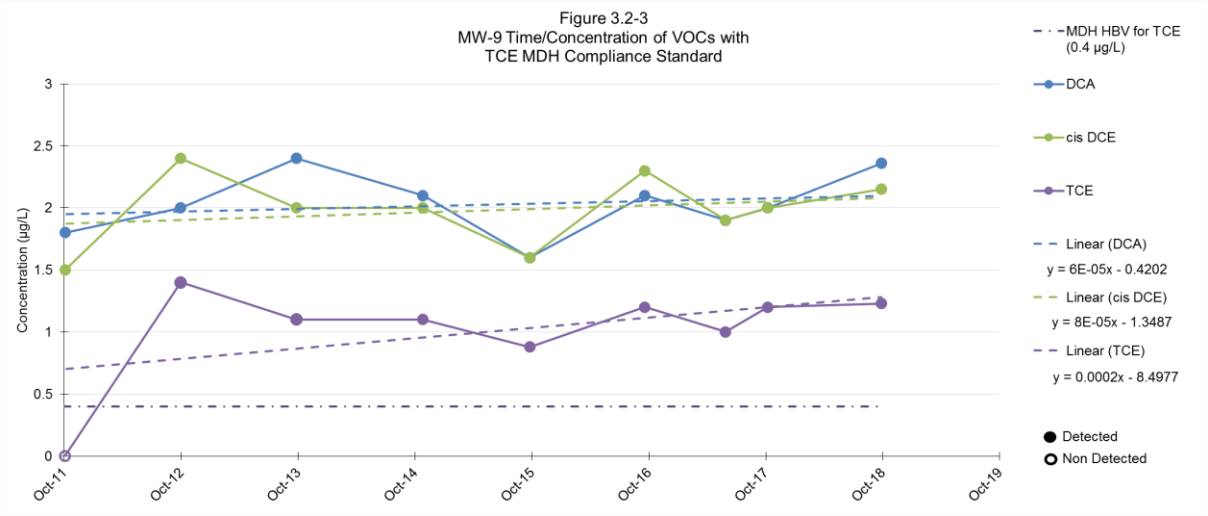
VOC Present	Number of Times Detected	Maximum Concentration (µg/L)	Minimum Concentration (µg/L)	Average Concentration (µg/L)	MDH Compliance Standard (µg/L) and Source
DCA	9	2.4	1.6	2.03	80 RAA
cis DCE	9	2.4	1.5	1.98	6 HBV
trans DCE	2	0.45	0	0.04	40 HRL
TCE	8	1.4	0	1.01	0.4 HRL

The data indicates that three VOCs have been detected for the majority of the monitoring events. Of these three, the DCA and cis DCE concentrations are reported below their respective compliance standards, but the TCE concentration exceeds its standard. Trans DCE has only been detected twice at a level two orders of magnitude below its standard. These concentrations are within the same order of magnitude as the standard, however, due to infrequent detection for trans DCE, no further discussion of this VOC at MW-9 will occur at this time.

Comparing pre 2011 and post 2011 average concentrations for the three consistently detected VOCs: DCA (1.7 and 2.03 µg/L) has increased 20%; cis DCE (1.4 and 1.98 µg/L) has increased 39% and TCE (1.5 and 1.01 µg/L) has decreased 32%. The sum of average VOC concentrations for pre 2011 (8 VOCs) was 43.2 µg/L; post 2011 (5 VOCs) is 5.72 µg/L. This is an overall VOC

reduction of 87% at MW-9.

Figure 3.2-3 presents the DCA, cis DCE and TCE concentration trends since 2011; however, only the compliance standard for TCE is shown because DCA and cis DCE concentrations are reported well below their standard. The graph demonstrates the VOC concentrations are generally constant and the TCE concentration is generally less than 1 µg/L over its respective compliance standard. As noted in Section 3.1, a source of VOCs is suspect south/southeast and off-site of MW-5, which is nested with MW-9. This off-site source is likely responsible for the VOCs detected in MW-9. The attached Figures 4a and 4b indicate groundwater at MW-9 is now moving towards RW-C. This contaminated groundwater comingles with the Source Area plume monitored at MW-7/MW-B and will interfere with response actions completed at the Site to reduce VOC contamination.



MW-13 is located north of the Site on the north adjacent property, nested with shallow well MW-14. It was installed as a downgradient performance monitoring well. The groundwater at this well now moves towards RW-C and it is considered an upgradient well. As described in the EDR (Section 4.2) and tabulated in the 2014 AMR, MW-13 has been monitored since 2010. No VOCs were detected in this well prior to 2011. MW-13 was sampled only during fall events (except for spring 2017) and a total of three VOCs have been detected at MW-13 since 2011: acetone (November 2014 and October 2017), PCE (October 2013), and TCE (October 2015). Therefore, no statistical and trend analysis are completed on MW-13.

Of the three VOCs found in MW-13, only the TCE concentration exceeds its respective compliance standard, but is the same order of magnitude. The attached Figures 4a and 4b indicate groundwater at MW-13 is now moving towards RW-C. As noted in Section 3.1, in the Shallow Quaternary Aquifer, the migration of VOCs from the area of MW-12 towards MW-14 is considered likely. As MW-14 is nested with MW-13, this flow path is also responsible for the VOCs periodically detected in MW-13. It is unlikely that VOCs are moving past RW-C from the Source Area to MW-13 (static water level at MW-13 is approximately 9 ft. higher than RW-C in October 2018). This contaminated groundwater comingles with the Source Area plume being captured at RW-C and will interfere with response actions completed at the Site to reduce VOC contamination.

MW-15 is located at the southeast corner of the Site (adjacent to MW-4). It was installed to monitor upgradient conditions at the Site. Based on flow (attached Figures 4a and 4b), it is considered a southeast upgradient perimeter well, It was finished in the Deep Quaternary Aquifer,

at a depth of 80 feet. After being completed in April 2017, it was first sampled in the spring of 2017, at which time cis DCE was detected at an order of magnitude below its compliance standard. No VOCs were detected in the October 2018 sampling event. Due to this sparse data set, the data was not graphed. The contaminated groundwater found at this well comingles with the Source Area plume being monitored at MW-7/MW-B and captured at RW-C. Contaminants moving on to the Site at this location will interfere with response actions completed at the Site to reduce VOC contamination.

Well B is located west of the Source Area and considered a side-gradient/downgradient monitoring well. Its water quality is representative of the Source Area plume. As described in the EDR Section (4.2) and tabulated in the 2014 AMR, it has been monitored since 1987. Twelve VOCs were detected at this well prior to 2011. Six VOCs are consistently present at Well B since 2011: DCA, , cis DCE, trans DCE, PCE, TCE and vinyl chloride. DCA was detected in the spring 2017 sampling event at a concentration below its compliance standard. 1-1- DCE was detected in the fall 2017 sampling event at a concentration three orders of magnitude below its compliance standard. Due to infrequent detection, these two VOCs are not discussed further for Well-B. Table 3.2-4 summarizes the statistics for the eight VOCs found at Well B. Note Well B generally was not sampled in the spring prior to the most recent sampling event.

Table 3.2-4
VOC Concentration Statistics for Well B

VOC Present	Number of Times Detected	Maximum Concentration (µg/L)	Minimum Concentration (µg/L)	Average Concentration (µg/L)	MDH Compliance Standard (µg/L) and Source
DCA	8	4.4	0	2.97	80 RAA
1,2-Dichloroethane	1	0.19	0	0.02	1 HRL
1,1-DCE	1	0.18	0	0.02	200 HRL
cis DCE	9	130	10.4	86.87	6 HBV
trans DCE	8	5.6	0	2.51	40 HRL
PCE	3	3.0	0	0.59	4 HBV
TCE	8	2.2	0	0.86	0.4 HRL
Vinyl chloride	8	5.4	0	2.72	0.2 HRL

The data indicates that all but PCE, 1,1-DCE, and 1,2-Dichloroethane have been detected for the majority of the monitoring events. The concentrations of DCA, trans DCE and PCE are below their respective compliance standard. PCE had not been detected since October 2012 until it was detected in the spring 2017 sampling event at a concentration well below its compliance standard. The remaining three VOCs (cis DCE, TCE and vinyl chloride) all exceed their compliance standard when detected. Comparing pre 2011 and post 2011 average concentrations for the six VOCs: DCA (3.3 and 2.97 µg/L) has decreased 10%; sum DCE (174.8 and 89.37 µg/L) has decreased 49%; PCE (4,251.2 and 0.59 µg/L) has decreased ~100%; TCE (251.1 and 0.86 µg/L) has decreased ~100%; and vinyl chloride (2.5 and 2.72 µg/L) has increased 9%. For the sum of average VOC concentrations, pre 2011 (13 VOCs) was 4,958.9 µg/L; post 2011 (8 VOCs) is 96.5 µg/L. This is an overall VOC reduction of 98% at Well B.

As noted above, the concentrations of DCA and trans DCE have been well below their respective compliance standards; therefore, their trends have been plotted in Figure 3.2-4a without comparison to their standards. The trend for PCE concentrations is included with its compliance standard. The data indicates that the concentrations of DCA and trans DCE are generally constant and below their respective compliance standards at Well B. The concentrations of PCE are decreasing and below its compliance standard.

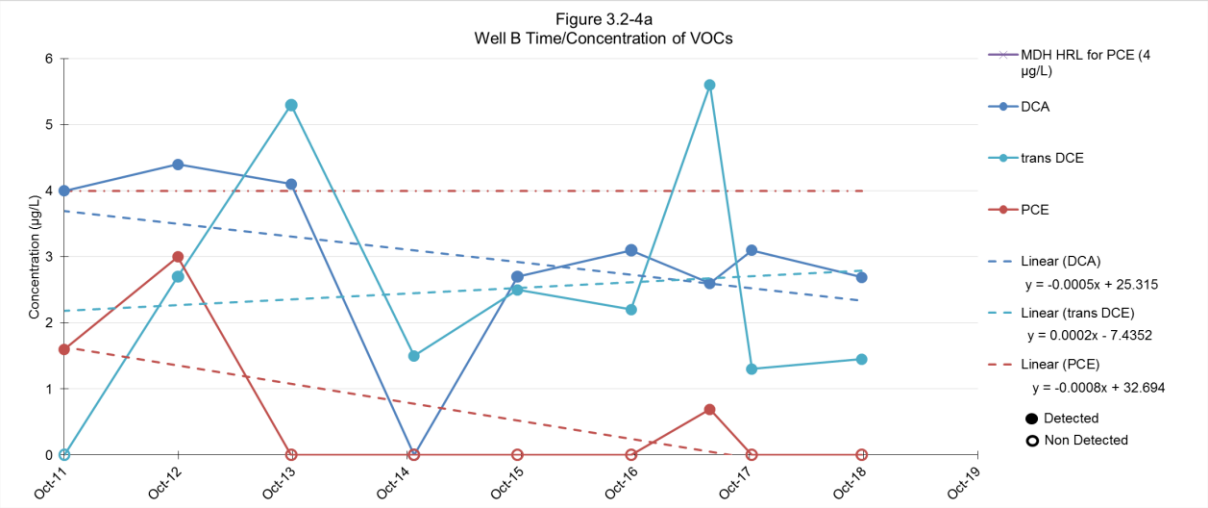


Figure 3.2-4b presents the TCE and vinyl chloride concentration trend and Figure 3.2-4c presents the cis DCE concentration trend since 2011 relative to their compliance standards. Figure 3.2-4b illustrates that the TCE concentration is generally constant, but is remaining above its compliance standard. The vinyl chloride concentration has been increasing over time and is exceeding its compliance standard.

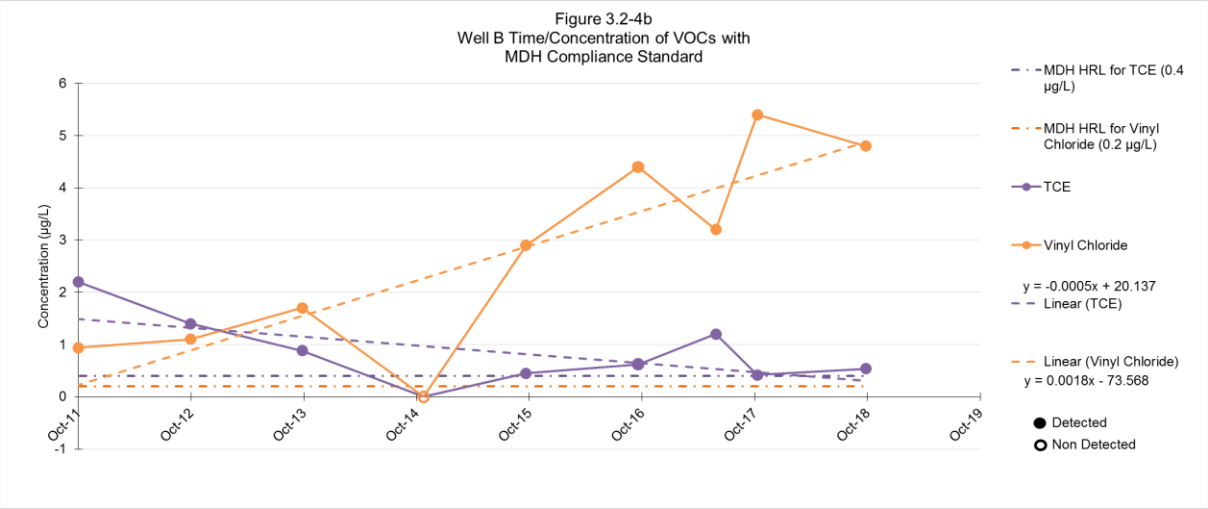
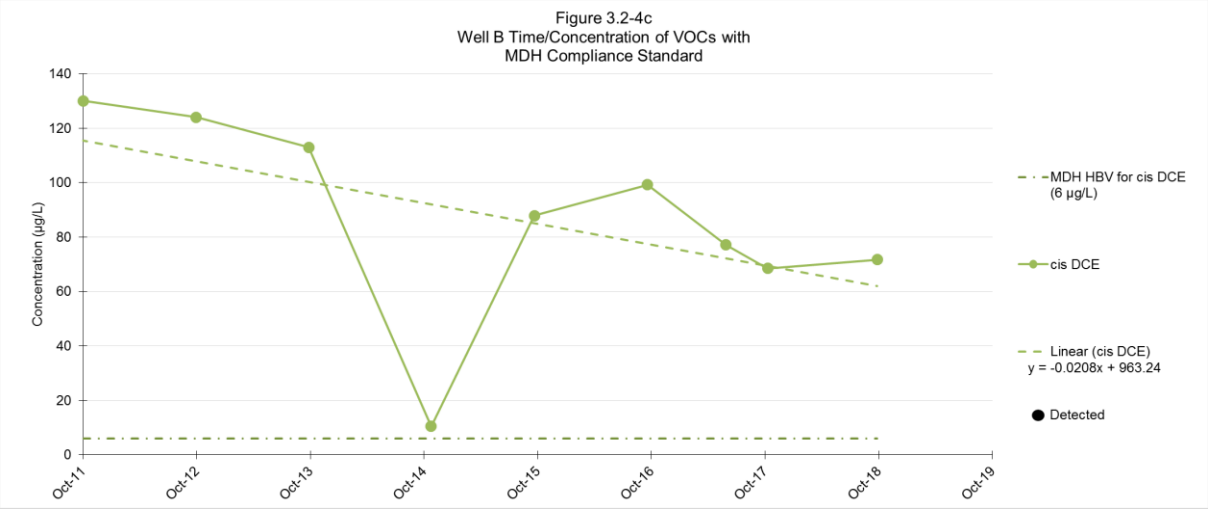


Figure 3.2-4c shows the cis DCE concentration is decreasing and remaining above its compliance standard. Well B was impacted directly from discharge at the Source Area by contaminant dispersion from the Source Area, and/or through induced flow from pumping of Site production wells and its limited use historically as a recovery well. Well B ceased operation as a Site recovery well in July 1995 due to poor operation. The attached Figures 4a and 4b indicate groundwater at Well B is now moving towards RW-C. The water quality at this well also represents contaminants moving on to the Site from the south under the influence of RW-C that comingles with the plume from the Source Area.



RW-C is finished in the Deep Quaternary Aquifer and is located on the north side of the Site building. The EDR and prior AMRs conclude that RW-C is effectively capturing groundwater from both the Shallow and Deep Quaternary Aquifer and it induces flow from off-Site from all directions. Attached Figures 3a, 3b, 4a, and 4b plot the effective radius of this groundwater capture system. As described in the EDR (Section 4.2) and tabulated in the 2014 AMR, it has been monitored since 1994. Fourteen VOCs were detected at RW-C prior to 2011. Seven VOCs are present at RW-C since 2011: chloroform, cis DCE, Methylene Chloride, PCE, 1,2,3-Trichlorobenzene and TCE. Table 3.2-5 summarizes the statistics for the six VOCs found at RW-C since 2011.

Table 3.2-5
VOC Concentration Statistics for RW-C

VOC Present	Number of Times Detected	Maximum Concentration (µg/L)	Minimum Concentration (µg/L)	Average Concentration (µg/L)	MDH Compliance Standard (µg/L) and Source
Chloroform	1	4.7	0	0.34	80 RAA
cis DCE	3	3.0	0	0.36	6 HBV
PCE	14	3,820	262	1,094	4 HBV
1,2,3-Trichlorobenzene	1	5.0	0	0.36	NCS
TCE	8	21.6	0	4.7	0.4 HRL
Methylene Chloride	1	2.2	0	0.1	5 HRL_{MCL}

Chloroform, Methylene Chloride and 1,2,3-Trichlorobenzene were reported on one occasion and cis DCE was reported on two occasions at concentrations well below their compliance standards; 1,2,3-Trichlorobenzene does not have a compliance standard. Because of their limited presence and concentrations below their relative standards, chloroform, cis DCE, and 1,2,3-Trichlorobenzene are not evaluated in the RW-C statistical and trend analysis below. PCE is detected at each sampling event well above its compliance standard. TCE has been detected since 2013, and when detected, it is above its compliance standard. Comparing pre 2011 and post 2011 average concentrations for these two VOCs: PCE (2,103.5 and 1,034.6 µg/L) has decreased 51%; and TCE (11.1 and 4.8 µg/L) has decreased 57%. For the sum of average VOC concentrations, pre 2011 (14 VOCs) was 2,331.4 µg/L; post 2011 (6 VOCs) is 1,040.5 µg/L. This is an overall VOC reduction of 55% at RW-C.

Figure 3.2-5a provides the PCE concentration trend since 2011 relative to its compliance standard.

The PCE concentration is decreasing, but is above its respective compliance standard at RW-C.

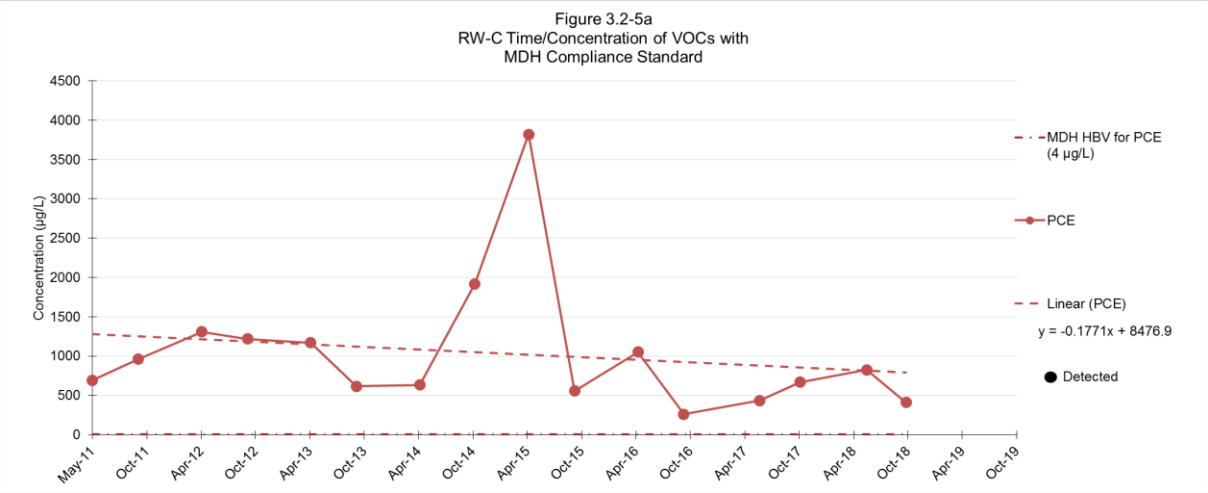
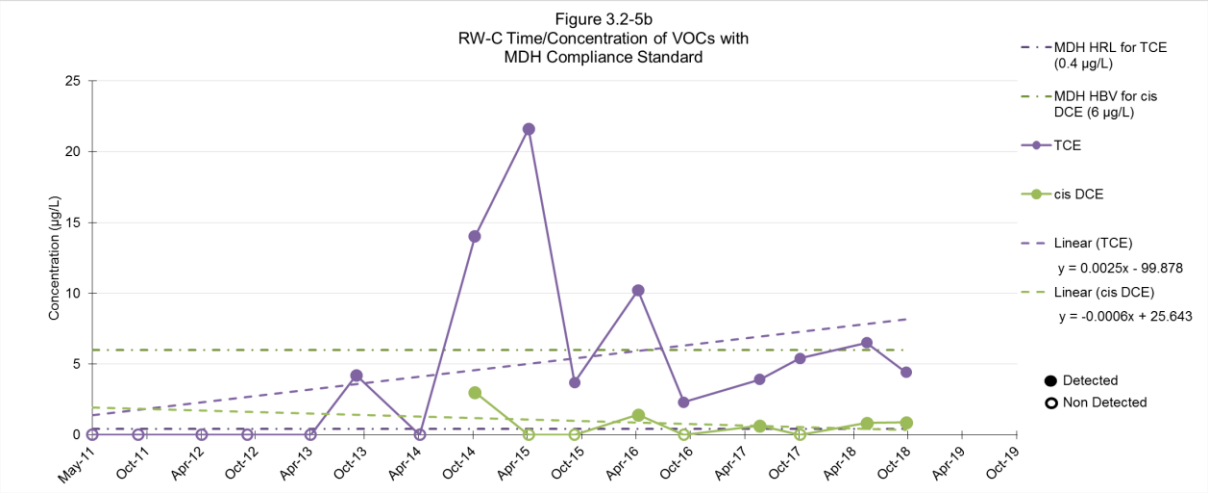


Figure 3.2-5b provides the TCE and cis DCE concentration trends since 2011 relative to their compliance standards. The TCE concentration is increasing and is above its respective compliance standard. The cis DCE concentration is decreasing and is below its respective compliance standard.



As has been noted in both the EDR and previous AMR's, it is Landmark's opinion that RW-C is capturing the contaminants in the vicinity of MW-3, MW-6, MW-7 and Well B, which are located in the general vicinity of the release from the Source Area. RW-C is also drawing in contaminated groundwater from off-site as detected at MWs-2/8, MW-4/15, MWs-5/9 and MW-12 that is likely indicative of contaminated groundwater moving on to the Site. All data indicates that VOCs are not migrating past RW-C in the Deep Quaternary Aquifer.

Discussion and Conclusions for VOC Results: Deep Quaternary Aquifer Wells

In the Deep Quaternary Aquifer, seven VOCs are found on more than two occasions: DCA, 1,1-DCE, cis and trans DCE, PCE, TCE and vinyl chloride. Table 3.2-6, summarizes the trends and

compliance for these VOCs in the Deep Quaternary Aquifer.

Table 3.2-6
VOC Summary Deep Quaternary Aquifer Wells

Monitoring Well (MW)	DCA			DCE			cis DCE			trans DCE			PCE			TCE			Vinyl Chloride		
	Detected	Trend	Compliance	Detected	Trend	Compliance	Detected	Trend	Compliance	Detected	Trend	Compliance	Detected	Trend	Compliance	Detected	Trend	Compliance	Detected	Trend	Compliance
7	Y	D	0/11	Y	D	0/11	Y	D	11/11	Y	C	0/11	Y	D	11/11	Y	D	11/11	Y	D	11/11
8	N	-	0/16	N	-	0/16	N	-	0/16	N	-	0/16	Y	C	0/16	Y	-	0/16	N	-	0/16
9	Y	C	0/9	N	-	0/9	Y	C	0/9	Y	-	0/9	N	-	0/9	Y	C	8/9	N	-	0/9
13	N	-	0/10	N	-	0/10	N	-	0/10	N	-	0/10	Y	-	0/10	Y	-	1/10	N	-	0/10
15	N	-	0/4	N	-	0/4	Y	-	0/4	N	-	0/4	N	-	0/4	N	-	0/4	N	-	0/4
Well B	Y	C	0/9	Y	-	0/9	Y	D	9/9	Y	C	0/9	Y	D	0/9	Y	C	8/9	Y	I	8/9
RW-C	N	-	0/16	N	-	0/16	Y	C	0/16	N	-	0/16	Y	D	16/16	Y	I	10/16	N	-	0/16

Notes:

- : No Trend (2 or less detections)

C: Constant Trend (slope of regression line ≤ 0.0005)

I: Increasing Trend

D: Decreasing Trend

Compliance: Ratio of Times Exceeded / Times Analyzed

As noted in Section 3.1 above, the VOCs PCE, TCE and TCA were used at the Site and are considered parent products. As noted also in Section 3.1, DCA, cis and trans DCE and TCE are considered daughter, or degradation, products of these parents. 1,1-DCE and vinyl chloride are also present in these deeper wells and are considered daughter products of PCE and TCE, as described in the 2015 EDR.

Relative to these seven VOCs:

- DCA has been detected in three of the deep monitoring wells (MW-7, MW-9 and Well B). MW-7 and Well B are located near the Source Area. MW-9 is located at the southern border of the Site and is considered an upgradient well relative to the Source Area. Regardless of the well location, DCA is not found on the Site at a level that exceeds its compliance limit. The DCA concentration is decreasing in MW-7 and is generally constant in MW-9 and Well B. All three wells have similar order of magnitude concentrations of this VOC. DCA concentrations at MW-9 move towards MW-7 and Well B and add to the contaminant mass at these locations;

- 1,1-DCE has been present only in MW-7 and Well-B at a concentration well below its compliance standard and the concentration is decreasing;

- cis DCE is found in the two wells near the Source Area (MW-7 and Well B), in RW-C located on the north side of the Site and in MW-9 located at the southern border of the Site, which is considered an upgradient well relative to the Source Area. The cis DCE concentration is decreasing in MW-7 and Well B, but its concentration exceeds the

compliance standard. When sporadically detected at RW-C, cis DCE is detected below its compliance standard. At MW-9, concentrations are generally constant and below the standard. The cis DCE concentration at MW-9 moves toward the Source Area wells and RW-C and add to the contaminant mass at these locations;

- trans DCE is present at the Source Area wells MW-7 and Well B and at the upgradient well MW-9. The trans DCE concentrations are decreasing and below the compliance standard at both Source Area wells. The trans DCE concentrations at MW-9 move towards the Source Area wells and RW-C and add to the contaminant mass at these locations.

- PCE is found in five of the seven wells finished in the Deep Quaternary Aquifer. PCE has been absent in MW-9, an upgradient well located along the southern border of the Site and in MW-15, an upgradient perimeter well in the southeast corner of the Site. However, PCE is present in the upgradient well MW-8 located along the southwest corner of the Site. At MW-8, PCE is detected sporadically and the concentration is generally constant and below its compliance standard. Based on the flow direction shown on the attached Figures 4a and 4b, the source of PCE at MW-8 is expected to be south to southeast of the Site. The PCE concentration at MW-8 moves towards the Source Area wells and RW-C and adds to the contaminant mass at these locations;

  PCE was found once (October 2013) at MW-13, located to the north of RW-C, at a concentration below the compliance standard. It is believed that the source of the PCE at MW-13 is coming from an off-site source. The PCE concentration at MW-13 moves towards RW-C and adds to the contaminant mass at this location;

  At the two Source Area wells (MW-7 and Well B), the PCE concentrations are decreasing, with PCE not being detected at Well B between October 2012 and October 2017. PCE is detected above the compliance standard at MW-7, while at Well B, it does not exceed the compliance standard when detected. At RW-C, the PCE concentration is decreasing but exceeds the compliance standard. It is expected that the loss of PCE at the Source Area and persistence at RW-C represents both migration downgradient from the source to the capture system and degradation within the Source Area plume. Therefore, the data indicate that water quality is improving in the Source Area and that RW-C is capturing the PCE that has moved from the Source Area and from off-site areas;

- TCE is found in six of the seven wells finished in this portion of the aquifer. TCE is not found in MW-15. TCE has been largely absent in MW-8, an upgradient well located along the southwest corner of the Site, but was detected in the fall 2017 sampling event. TCE is present in the upgradient well MW-9 located along the southern property line of the Site. At MW-9, the TCE concentration is generally constant and has exceeded its compliance standard. Based on the flow direction shown on the attached Figures 4a and 4b, the source of the TCE at MW-8 and MW-9 is expected to be south/southeast of the Site. The concentration at these two wells move towards the Source Area wells and RW-C and adds to the contaminant mass at these locations.

  TCE was found once (October 2015) at MW-13, located to the north of RW-C, at a concentration above the compliance standard. It is believed that the source of the TCE at this well may be coming from an off-site source and it adds to the mass found at RW-C.

  At the two Source Area wells (MW-7 and Well B), the TCE levels are decreasing to remaining generally constant, respectively, with TCE being detected at concentrations

above the compliance standard. The concentration at these two wells reflects both Source Area loading and loading from off-Site sources to the south.

At RW-C, the TCE concentrations are increasing and exceed the compliance standard when detected. The loss of TCE at the Source Area and gain at the recovery well represent migration downgradient from the Source Area to the capture system and degradation of the PCE mass within the Source Area plume. The TCE mass gain also may reflect off-Site loading. The data indicates that water quality is improving in the Source Area and that RW-C is capturing the TCE that has moved from the Source Area, as well as from off-site areas; and

- Vinyl chloride is only found in the two Source Area wells (MW-7 and Well B) finished in the Deep Quaternary Aquifer. The vinyl chloride concentrations are decreasing at MW-7 and increasing at Well B. The detected concentrations at both wells are consistently over the compliance standard. This compound is not detected at RW-C. The presence of vinyl chloride in these wells indicates degradation from parent products that are associated with both the Source Area and from contaminants moving on to the Site from the south.

In general, the gain of TCE and PCE at RW-C and the loss of these compounds in the Source Area, coupled with the presence of daughter products in the Source Area, all infer that the parent product's (PCE and TCE) concentration is being reduced by contaminants moving/dispersing down gradient and by their reductive dechlorination to daughter products.

Based on a comparative evaluation of pre 2011 and post 2011 sum of average VOC concentrations, the VOCs found at the Site in the Deep Quaternary Aquifer have decreased significantly (between 55 and ~100%) in five of the seven wells. (MW-13 and MW-15 have no pre 2011 data to compare to). This trend is a positive indicator of improving groundwater quality at the Site in the Deep Quaternary Aquifer, regardless of off-Site loading. This is likely a result of improved chemical management by Kurt, response actions implemented by Kurt, and/or natural attenuation of the VOCs released from the Source Area.

3.3 OPDC AQUIFER WELLS

The OPDC Aquifer wells are identified as the DPW, PC-1 and PC-2. See attached Figures 5a and 5b for well locations and a plot of the October 2018 and June 2018 static water levels, respectively. 2017 Potentiometric Surface data plots are included in Appendix F in order to demonstrate regional flow within this aquifer.

The DPW (now used as a deep monitoring well) is located west to northwest of the Source Area and is hydrogeologically downgradient of the Source Area. It represents Source Area water quality in this aquifer. Contaminants present in this well are believed to have been drawn down from the Source Area by pumping at this well.

As described in the EDR (Section 4.2) and tabulated in the 2014 AMR, it has been monitored since 1982. Six VOCs were detected at this well prior to 2011. Three VOCs have been present in DPW since 2011: cis DCE, PCE and TCE. Table 3.3-1 summarizes the five-year period statistics for VOCs found at this well.

Table 3.3-1 VOC Concentration Statistics for DPW					
VOC Present	**Number of Times Detected**	**Maximum Concentration (µg/L)**	**Minimum Concentration (µg/L)**	**Average Concentration (µg/L)**	**MDH Compliance Standard (µg/L) and Source**
cis DCE	16	137	4.7	91.01	6 HBV
PCE	10	26.7	0	3.40	4 HBV
TCE	15	44.5	0	15.05	0.4 HRL

The data indicates all three VOCs have been detected during the majority of the sampling events; however, PCE was not detected at DPW between May 2015 and October 2017. Comparing pre 2011 and post 2011 average concentrations for these VOCs: cis DCE (47.1 and 91.01) has increased 93%; PCE (76.6 and 3.40 µg/L) has decreased 96%; and TCE (16.9 and 15.05 µg/L) has decreased 11%. For the sum of average VOC concentrations, pre 2011 (6 VOCs) was 153.8 µg/L; post 2011 (3 VOCs) is 109.45 µg/L. This is an overall VOC reduction of 29% at DPW. The attached Figures 5a and 5b and Appendix F OPDC data plots indicate groundwater at the DPW is moving north/northwest.

Figure 3.3-1a presents the cis DCE concentration trend since 2011 relative to its compliance standard. The data indicates that since 2011 the cis DCE concentration is decreasing, but has been consistently above its compliance standard. In both 2017 sampling events and the spring 2018 sampling event, the cis DCE concentration was below the compliance standard.

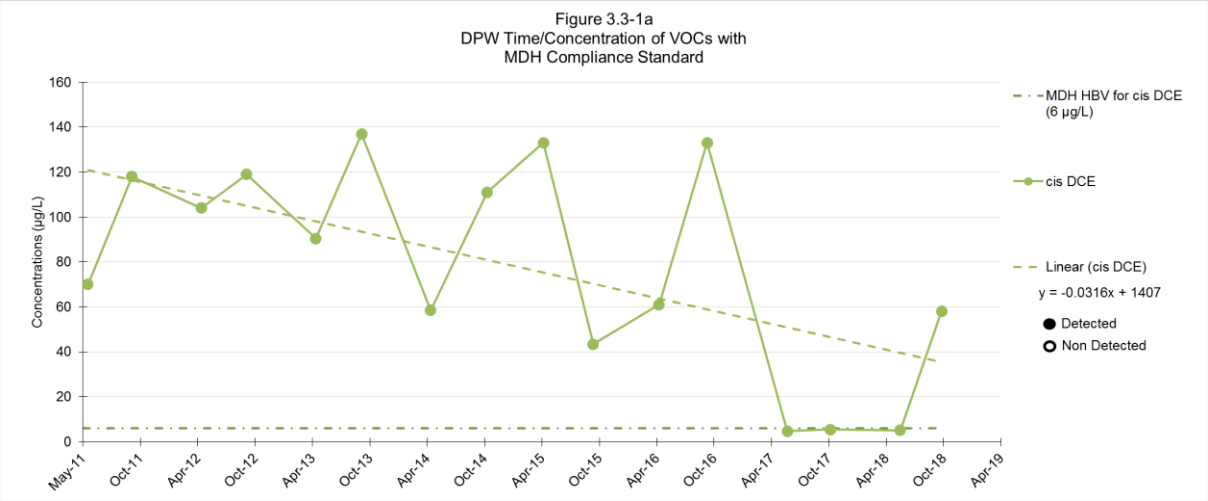
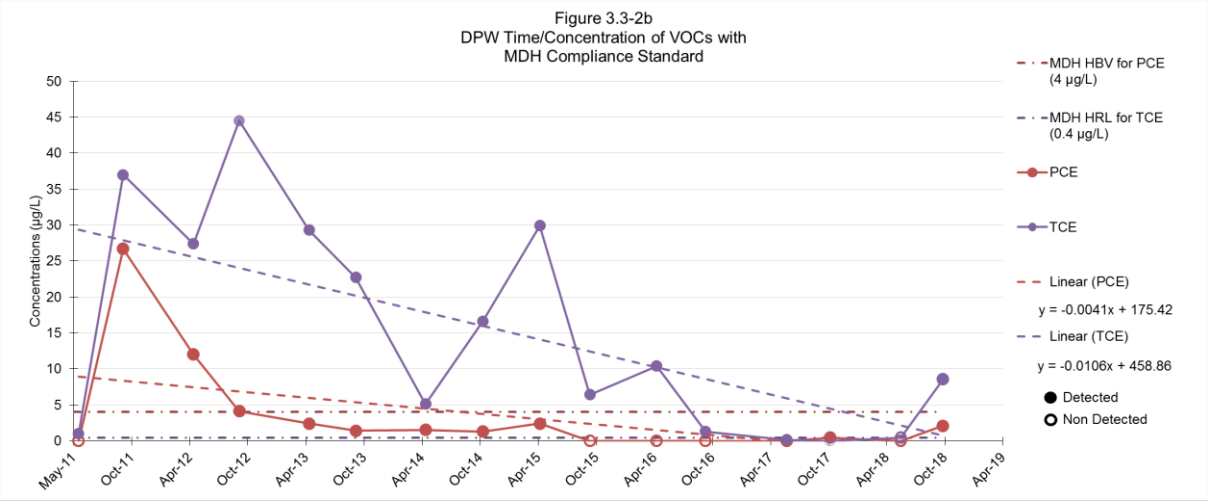


Figure 3.3-1b presents the PCE and TCE concentration trend since 2011 relative to their compliance standards. The data indicates that since 2011 the concentration of both PCE and TCE are decreasing. The PCE concentration has been below its compliance standard since 2013 and was not detected between May 2015 and June 2017. The TCE concentration is consistently above its compliance standard until the two sampling events in 2017 and the spring 2018 sampling event, after which TCE rebounded above its compliance standard.



PC-1 and PC-2 are OPDC monitoring wells used to assess groundwater quality in the upper 30 feet of the OPDC Aquifer. As noted in the EDR, the wells were constructed in this manner to match similar construction of the OPDC Aquifer wells constructed on the north side of the NIROP facility located to the west of the Site. Sampling of these wells utilizes low-flow purge techniques. As shown on the attached Figures 5a and 5b, PC-1 is located northwest of the Site on the adjacent north property and is hydrologically downgradient of the Source Area. PC-2 is located in the southwest corner of the Site. Based on groundwater levels collected at the Site, PC-2 is considered tangential of flow relative to the Source Area.

No VOCs have been detected in PC-1 since 2011 with exception to 1,4-Dioxane[12] which was detected below its compliance standard in both 2017 sampling events. Historically, toluene was only detected on two occasions prior to 2011 at an average concentration of 0.39 µg/L. Since 2011, the VOCs at PC-1 have been reduced to an average concentration of 0.11 µg/L, a reduction of 73%. VOC data for this well is not further analyzed or plotted. PC-1 is downgradient of the DPW and the general Source Area.

As described in the EDR (Section 4.2) and tabulated in the 2014 AMR, PC-2 has been monitored since 1998. Six VOCs were detected at PC-2 prior to 2011. Three VOCs have been present since 2011: cis DCE, PCE and TCE. Table 3.3-2 summarizes the statistics since 2011 for the three VOCs found at PC-2.

Table 3.3-2
VOC Concentration Statistics for PC-2

VOC Present	Number of Times Detected	Maximum Concentration (µg/L)	Minimum Concentration (µg/L)	Average Concentration (µg/L)	MDH Compliance Standard (µg/L) and Source
cis DCE	12	3.9	0	1.10	6 HBV
PCE	14	201	0	46.02	4 HBV
TCE	14	8.8	0	2.52	0.4 HRL

The data indicates all three VOCs have been detected during the majority of the sampling events.

[12] As noted earlier, 1,4-dioxane is an analyte that was recently added under EPA RIWP and was analyzed during the 2017 monitoring events. 1,4-dioxane was inadvertently not analyzed in 2018, but will be analyzed during subsequent monitoring events.

Comparing pre 2011 and post 2011 average concentrations for these VOCs: cis DCE (5.0 and 1.1 µg/L) has decreased 78%; PCE (211.4 and 46.02 µg/L) has decreased 78%; and TCE (7.0 and 2.52 µg/L) has decreased 64%. For the sum of average VOC concentrations, pre 2011 (6 VOCs) was 227.3 µg/L; post 2011 (4VOCs) is 49.64 µg/L. This is an overall VOC reduction of 78%. The attached Figures 5a and 5b indicate groundwater at PC-2 is moving to the west/northwest. PC-2 is tangential to and upgradient to DPW and the general Source Area.

Figure 3.3-2a presents the cis DCE and TCE concentration trends since 2011 relative to their compliance standards. The data indicates that the cis DCE concentration is generally constant and the TCE concentration is decreasing. The TCE concentration is generally exceeding its compliance standard since 2011. The cis DCE concentration is below its compliance standard for all monitoring events at PC-2.

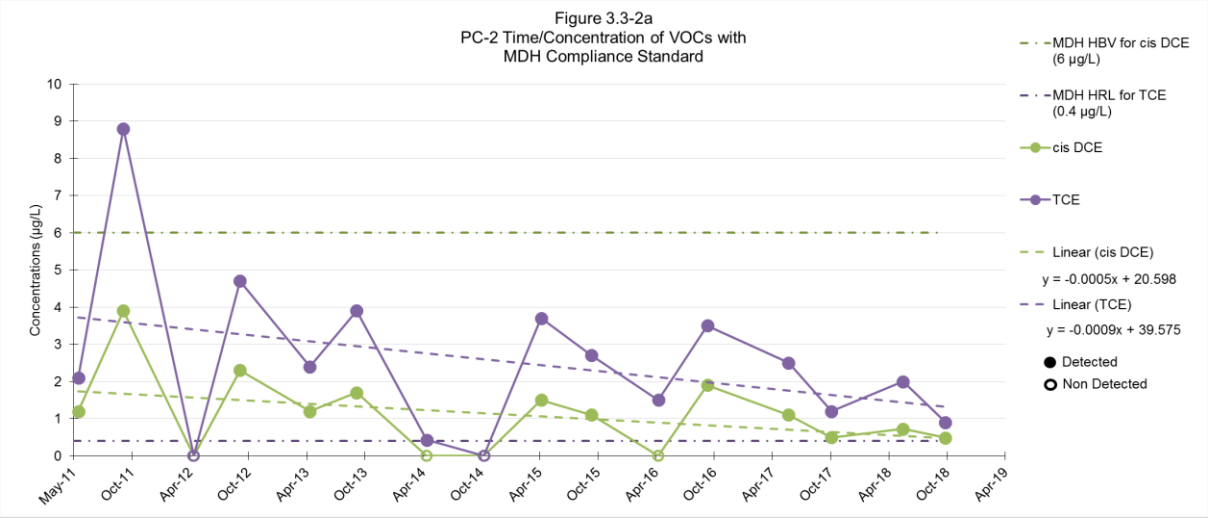
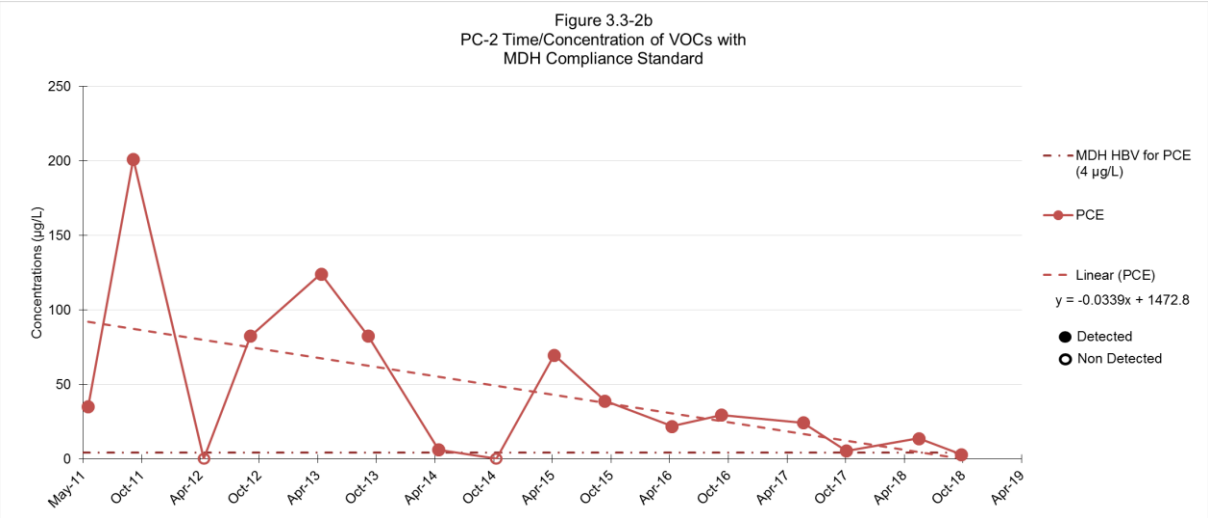


Figure 3.3-2b presents the PCE concentration trend since 2011 relative to its compliance standard. The data indicates that the concentration is decreasing and has generally been above its compliance standard.



Discussion and Conclusions OPDC Aquifer

In the OPDC Aquifer, three VOCs are found on more than two occasions: cis DCE, PCE and TCE. Table 3.3-3, summarizes the trends and compliance for these VOCs in the OPDC Aquifer. As noted in Section 3.1 above, the VOCs PCE, TCE and TCA were used at the Site and considered parent products. As also noted in Section 3.1, cis DCE and TCE are considered daughter (or degradation) products of these parents.

Table 3.3-3
VOC Summary OPDC Aquifer Wells

Monitoring Well (MW)	cis DCE			PCE			TCE		
	Detected	Trend	Compliance	Detected	Trend	Compliance	Detected	Trend	Compliance
DPW	Y	D	13/16	Y	D	3/16	Y	D	14/16
PC-1	N	-	0/9	N	-	0/9	N	-	0/9
PC-2	Y	C	0/16	Y	D	13/16	Y	D	14/16

Notes:
- : No Trend (2 or less detections)
C: Constant Trend (slope of regression line ≤ 0.0005)
I: Increasing Trend
D: Decreasing Trend
Compliance: Ratio of Times Exceeded / Times Analyzed

Relative to these three VOCs:

- cis DCE is found in DPW, where the concentration is decreasing, and PC-2, where the concentration is generally constant. cis DCE only exceeds its compliance standard at DPW, which is near the Source Area;

- PCE is found in DPW and PC-2, where the concentrations are decreasing. PCE has not exceeded its compliance standard since 2012 at DPW, which is near the Source Area, but PCE exceeds its compliance standard the majority of the time at PC-2, which is located in the southwest corner of the Site; and

- TCE is found in DPW and PC-2, where the concentrations are decreasing. TCE exceeds its compliance standard the majority of the time at both wells.

The DPW has not been in operation since the 1980's. As noted above, it is believed to have drawn the VOCs from the Source Area downwards when it did operate. The VOCs present in this well are attributed to this route of contamination. It is believed that dissolved VOCs likely are present in secondary porosity of the OPDC Aquifer where they are dispersing and/or degrading.

As described in the 2015 EDR:

- The MPCA required that the DPW be pumped to "capture" contaminated groundwater at the Site; however, the DPW ceased pumping because contaminants were being drawn from the Quaternary Aquifer downwards into the underlying OPDC Aquifer; and

- No analytical testing has verified Dense Non-Aqueous Phase Liquid (DNAPL) presence and no concentrations that exceeded the solubility limit for a VOC have been reported in the OPDC wells. In addition, there is no breach in the DPW well casing and the casing is not an avenue for DNAPL to be induced to move downwards. To further investigate the potential for DNAPL accumulation in the DPW, during the May 2015 sampling event the DPW was sampled at its base within the Jordan Sandstone portion of the Bedrock Aquifer. The data indicates dissolved-phase dispersion in this aquifer system, not the presence of DNAPL.

Considering data presented for MW-3 and MW-7 in Section 2.2 above, the Source Area Quaternary Aquifer vertical groundwater gradient is generally upwards, with the exception of the most recent 2018 sampling events where MW-3 static water levels were outliers, as noted in Table 2.2-5. If the DPW can be considered proximate enough to these two shallower wells to be considered a "nest", based on using the EPA calculation in the cited reference in Section 2.2, the vertical gradient is upwards between the OPDC Aquifer and the Surficial Aquifer[13], as would be expected in a discharge area[14] for this Aquifer. A component of advection/dispersive contaminant movement could move upwards from the OPDC to the overlying Quaternary Aquifer and then to flow towards RW-C, limiting any off-site migration.

The Landmark RI Report submitted to EPA and copied to the MPCA has a lengthy analysis of the water quality at PC-2 compared to that of DPW and off-site NIROP wells. The conclusion, in part, of that analysis is that the water quality at PC-2 does not reflect the water quality at DPW, and that it reflects off-site loading of VOCs to the south of the Site. Further, it is concluded that there is no indication that VOCs from the Source Area have impacted any off-site well on the Reviva, NIROP or City of Fridley properties. The following is consistent with the RI Report analysis.

Regarding migration of VOCs from DPW to PC-2, attached Figures 5a and 5b indicate PC-2 has a higher static water elevation than the DPW; however, based on triangulation with PC-1, PC-2 is effectively tangential to DPW hydrogeologically.

Figures 3.3-3a through 3.3-3c compare the VOC trends between DPW and PC-2. Figure 3.3-3a shows the PCE change at DPW and PC-2 since 2011. The correlation coefficient between these wells is 0.79, which is considered a strong correlation, and the PCE trend is decreasing at both wells. As shown in Figure 3.3-a, PCE concentrations are higher at PC-2 then at DPW for the majority of the sampling periods. In review of the historic (see the 2014 AMR and 2015 EDR) PCE data reported at DPW, the DPW's PCE concentration has exceeded the 201 µg/L concentration found at PC-2 only once since 1994: a concentration of 498 µg/L in November 2006. The lack of persistent PCE data above 201 µg/L does not support PCE moving from DPW to PC-2. It supports another source of VOC contamination.

[13] For 2016, the vertical gradient was upwards between MW-7 and the DPW at 0.005625 in May and 0.0025 in October, and between MW-3 and the DPW it was upwards at 0.04474 and 0.04977 for these time periods. Values are from screen/open hole midpoints and in units of feet/foot.

[14] Regional flow for the OPDC Aquifer is documented in the RI Report.

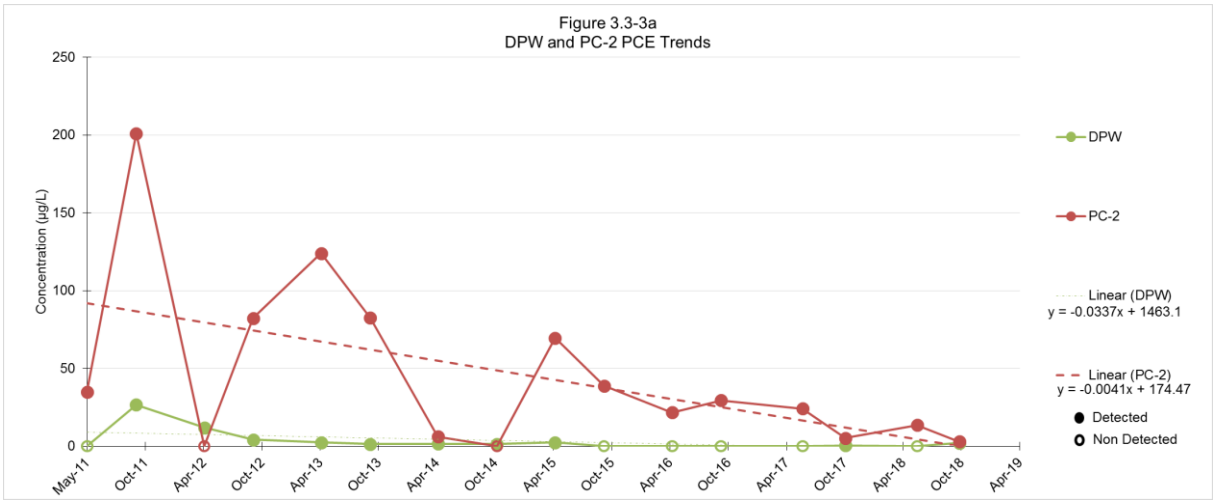


Figure 3.3-3b shows the TCE change at DPW and PC-2 since 2011. The correlation coefficient between these wells is -0.67, which is considered a moderate correlation. The TCE trend is decreasing at both wells, but decreasing at a greater slope at the DPW. If DPW TCE was the source of contamination at PC-2, a correlating decrease in the concentration at PC-2 should be present. However, the concentration at PC-2 remains relatively constant inferring a consistent loading source.

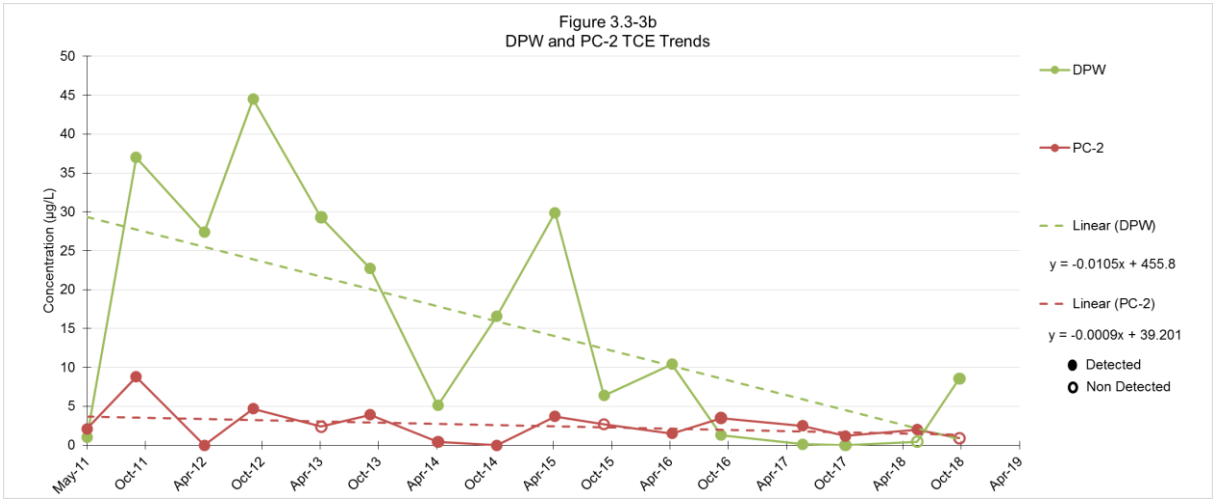
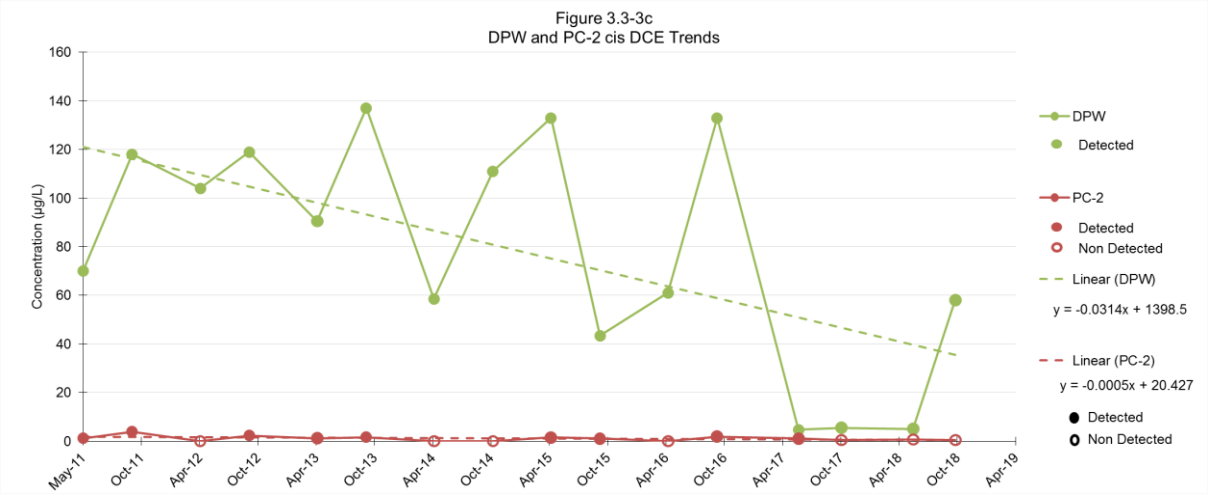


Figure 3.3-3c shows the cis DCE change at DPW and PC-2 since 2011. The correlation coefficient between these wells is 0.65, which is considered a moderate correlation. The cis DCE trend is decreasing at DPW, but the cis DCE trend is generally constant at PC-2. As noted for TCE, if DPW cis DCE was the source of contamination at PC-2, a correlating decrease in the concentration at PC-2 should be present. However, the concentration at PC-2 remains relatively constant inferring a consistent loading source.



Based on a comparative evaluation of pre 2011 and post 2011 sum of average VOC concentrations, the VOCs found at the Site in the OPDC Aquifer have decreased in concentration (between 29 and 78%) in all wells. This trend is a positive indicator of improving groundwater quality at the Site in this portion of the aquifer and despite an off-Site source of VOC impacting PC-2. This is likely a result of improved chemical management by Kurt, response actions implemented by Kurt, advection/dispersion within the aquifer, and/or natural attenuation of the VOCs released from the Source Area.

4.0 REMEDIATION SYSTEM MAINTENANCE AND MONITORING

Monthly meter readings from the groundwater withdrawal system for 2018 are summarized in Table 4.0-1 and indicate that 15,479,250 gallons were pumped from RW-C.

Table 4.0-1
2018 Monthly Meter Readings from Groundwater Withdrawal System

Inspection Date	Meter Reading (gallons)	Groundwater Withdrawn (gallons)	Pumping Rate (gpm)
2-Jan-18	196,407,860	0	
1-Feb-18	197,663,370	1,255,510	29.1
1-Mar-18	198,852,770	1,189,400	27.5
1-Apr-18	200,046,590	1,193,820	27.6
1-May-18	201,346,550	1,299,960	30.1
1-Jun-18	202,734,730	1,388,180	32.1
29-Jun-18	203,957,230	1,222,500	28.3
1-Aug-18	205,390,480	1,433,250	33.2
31-Aug-18	206,606,500	1,216,020	28.1
1-Oct-18	207,907,850	1,301,350	30.1
1-Nov-18	209,215,910	1,308,060	30.3
30-Nov-18	210,456,860	1,240,950	28.7
2-Jan-19	211,887,110	1,430,250	33.1
Total		**15,479,250**	

The system operated nearly continuously with no significant downtime experienced for 2018

operations. Copies of the monthly groundwater withdrawal system operation and maintenance records are provided in Appendix D.

The 2018 Metropolitan Council Environmental Services (MCES) quarterly monitoring reports for the groundwater withdrawal system discharge are included in Appendix E. Multiplying the total volume of water pumped each quarter by the concentration of combined TCE and PCE from the discharge sampling for that quarter, we estimate a removal of approximately 97.7 pounds of combined TCE and PCE for 2018 as shown in Table 4.0-2.

Table 4.0-2
2018 PCE and TCE Removed

Quarter	Groundwater Withdrawn for Quarter (gallons)	TCE + PCE Concentration (µg/L)	TCE + PCE Mass (lbs)
First Quarter	3,638,730	702.7	21.3
Second Quarter	3,910,640	679.0	22.2
Third Quarter	3,950,620	932.3	30.7
Fourth Quarter	3,979,260	706.0	23.4
Total	**15,479,250**		**97.7**

This is comparable to the removal of TCE/PCE mass since 2011. A graph of annual mass of TCE/PCE removed from 2000 to 2018 is presented as Figure 4.0-1.

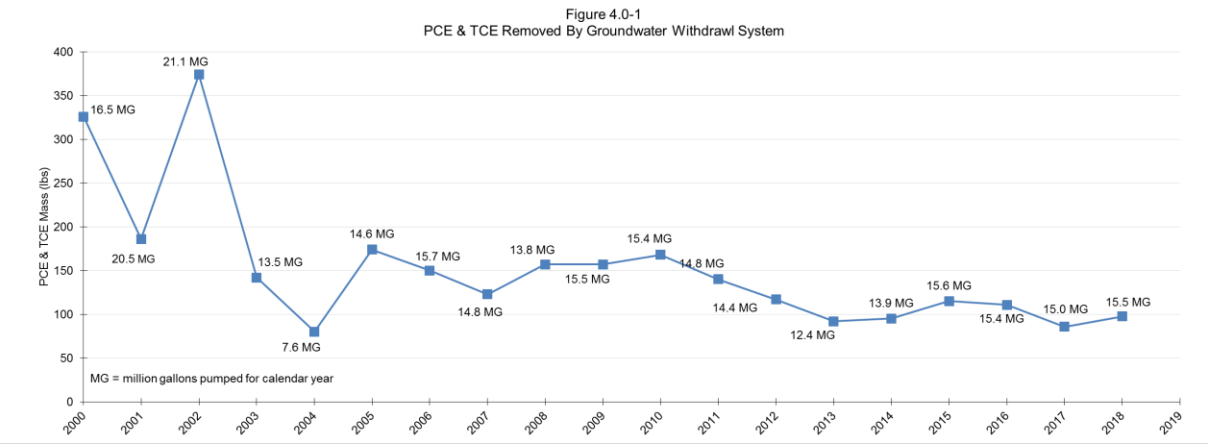


Figure 4.0-1 infers that the mass recovered has declined with time; however, since 2005 it has remained reasonably consistent and correlates to the volume of groundwater pumped from the system. Data for years prior to 2000 is not comparable due to the use of different withdrawal wells and incomplete pumping data.

The 2017 RI Report provides a detailed analysis of the RW-C performance in a Technical Memoranda to the Report. It evaluates the relationship of static water levels, pumping rates and contaminant capture, and supports the systems efficiency in capturing all contaminated groundwater within the Quaternary Aquifer associated with the Source Area release. It also documents that RW-C is influencing off-site groundwater flow and is drawing VOC contamination on to the Site. The result is a comingling of plumes and the capture of contaminants not associated with Kurt's operation. This is an added cost for Kurt and it prolongs the need for Kurt to operate RW-C. The RI Report recommends the completion of a Focused Feasibility Study to review response actions to reduce the contaminant mass at the Site and to reduce the length of

time RW-C needs to operate.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The following summarizes the conclusions developed in the above sections:

- Consistent with data plotted in previous AMRs, in October and June of 2018 the plotted equipotential surface for the three monitored intervals of the Site groundwater system shows:

    - Horizontal capture by RW-C within the Shallow and Deep Quaternary Aquifer that extends to the Site boundaries and beyond; and

    - The OPDC Aquifer has horizontal flow direction to the west/northwest at the Site.

- RW-C influence creates an upward gradient at depth as water is drawn upwards towards the recovery well relative to the water level in the shallow well of the nest. Vertical gradients calculated from Site well nests indicated an upward gradient at the two well nests located south of RW-C demonstrating groundwater capture through the entire saturated thickness of the Quaternary Aquifer between the Source Area and RW-C. Well nests MW-5/MW-9 and MW4/15 located along the southern Site boundary, have a downward gradient potentially reflecting the southern limit of RW-C influence at the Site;

- An upwards vertical gradient is present between the OPDC and Quaternary Aquifer in the Source Area. The OPDC is in a discharge zone regionally based on proximity to the Mississippi River.

- Regarding static water levels at the Site:

    - For the Shallow Quaternary Aquifer, the data indicate that since 2011 the water levels generally deviate 2.0 ft. The trend in groundwater elevation appears to be primarily increasing at a relatively low rate overall;

    - For the Deep Quaternary Aquifer, the data indicate that since 2011 the water levels deviate generally 2.0 ft. The trend in groundwater elevation appears to be primarily increasing at a relatively low rate overall; and

    - For the OPDC Aquifer the data indicate that since 2011 the water levels deviate generally 1.5 ft. The trend in groundwater elevation appears to be increasing at a relatively low rate;

- For the Shallow Quaternary Aquifer nine wells monitor water quality since 2011:

    - Four VOCs are found on more than two occasions in seven of these wells: cis and trans DCE, PCE and TCE. Of these VOCs compounds, trans DCE is found on a limited basis and at a concentration well below its compliance standard. It is not considered a significant contaminant at this time and only the three VOCs, cis DCE, PCE and TCE, are a general concern for this portion of this aquifer;

    - VOCs present at well MW-3 are representative of the release in the Source Area. The predominant VOCs present at MW-3 are PCE and TCE, and their concentrations are

decreasing, but remain elevated above compliance standards. Degradation products of PCE and TCE have been present at MW-3, but these compounds have been absent or detected below their compliance standards in the past few years.

The perimeter, upgradient wells MW-2, MW-4, MW-5 and MW-12 all have VOCs present. VOCs are generally constant at MW-2 and MW-4, decreasing or increasing at MW-5 and generally constant or decreasing at MW-12. VOC concentrations at these wells are a result of releases off of the Site and the VOCs present at these wells are moving towards RW-C causing a comingling of plumes at the Source Area and causing contaminant loading at Site monitoring wells MW-3 and MW-6. Regardless, VOC concentrations are decreasing at MW-6 as the Source Area plume concentrations decrease through degradation and advection/dispersion. Increasing PCE at MW-14 is attributed to migration of PCE from the area of MW-12 or off-site west of MW-12 causing VOC loading at RW-C; and

- Based on a comparative evaluation of pre 2011 and post 2011 sum of average VOC concentrations, the VOCs found at the Site in the Shallow Quaternary Aquifer have decreased significantly in concentration (between 12 and ~100%) in eight of the nine wells, despite potential migration of contaminants on to the Site from off-site sources. This trend is a positive indicator of improving groundwater quality at the Site in this portion of the aquifer. This is a result of response actions completed at the Site, reductive dechlorination, and/or advection/dispersion within the aquifer;

- For the Deep Quaternary Aquifer seven wells monitor water quality since 2011:

  - Seven VOCs are found on more than two occasions: DCA, DCE, cis and trans DCE, PCE, TCE and vinyl chloride. However, DCA, DCE and trans DCE are found on a limited basis and/or at concentrations well below their respective compliance standards. Therefore, they are not considered significant contaminants at this time and only the four VOCs cis DCE, PCE, TCE and vinyl chloride are of general concern for this portion of this aquifer;

  - VOCs present at well MW-7 and Well B represent the release in the Source Area. All four VOCs are present at MW-7 and Well B, with vinyl chloride concentrations increasing only at Well B (vinyl chloride is present only in these two Source Area wells). The majority of these VOCs exceed compliance standards at both wells, with the exception of PCE at Well B.

  - MW-8 and MW-9 represent upgradient groundwater quality moving on to the Site from the south. At MW-8, PCE is present at generally constant concentrations below its compliance standard. At MW-9, cis DCE and TCE are present at generally constant concentrations with only TCE exceeding its compliance standard. This contaminated groundwater will move towards the Source Area, comingle with the plume at that location and impact water quality at MW-3 and MW-6. This is a result of pumping at RW-C. The contaminant mass at all of these Site wells is impacted by flow on to the Site.

  - MW-13 is a compliance well located north of RW-C. PCE and TCE have been present once at this well and are believed to be associated with VOC contamination moving on to the Site from the west/north. Flow moves from this well to RW-C and increases the mass present at this well.

- RW-C, the Site recovery well, has cis DCE, PCE and TCE present. Only the PCE and TCE are prevalent with concentrations both exceeding their respective compliance standards. At RW-C, PCE concentrations are decreasing, while the TCE concentrations are increasing. Increasing VOC concentrations at RW-C are associated primarily with a degraded Source Area plume moving towards this recovery well and off-Site sources; and,

- Based on a comparative evaluation of pre 2011 and post 2011 sum of average VOC concentrations, the VOCs found at the Site in the Deep Quaternary Aquifer have decreased significantly in concentration (between 55 and ~100%) in five of the seven wells despite potential contaminant loading from off-site sources. This trend is a positive indicator of improving groundwater quality at the Site in this portion of the aquifer. This is a result of response actions completed at the Site, reductive dechlorination and/or advection/dispersion within the aquifer;

- For the OPDC Aquifer three wells monitor water quality since 2011:

  - Three VOCs are found on more than two occasions: cis DCE, PCE and TCE;

  - VOCs are present only at wells DPW and PC-2. DPW monitors the release in the Source Area and all three VOCs are present at decreasing concentrations that have exceeded their compliance standards; however, PCE has not been detected above its compliance standard since 2012. At PC-2, all three VOCs are present at generally constant or decreasing concentrations, with PCE and TCE exceeding their compliance standards.

  - Based on studies completed in the 2017 RI, there is no indication that VOCs present in DPW (Source Area) have impacted any off-site well. Relatively low horizontal gradients and an upward vertical gradient may have limited movement of VOCs at the Site and caused contaminants in DPW to move to the overlying Quaternary Aquifer and be captured by RW-C; and

  - Based on a comparative evaluation of pre 2011 and post 2011 sum of average VOC concentrations, the VOCs found at the Site in the OPDC Aquifer have decreased significantly in concentration (between 29 and 78%) in all wells. This trend is a positive indicator of improving groundwater quality at the Site in this aquifer. This is a result of response actions completed at the Site, reductive dechlorination and/or advection/dispersion within the aquifer.

- In general, based on the decrease of PCE concentration, and increased TCE concentration at RW-C, the decrease of these compound concentrations in the Source Area, coupled with the presence of daughter products in the Source Area, all infer that the parent product's (PCE and TCE) concentration is being reduced by contaminants moving/dispersing down gradient and by reductive dechlorination. There is a very limited presence of the TCA/DCA parent/daughter products remaining anywhere on Site again supporting VOC degradation/loss; and,

- Based on the comparative evaluation of pre 2011 and post 2011 sum of average VOC concentrations at the Site wells, groundwater in the two aquifers have shown a significant

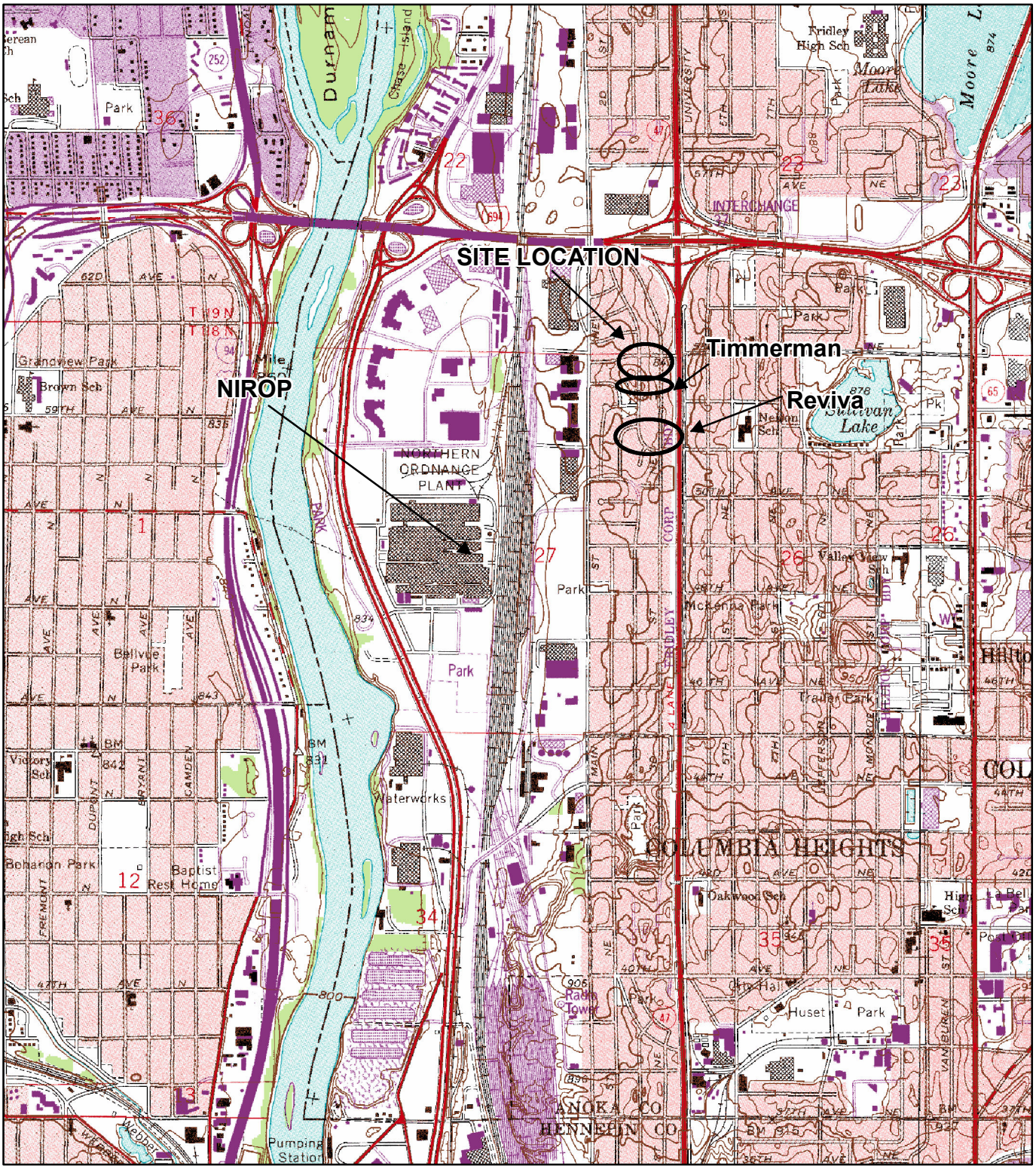
loss of VOCs Site-wide. Combining all wells, the pre 2011 sum of average VOC concentrations was 14,522.2 µg/L. In the post 2011 period, it is 2,374.8 µg/L. This is a reduction of 12,147.4 µg/L or 84%. At this time there is no indication of movement beyond the monitoring system of any VOCs in the Quaternary and OPDC Aquifer and only indication of VOCs likely moving onto the Site in both aquifers. The loss of VOCs from the Site groundwater is believed to be a result of one or more of the following:

- Improved chemical management by Kurt;
- Response actions implemented by Kurt;
- Advection/dispersion within the aquifers;
- Improving on-site and off-site water quality from reduced loading; and/or
- Natural attenuation of the VOCs.

The following are recommended:

- Focus on a trend/correlation post-2011 for the VOCs cis DCE, PCE, TCE and vinyl chloride, with appropriate referral to historic data;
- Scheduled biannual sampling and annual reporting.

FIGURES



F:\GIS\Client\KRT-Kurt Mfr\AMR\Projects\Figure 1- Site Map.mxd

FIGURE 1
SITE LOCATION MAP
Kurt Manufacturing Facility
Fridley, Minnesota

LANDMARK ENVIRONMENTAL, LLC

N

0 700 1,400 2,800 Feet

1 inch = 2,000 feet

Figure 2

Site Layout Map

Kurt Manufacturing - Fridley, MN

Landmark Environmental, LLC

Legend

- Monitoring Well Location
- Abandoned Monitoring Well Location

PC-1
MW-14
MW-13
MW-12
MW-1
MW-6
WELL D
GWTS Discharge to Air Break
Plumbing Inside Janitor's Closet
Outdoor HAZ-Waste Storage
(Boneyard)
Boeing
Assembly
Store Room
NDT
Water Softener
RW C/WELL C
Tool Room
(The Garage)
Tool Room
Vapor Degreaser
Vapor Degreaser
White Plate Bath
FMC
Deep Production Well
Vapor Degreaser
Loading Dock
Chip Bin/Sump
Outdoor HAZ-Waste Storage
MW-3
MW-7
WELL A
WELL B
MW-2
MW-8
PC-2
MW-5
MW-9
MW-15
MW-4

Note:
Basemap provided by Kurt Manufacturing

0 25 50 100 150 200 Feet

F:\GIS\Client\KRT-Kurt Mfr\VMR\Projects\KURT BASEMAP with Wells and Borings.mxd

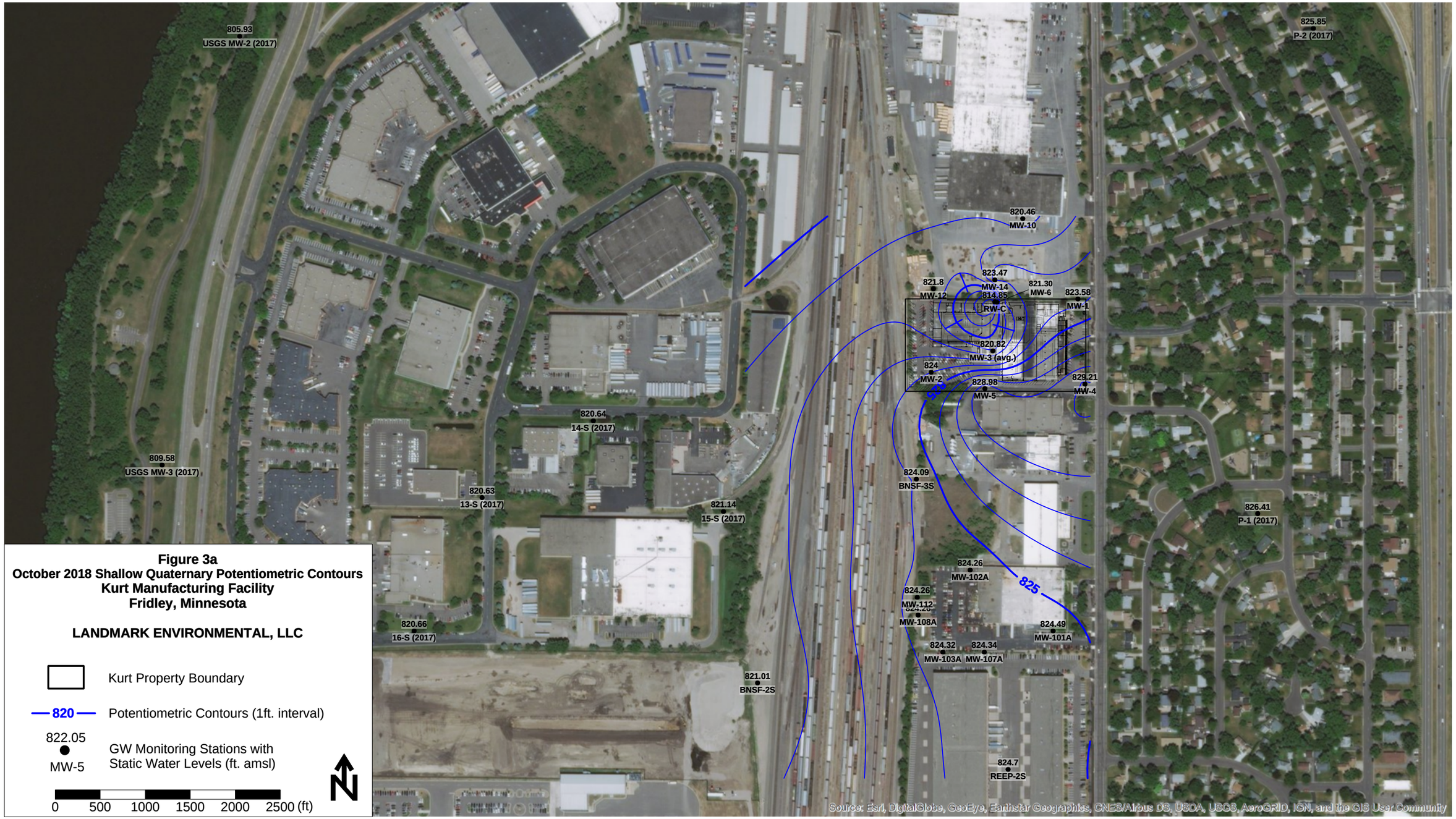


Figure 3a
October 2018 Shallow Quaternary Potentiometric Contours
Kurt Manufacturing Facility
Fridley, Minnesota

LANDMARK ENVIRONMENTAL, LLC

Kurt Property Boundary

820 — Potentiometric Contours (1ft. interval)

822.05
MW-5
GW Monitoring Stations with Static Water Levels (ft. amsl)

0 500 1000 1500 2000 2500 (ft)

Source: See Section 3.3 of the EDR for data source information for Monitoring Well locations.

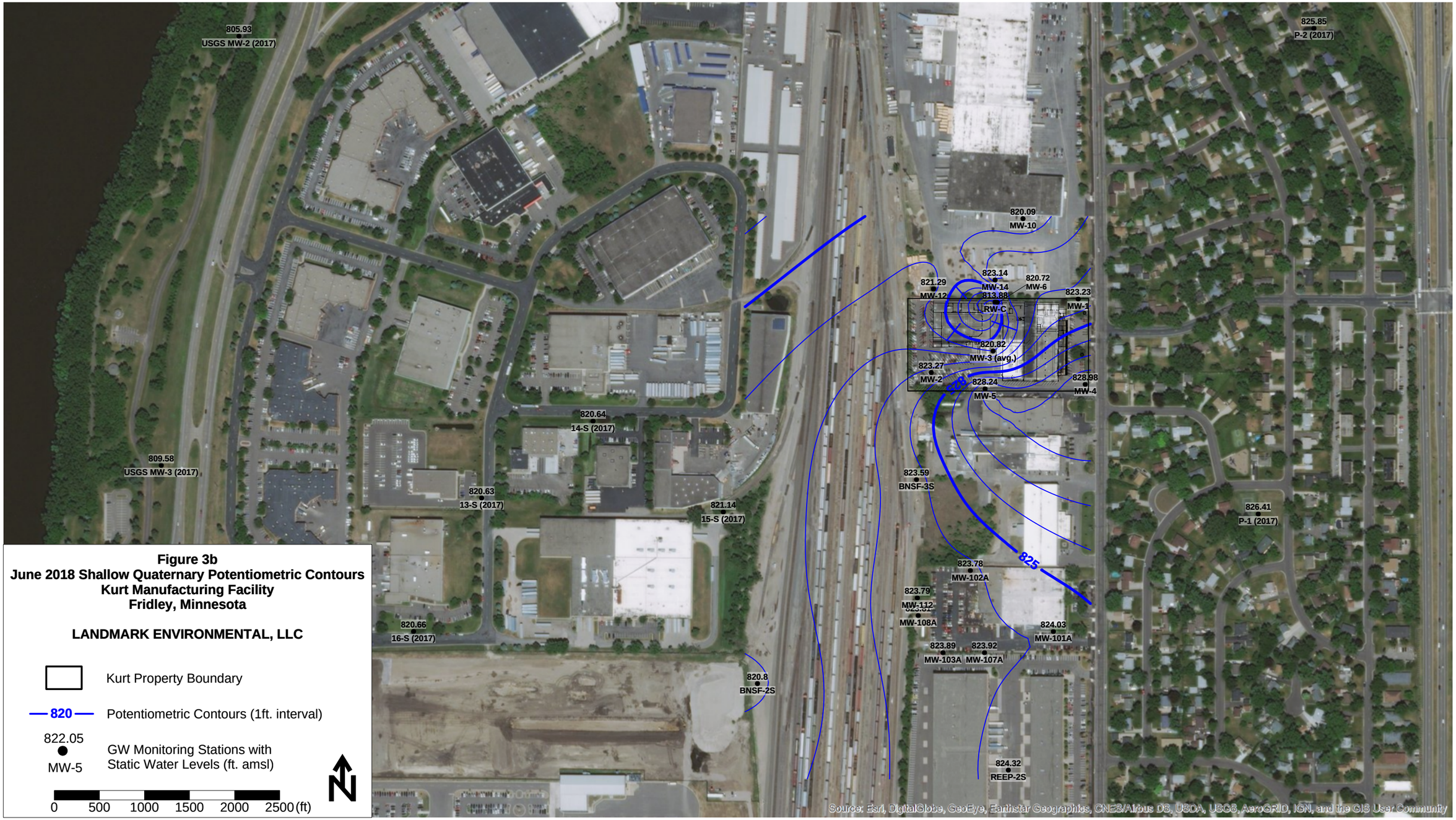


Figure 3b
June 2018 Shallow Quaternary Potentiometric Contours
Kurt Manufacturing Facility
Fridley, Minnesota

LANDMARK ENVIRONMENTAL, LLC

Kurt Property Boundary

820 — Potentiometric Contours (1ft. interval)

822.05
MW-5
GW Monitoring Stations with Static Water Levels (ft. amsl)

0 500 1000 1500 2000 2500 (ft)

N

Source: See Section 3.3 of the EDR for data source information for Monitoring Well locations.

Figure 4a
October 2018 Deep Quaternary Potentiometric Contours
Kurt Manufacturing Facility
Fridley, Minnesota

LANDMARK ENVIRONMENTAL, LLC

Kurt Property Boundary

820 Potentiometric Contours (1ft. interval)

822.05
MW-5
GW Monitoring Stations with Static Water Levels (ft. amsl)

0 200 400 600 (ft)

Source: See Section 3.3 of the EDR for data source information for Monitoring Well locations.

Figure 4b
June 2018 Deep Quaternary Potentiometric Contours
Kurt Manufacturing Facility
Fridley, Minnesota

LANDMARK ENVIRONMENTAL, LLC

Kurt Property Boundary

820 Potentiometric Contours (1ft. interval)

822.05
MW-5
GW Monitoring Stations with Static Water Levels (ft. amsl)

0 200 400 600 (ft)

Source: See Section 3.3 of the EDR for data source information for Monitoring Well locations.

Source: See Section 3.3 of the EDR for data source information for Monitoring Well locations.

Source: See Section 3.3 of the EDR for data source information for Monitoring Well locations.

APPENDIX A
OCTOBER 2018 ANALYTICAL REPORT

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

October 26, 2018

Mr. David Anderson
Pace Analytical Services, LLC.
1700 Elm Street
Suite 200
Minneapolis, MN 55414

RE: Project: 18-01251 Landmark-KurtMfg 2H18
Pace Project No.: 10451928

Dear Mr. Anderson:
Enclosed are the analytical results for sample(s) received by the laboratory on October 16, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Some analyses have been subcontracted outside of the Pace Network. The subcontracted laboratory report has been attached.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jennifer Anderson
jennifer.anderson@pacelabs.com
(612)607-6436
Project Manager

Enclosures

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: 18-01251 Landmark-KurtMfg 2H18
Pace Project No.: 10451928

Minnesota Certification IDs

1700 Elm Street SE, Minneapolis, MN 55414-2485
A2LA Certification #: 2926.01
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
CNMI Saipan Certification #: MP0003
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
Guam EPA Certification #: MN00064
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: 03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Massachusetts Certification #: M-MN064
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Certifcation #: via MN 027-053-137
Minnesota Petrofund Certification #: 1240
Mississippi Certification #: MN00064
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon NwTPH Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DW Certification #: 9952 C
West Virginia DEP Certification #: 382
Wisconsin Certification #: 999407970
Wyoming UST Certification #: via A2LA 2926.01

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

SAMPLE SUMMARY

Project: 18-01251 Landmark-KurtMfg 2H18
Pace Project No.: 10451928

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10451928001	**Deep Production Well**	Water	10/15/18 09:55	10/16/18 16:20
10451928002	**PC-1**	Water	10/15/18 10:45	10/16/18 16:20
10451928003	**PC-2**	Water	10/15/18 11:35	10/16/18 16:20
10451928004	**Well B**	Water	10/15/18 12:30	10/16/18 16:20
10451928005	**MW-10**	Water	10/15/18 13:20	10/16/18 16:20
10451928006	**MW-12**	Water	10/15/18 14:10	10/16/18 16:20
10451928007	**MW-1**	Water	10/15/18 14:45	10/16/18 16:20
10451928008	**MW-4**	Water	10/15/18 15:20	10/16/18 16:20
10451928009	**MW-15**	Water	10/16/18 09:00	10/16/18 16:20
10451928010	**MW-8**	Water	10/16/18 09:45	10/16/18 16:20
10451928011	**MW-2**	Water	10/16/18 10:15	10/16/18 16:20
10451928012	**MW-9**	Water	10/16/18 10:55	10/16/18 16:20
10451928013	**MW-5**	Water	10/16/18 11:35	10/16/18 16:20
10451928014	**MW-13**	Water	10/16/18 12:25	10/16/18 16:20
10451928015	**MW-14**	Water	10/16/18 12:55	10/16/18 16:20
10451928016	**MW-7**	Water	10/16/18 13:45	10/16/18 16:20
10451928017	**MW-3**	Water	10/16/18 14:20	10/16/18 16:20
10451928018	**Recovery Well C**	Water	10/16/18 14:55	10/16/18 16:20
10451928019	**MW-6**	Water	10/16/18 15:45	10/16/18 16:20

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

SAMPLE ANALYTE COUNT

Project: 18-01251 Landmark-KurtMfg 2H18
Pace Project No.: 10451928

Lab ID	Sample ID	Method	Analysts	Analytes Reported
10451928001	**Deep Production Well**	RSK 175	AMC	3
10451928002	**PC-1**	RSK 175	AMC	3
10451928003	**PC-2**	RSK 175	AMC	3
10451928004	**Well B**	RSK 175	AMC	3
10451928005	**MW-10**	RSK 175	AMC	3
10451928006	**MW-12**	RSK 175	AMC	3
10451928007	**MW-1**	RSK 175	AMC	3
10451928008	**MW-4**	RSK 175	AMC	3
10451928009	**MW-15**	RSK 175	AMC	3
10451928010	**MW-8**	RSK 175	AMC	3
10451928011	**MW-2**	RSK 175	AMC	3
10451928012	**MW-9**	RSK 175	AMC	3
10451928013	**MW-5**	RSK 175	AMC	3
10451928014	**MW-13**	RSK 175	AMC	3
10451928015	**MW-14**	RSK 175	AMC	3
10451928016	**MW-7**	RSK 175	AMC	3
10451928017	**MW-3**	RSK 175	AMC	3
10451928018	**Recovery Well C**	RSK 175	AMC	3
10451928019	**MW-6**	RSK 175	AMC	3

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ANALYTICAL RESULTS

Project: 18-01251 Landmark-KurtMfg 2H18
Pace Project No.: 10451928

Sample: Deep Production Well **Lab ID: 10451928001** Collected: 10/15/18 09:55 Received: 10/16/18 16:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175							
Ethane	ND	ug/L	10.0	1		10/19/18 12:47	74-84-0	
Ethene	ND	ug/L	10.0	1		10/19/18 12:47	74-85-1	
Methane	**636**	ug/L	10.0	1		10/19/18 12:47	74-82-8	

Sample: PC-1 **Lab ID: 10451928002** Collected: 10/15/18 10:45 Received: 10/16/18 16:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175							
Ethane	ND	ug/L	10.0	1		10/19/18 12:55	74-84-0	
Ethene	ND	ug/L	10.0	1		10/19/18 12:55	74-85-1	
Methane	**334**	ug/L	10.0	1		10/19/18 12:55	74-82-8	

Sample: PC-2 **Lab ID: 10451928003** Collected: 10/15/18 11:35 Received: 10/16/18 16:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175							
Ethane	ND	ug/L	10.0	1		10/19/18 13:02	74-84-0	
Ethene	ND	ug/L	10.0	1		10/19/18 13:02	74-85-1	
Methane	**216**	ug/L	10.0	1		10/19/18 13:02	74-82-8	

Sample: Well B **Lab ID: 10451928004** Collected: 10/15/18 12:30 Received: 10/16/18 16:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175							
Ethane	ND	ug/L	10.0	1		10/19/18 13:09	74-84-0	
Ethene	ND	ug/L	10.0	1		10/19/18 13:09	74-85-1	
Methane	**162**	ug/L	10.0	1		10/19/18 13:09	74-82-8	

Sample: MW-10 **Lab ID: 10451928005** Collected: 10/15/18 13:20 Received: 10/16/18 16:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175							
Ethane	ND	ug/L	10.0	1		10/19/18 13:46	74-84-0	
Ethene	ND	ug/L	10.0	1		10/19/18 13:46	74-85-1	
Methane	ND	ug/L	10.0	1		10/19/18 13:46	74-82-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 18-01251 Landmark-KurtMfg 2H18
Pace Project No.: 10451928

Sample: MW-12 **Lab ID: 10451928006** Collected: 10/15/18 14:10 Received: 10/16/18 16:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175							
Ethane	ND	ug/L	10.0	1		10/19/18 13:54	74-84-0	
Ethene	ND	ug/L	10.0	1		10/19/18 13:54	74-85-1	
Methane	**3840**	ug/L	10.0	1		10/19/18 13:54	74-82-8	

Sample: MW-1 **Lab ID: 10451928007** Collected: 10/15/18 14:45 Received: 10/16/18 16:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175							
Ethane	ND	ug/L	10.0	1		10/19/18 14:01	74-84-0	
Ethene	ND	ug/L	10.0	1		10/19/18 14:01	74-85-1	
Methane	**159**	ug/L	10.0	1		10/19/18 14:01	74-82-8	

Sample: MW-4 **Lab ID: 10451928008** Collected: 10/15/18 15:20 Received: 10/16/18 16:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175							
Ethane	ND	ug/L	10.0	1		10/19/18 14:08	74-84-0	
Ethene	ND	ug/L	10.0	1		10/19/18 14:08	74-85-1	
Methane	ND	ug/L	10.0	1		10/19/18 14:08	74-82-8	

Sample: MW-15 **Lab ID: 10451928009** Collected: 10/16/18 09:00 Received: 10/16/18 16:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175							
Ethane	ND	ug/L	10.0	1		10/22/18 10:23	74-84-0	
Ethene	ND	ug/L	10.0	1		10/22/18 10:23	74-85-1	
Methane	ND	ug/L	10.0	1		10/22/18 10:23	74-82-8	

Sample: MW-8 **Lab ID: 10451928010** Collected: 10/16/18 09:45 Received: 10/16/18 16:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175							
Ethane	ND	ug/L	10.0	1		10/22/18 10:30	74-84-0	
Ethene	ND	ug/L	10.0	1		10/22/18 10:30	74-85-1	
Methane	ND	ug/L	10.0	1		10/22/18 10:30	74-82-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 18-01251 Landmark-KurtMfg 2H18
Pace Project No.: 10451928

Sample: MW-2 **Lab ID: 10451928011** Collected: 10/16/18 10:15 Received: 10/16/18 16:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175							
Ethane	ND	ug/L	10.0	1		10/22/18 10:37	74-84-0	
Ethene	ND	ug/L	10.0	1		10/22/18 10:37	74-85-1	
Methane	**1040**	ug/L	10.0	1		10/22/18 10:37	74-82-8	

Sample: MW-9 **Lab ID: 10451928012** Collected: 10/16/18 10:55 Received: 10/16/18 16:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175							
Ethane	ND	ug/L	10.0	1		10/22/18 10:44	74-84-0	
Ethene	ND	ug/L	10.0	1		10/22/18 10:44	74-85-1	
Methane	ND	ug/L	10.0	1		10/22/18 10:44	74-82-8	

Sample: MW-5 **Lab ID: 10451928013** Collected: 10/16/18 11:35 Received: 10/16/18 16:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175							
Ethane	ND	ug/L	10.0	1		10/22/18 10:51	74-84-0	
Ethene	ND	ug/L	10.0	1		10/22/18 10:51	74-85-1	
Methane	ND	ug/L	10.0	1		10/22/18 10:51	74-82-8	

Sample: MW-13 **Lab ID: 10451928014** Collected: 10/16/18 12:25 Received: 10/16/18 16:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175							
Ethane	ND	ug/L	10.0	1		10/22/18 10:58	74-84-0	
Ethene	ND	ug/L	10.0	1		10/22/18 10:58	74-85-1	
Methane	ND	ug/L	10.0	1		10/22/18 10:58	74-82-8	

Sample: MW-14 **Lab ID: 10451928015** Collected: 10/16/18 12:55 Received: 10/16/18 16:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175							
Ethane	ND	ug/L	10.0	1		10/22/18 11:22	74-84-0	
Ethene	ND	ug/L	10.0	1		10/22/18 11:22	74-85-1	
Methane	ND	ug/L	10.0	1		10/22/18 11:22	74-82-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 18-01251 Landmark-KurtMfg 2H18
Pace Project No.: 10451928

Sample: MW-7 **Lab ID: 10451928016** Collected: 10/16/18 13:45 Received: 10/16/18 16:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175							
Ethane	ND	ug/L	10.0	1		10/22/18 11:30	74-84-0	
Ethene	ND	ug/L	10.0	1		10/22/18 11:30	74-85-1	
Methane	ND	ug/L	10.0	1		10/22/18 11:30	74-82-8	

Sample: MW-3 **Lab ID: 10451928017** Collected: 10/16/18 14:20 Received: 10/16/18 16:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175							
Ethane	ND	ug/L	10.0	1		10/22/18 11:37	74-84-0	
Ethene	ND	ug/L	10.0	1		10/22/18 11:37	74-85-1	
Methane	**144**	ug/L	10.0	1		10/22/18 11:37	74-82-8	

Sample: Recovery Well C **Lab ID: 10451928018** Collected: 10/16/18 14:55 Received: 10/16/18 16:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175							
Ethane	ND	ug/L	10.0	1		10/22/18 11:44	74-84-0	
Ethene	ND	ug/L	10.0	1		10/22/18 11:44	74-85-1	
Methane	ND	ug/L	10.0	1		10/22/18 11:44	74-82-8	

Sample: MW-6 **Lab ID: 10451928019** Collected: 10/16/18 15:45 Received: 10/16/18 16:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175							
Ethane	ND	ug/L	10.0	1		10/22/18 11:51	74-84-0	
Ethene	ND	ug/L	10.0	1		10/22/18 11:51	74-85-1	
Methane	ND	ug/L	10.0	1		10/22/18 11:51	74-82-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: 18-01251 Landmark-KurtMfg 2H18
Pace Project No.: 10451928

QC Batch: 570259 Analysis Method: RSK 175
QC Batch Method: RSK 175 Analysis Description: RSK 175 AIR HEADSPACE
Associated Lab Samples: 10451928001, 10451928002, 10451928003, 10451928004, 10451928005, 10451928006, 10451928007, 10451928008

METHOD BLANK: 3094221 Matrix: Water
Associated Lab Samples: 10451928001, 10451928002, 10451928003, 10451928004, 10451928005, 10451928006, 10451928007, 10451928008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethane	ug/L	ND	10.0	10/19/18 11:48	
Ethene	ug/L	ND	10.0	10/19/18 11:48	
Methane	ug/L	ND	10.0	10/19/18 11:48	

LABORATORY CONTROL SAMPLE & LCSD: 3094222 3094228

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Ethane	ug/L	114	112	107	99	94	85-115	5	20	
Ethene	ug/L	106	107	101	101	95	85-115	6	20	
Methane	ug/L	60.7	61.1	58.0	101	96	85-115	5	20	

SAMPLE DUPLICATE: 3094223

Parameter	Units	60283550001 Result	Dup Result	RPD	Max RPD	Qualifiers
Ethane	ug/L	ND	ND		20	
Ethene	ug/L	ND	ND		20	
Methane	ug/L	308	254	19	20	

SAMPLE DUPLICATE: 3094224

Parameter	Units	10451928008 Result	Dup Result	RPD	Max RPD	Qualifiers
Ethane	ug/L	ND	ND		20	
Ethene	ug/L	ND	ND		20	
Methane	ug/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 18-01251 Landmark-KurtMfg 2H18
Pace Project No.: 10451928

QC Batch: 570670 Analysis Method: RSK 175
QC Batch Method: RSK 175 Analysis Description: RSK 175 AIR HEADSPACE
Associated Lab Samples: 10451928009, 10451928010, 10451928011, 10451928012, 10451928013, 10451928014, 10451928015, 10451928016, 10451928017, 10451928018, 10451928019

METHOD BLANK: 3096516 Matrix: Water
Associated Lab Samples: 10451928009, 10451928010, 10451928011, 10451928012, 10451928013, 10451928014, 10451928015, 10451928016, 10451928017, 10451928018, 10451928019

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethane	ug/L	ND	10.0	10/22/18 09:16	
Ethene	ug/L	ND	10.0	10/22/18 09:16	
Methane	ug/L	ND	10.0	10/22/18 09:16	

LABORATORY CONTROL SAMPLE & LCSD: 3096517 3096518

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Ethane	ug/L	114	108	106	95	93	85-115	2	20	
Ethene	ug/L	106	103	99.4	97	94	85-115	4	20	
Methane	ug/L	60.7	58.4	57.4	96	95	85-115	2	20	

SAMPLE DUPLICATE: 3096519

Parameter	Units	60283681006 Result	Dup Result	RPD	Max RPD	Qualifiers
Ethane	ug/L	ND	ND		20	
Ethene	ug/L	ND	ND		20	
Methane	ug/L	146	132	11	20	

SAMPLE DUPLICATE: 3096520

Parameter	Units	10451993006 Result	Dup Result	RPD	Max RPD	Qualifiers
Ethane	ug/L	ND	3.8J		20	
Ethene	ug/L	715	911	24	20	R1
Methane	ug/L	785	993	23	20	R1

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 18-01251 Landmark-KurtMfg 2H18
Pace Project No.: 10451928

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

R1 RPD value was outside control limits.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 18-01251 Landmark-KurtMfg 2H18
Pace Project No.: 10451928

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10451928001	**Deep Production Well**	RSK 175	570259		
10451928002	**PC-1**	RSK 175	570259		
10451928003	**PC-2**	RSK 175	570259		
10451928004	**Well B**	RSK 175	570259		
10451928005	**MW-10**	RSK 175	570259		
10451928006	**MW-12**	RSK 175	570259		
10451928007	**MW-1**	RSK 175	570259		
10451928008	**MW-4**	RSK 175	570259		
10451928009	**MW-15**	RSK 175	570670		
10451928010	**MW-8**	RSK 175	570670		
10451928011	**MW-2**	RSK 175	570670		
10451928012	**MW-9**	RSK 175	570670		
10451928013	**MW-5**	RSK 175	570670		
10451928014	**MW-13**	RSK 175	570670		
10451928015	**MW-14**	RSK 175	570670		
10451928016	**MW-7**	RSK 175	570670		
10451928017	**MW-3**	RSK 175	570670		
10451928018	**Recovery Well C**	RSK 175	570670		
10451928019	**MW-6**	RSK 175	570670		

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CHAIN-OF-CUSTODY / Analytical Request Docu

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed ac

WO# : 10451928

10451928

1845911

Section A
Required Client Information:

Company: Landmark Environmental
Address: c/o Pace MN Field
Email To:
Phone: Fax:
Requested Due Date/TAT:

Section B
Required Project Information:

Report To: David Anderson
Copy To:
Purchase Order No.:
Project Name: 18-01251, Landmark -
Project Number: Kurt mfg. 2H2018

Section C
Invoice Information:

Attention: C.J. Ruikkie
Company Name:
Address:
Pace Quote Reference: DJA
Pace Project Manager: Jennifer Anderson
Pace Profile #: 10351

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location
STATE:

Section D
Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes
MATRIX / CODE

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test ↓ Y/N	VOCs 8260	Headspace RSK 175 (Methane Ethene Ethane)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	Deep Production Well	WT				10/15/18	0955		7	3			4					✓	✓	✓		001
2	PC-1						1645		7	3			4					✓	✓	✓		002
3	PC-2						1135		7	3			4					✓	✓	✓		003
4	Well B						1230		7	3			4					✓	✓	✓		004
5	MW-10						1320		7	3			4					✓	✓	✓		005
6	MW-12						1410		7	3			4					✓	✓	✓		006
7	MW-1						1445		7	3			4					✓	✓	✓		007
8	MW-4	↓				↓	1520		7	3			4					✓	✓	✓		008
9	MW-15	WT				10/16/18	0900		7	3			4					✓	✓	✓		009
10	MW-8						0945		7	3			4					✓	✓	✓		010
11	MW-3						1015		7	3			4					✓	✓	✓		011
12	MW-9	↓				↓	1055		7	3			4					✓	✓	✓		012

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	(4) SAMPLE CONDITIONS			
	David Anderson/Pace	10/16/18	1620		10/16/18	1620	5.4	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: David Anderson
SIGNATURE of SAMPLER: David Anderson
DATE Signed (MM/DD/YY): 10/16/18

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

1845913

Section A Required Client Information:

Company: Landmark Environmental
Address: c/o Pace MN Field
Email To:
Phone: Fax:
Requested Due Date/TAT:

Section B Required Project Information:

Report To: David Anderson
Copy To:
Purchase Order No.:
Project Name: 18-01251, Landmark - Kurt Mfg. 2 #2018
Project Number:

Section C Invoice Information:

Attention: C.J. Rukkie
Company Name:
Address:
Pace Quote Reference: DJA
Pace Project Manager: Jennifer Anderson
Pace Profile #: 10351

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE:

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes — MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N: VOCs 8260	(Headspace?)	3 1,7,5 Methanol	Ethanol Ethene	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-5	WT				10/16/18	1135		7	3			4					✓	✓	✓	✓		013
2	MW-13						1225		7	3			4					✓	✓	✓	✓		014
3	MW-14						1255		7	3			4					✓	✓	✓	✓		015
4	MW-7						1345		7	3			4					✓	✓	✓	✓		016
5	MW-3						1420		7	3			4					✓	✓	✓	✓		017
6	Recovery Well C						1455		7	3			4					✓	✓	✓	✓		018
7	MW-6						1545		7	3			4					✓	✓	✓	✓		019
8																							
9																							
10						DJA 10/16/18																	
11																							
12																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	David Anderson Pace	10/16/18	1620		10/16/18	1620	5.4	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: David Anderson
SIGNATURE of SAMPLER: David Anderson
DATE Signed (MM/DD/YY): 10/16/18

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

Pace Analytical	Document Name: **Sample Condition Upon Receipt Form**	Document Revised: 02May2018 Page 1 of 2
	Document No.: **F-MN-L-213-rev.23**	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: Landmark Environmental

Project #: **WO#: 10451928**

PM: JMA **Due Date: 10/23/18**

CLIENT: PASI-MNFLD

Courier: ☐Fed Ex ☐UPS ☐USPS ☐Client ☐Commercial ☑Pace ☐SpeeDee ☐Other:_____

Tracking Number: _____

Custody Seal on Cooler/Box Present? ☐Yes ☑No **Seals Intact?** ☐Yes ☑No **Optional:** Proj. Due Date: Proj. Name:

Packing Material: ☑Bubble Wrap ☑Bubble Bags ☐None ☐Other:_____ **Temp Blank?** ☐Yes ☑No

Thermometer Used: ☑G87A9170600254 ☐G87A9155100842 **Type of Ice:** ☑Wet ☐Blue ☐None ☐Dry ☐Melted

Cooler Temp Read (°C): 5.2 **Cooler Temp Corrected (°C):** 5.4 **Biological Tissue Frozen?** ☐Yes ☐No ☑N/A

Temp should be above freezing to 6°C **Correction Factor:** +0.2 **Date and Initials of Person Examining Contents:** 10/16/18 CS

USDA Regulated Soil (☑ N/A, water sample)

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA. MS, NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)? ☐Yes ☐No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐Yes ☐No

If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present?	☑Yes	☐No		1.
Chain of Custody Filled Out?	☑Yes	☐No		2.
Chain of Custody Relinquished?	☑Yes	☐No		3.
Sampler Name and/or Signature on COC?	☑Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time?	☑Yes	☐No		5.
Short Hold Time Analysis (<72 hr)?	☐Yes	☑No		6.
Rush Turn Around Time Requested?	☐Yes	☑No		7.
Sufficient Volume?	☑Yes	☐No		8.
Correct Containers Used? -Pace Containers Used?	☑Yes ☑Yes	☐No ☐No		9.
Containers Intact?	☑Yes	☐No		10.
Filtered Volume Received for Dissolved Tests?	☐Yes	☐No	☑N/A	11. Note if sediment is visible in the dissolved container
Is sufficient information available to reconcile the samples to the COC? Matrix: WT	☑Yes	☐No		12.
All containers needing acid/base preservation have been checked? All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, <2pH, NaOH >9 Sulfide, NaOH>12 Cyanide) Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxin/PFAS	☐Yes ☐Yes ☑Yes	☐No ☐No ☐No	☑N/A ☑N/A ☐N/A	13. ☐HNO_3 ☐H_2SO_4 ☐NaOH Positive for Res. Chlorine? Y N Sample # Initial when completed: Lot # of added preservative:
Headspace in VOA Vials (>6mm)?	☐Yes	☑No	☐N/A	14. See exceptions
Trip Blank Present?	☐Yes	☐No	☑N/A	15.
Trip Blank Custody Seals Present?	☐Yes	☐No	☑N/A	
Pace Trip Blank Lot # (if purchased): NA				

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐Yes ☐No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager Review: _____ **Date:** 10/17/2018

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers).

label: Kong

Pace Analytical	Document Name: **Headspace Exception**	Document Revised: 06Nov2017 Page 1 of 1
	Document No.: **F-MN-C-276-Rev.00**	Issuing Authority: Pace Minnesota Quality Office

Sample ID	Headspace > 6mm	Headspace < 6mm	No Headspace	Total Vials
Deep Production	0	2	2	4
PC-1	0	0	4	4
PC-2	0	0	4	4
Well B	0	0	4	4
mw-10	0	0	4	4
mw-12	0	0	4	4
mw-1	0	0	4	4
mw-4	0	0	4	4
mw-15	0	0	4	4
mw-8	0	0	4	4
mw-2	0	0		4
mw-9	0	0	4	4

Pace Analytical	Document Name: **Headspace Exception**	Document Revised: 06Nov2017 Page 1 of 1
	Document No.: **F-MN-C-276-Rev.00**	Issuing Authority: Pace Minnesota Quality Office

Sample ID	Headspace > 6mm	Headspace < 6mm	No Headspace	Total Vials
MW-5	0	0	4	4
MW-13	0	0	4	4
MW-14	0	0	4	4
MW-7	0	0	4	4
MW-3	0	0	4	4
Well-C	0	0	4	4
MW-6	0	0	4	4

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

October 26, 2018

Pace Analytical - Minnesota

Sample Delivery Group:	L1036830
Samples Received:	10/20/2018
Project Number:	10451928
Description:	18-01251 Landmark-KurtMfg 2H18

Report To: Jennifer Anderson
1700 Elm Street Suite 200
Minneapolis, MN 55414

Entire Report Reviewed By: Nancy F. McLain

Nancy McLain
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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DEEP PRODUCTION WELL L1036830-01 GW

Collected by	Collected date/time	Received date/time
	10/15/18 09:55	10/20/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184220	1	10/21/18 17:18	10/21/18 17:18	ACG

PC-1 L1036830-02 GW

Collected by	Collected date/time	Received date/time
	10/15/18 10:45	10/20/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184220	1	10/21/18 17:37	10/21/18 17:37	ACG

PC-2 L1036830-03 GW

Collected by	Collected date/time	Received date/time
	10/15/18 11:35	10/20/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184220	1	10/21/18 17:56	10/21/18 17:56	ACG

WELL B L1036830-04 GW

Collected by	Collected date/time	Received date/time
	10/15/18 12:30	10/20/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184220	1	10/21/18 18:15	10/21/18 18:15	ACG

MW-10 L1036830-05 GW

Collected by	Collected date/time	Received date/time
	10/15/18 13:20	10/20/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184220	1	10/21/18 18:35	10/21/18 18:35	ACG

MW-12 L1036830-06 GW

Collected by	Collected date/time	Received date/time
	10/15/18 14:10	10/20/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184220	1	10/21/18 18:54	10/21/18 18:54	ACG

MW-1 L1036830-07 GW

Collected by	Collected date/time	Received date/time
	10/15/18 14:45	10/20/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184220	1	10/21/18 19:12	10/21/18 19:12	ACG

MW-4 L1036830-08 GW

Collected by	Collected date/time	Received date/time
	10/15/18 15:20	10/20/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184255	1	10/21/18 19:07	10/21/18 19:07	LRL

MW-15 L1036830-09 GW

Collected by	Collected date/time	Received date/time
	10/16/18 09:00	10/20/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184255	1	10/21/18 19:29	10/21/18 19:29	LRL

MW-8 L1036830-10 GW

Collected by	Collected date/time	Received date/time
	10/16/18 09:45	10/20/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184255	1	10/21/18 19:50	10/21/18 19:50	LRL

MW-2 L1036830-11 GW

Collected by	Collected date/time	Received date/time
	10/16/18 10:15	10/20/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184255	1	10/21/18 20:12	10/21/18 20:12	LRL

MW-9 L1036830-12 GW

Collected by	Collected date/time	Received date/time
	10/16/18 10:55	10/20/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184255	1	10/21/18 20:34	10/21/18 20:34	LRL

MW-5 L1036830-13 GW

Collected by	Collected date/time	Received date/time
	10/16/18 11:35	10/20/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184255	1	10/21/18 20:56	10/21/18 20:56	LRL

MW-13 L1036830-14 GW

Collected by	Collected date/time	Received date/time
	10/16/18 12:25	10/20/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184255	1	10/21/18 21:18	10/21/18 21:18	LRL

MW-14 L1036830-15 GW

Collected by	Collected date/time	Received date/time
	10/16/18 12:55	10/20/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184255	1	10/21/18 22:02	10/21/18 22:02	LRL

MW-7 L1036830-16 GW

Collected by	Collected date/time	Received date/time
	10/16/18 13:45	10/20/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184255	1	10/21/18 22:24	10/21/18 22:24	LRL

MW-3 L1036830-17 GW

Collected by	Collected date/time	Received date/time
	10/16/18 14:20	10/20/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184255	1	10/21/18 22:45	10/21/18 22:45	LRL

RECOVERY WELL C L1036830-18 GW

Collected by	Collected date/time	Received date/time
	10/16/18 14:55	10/20/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184255	1	10/21/18 23:07	10/21/18 23:07	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184516	10	10/22/18 16:54	10/22/18 16:54	JHH

MW-6 L1036830-19 GW

Collected by	Collected date/time	Received date/time
	10/16/18 15:45	10/20/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184255	1	10/21/18 23:29	10/21/18 23:29	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184516	1	10/22/18 16:34	10/22/18 16:34	JHH

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Nancy F. McLain

Nancy McLain
Project Manager

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		10.0	50.0	1	10/21/2018 17:18	WG1184220
Allyl chloride	U		1.70	5.00	1	10/21/2018 17:18	WG1184220
Benzene	U		0.331	1.00	1	10/21/2018 17:18	WG1184220
Bromobenzene	U		0.352	1.00	1	10/21/2018 17:18	WG1184220
Bromochloromethane	U		0.520	5.00	1	10/21/2018 17:18	WG1184220
Bromodichloromethane	U		0.380	1.00	1	10/21/2018 17:18	WG1184220
Bromoform	U		0.469	1.00	1	10/21/2018 17:18	WG1184220
Bromomethane	U		0.866	5.00	1	10/21/2018 17:18	WG1184220
n-Butylbenzene	U		0.361	1.00	1	10/21/2018 17:18	WG1184220
sec-Butylbenzene	U		0.365	1.00	1	10/21/2018 17:18	WG1184220
tert-Butylbenzene	U		0.399	1.00	1	10/21/2018 17:18	WG1184220
Carbon tetrachloride	U		0.379	1.00	1	10/21/2018 17:18	WG1184220
Chlorobenzene	U		0.348	1.00	1	10/21/2018 17:18	WG1184220
Chlorodibromomethane	U		0.327	1.00	1	10/21/2018 17:18	WG1184220
Chloroethane	U		0.453	5.00	1	10/21/2018 17:18	WG1184220
Chloroform	U		0.324	5.00	1	10/21/2018 17:18	WG1184220
Chloromethane	U		0.276	2.50	1	10/21/2018 17:18	WG1184220
2-Chlorotoluene	U		0.375	1.00	1	10/21/2018 17:18	WG1184220
4-Chlorotoluene	U		0.351	1.00	1	10/21/2018 17:18	WG1184220
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/21/2018 17:18	WG1184220
1,2-Dibromoethane	U		0.381	1.00	1	10/21/2018 17:18	WG1184220
Dibromomethane	U		0.346	1.00	1	10/21/2018 17:18	WG1184220
1,2-Dichlorobenzene	U		0.349	1.00	1	10/21/2018 17:18	WG1184220
1,3-Dichlorobenzene	U		0.220	1.00	1	10/21/2018 17:18	WG1184220
1,4-Dichlorobenzene	U		0.274	1.00	1	10/21/2018 17:18	WG1184220
Dichlorodifluoromethane	U		0.551	5.00	1	10/21/2018 17:18	WG1184220
Dichlorofluoromethane	U		0.302	5.00	1	10/21/2018 17:18	WG1184220
1,1-Dichloroethane	U		0.259	1.00	1	10/21/2018 17:18	WG1184220
1,2-Dichloroethane	U		0.361	1.00	1	10/21/2018 17:18	WG1184220
1,1-Dichloroethene	U		0.398	1.00	1	10/21/2018 17:18	WG1184220
cis-1,2-Dichloroethene	58.1		0.260	1.00	1	10/21/2018 17:18	WG1184220
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/21/2018 17:18	WG1184220
1,2-Dichloropropane	U		0.306	1.00	1	10/21/2018 17:18	WG1184220
1,1-Dichloropropene	U		0.352	1.00	1	10/21/2018 17:18	WG1184220
1,3-Dichloropropane	U		0.366	1.00	1	10/21/2018 17:18	WG1184220
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/21/2018 17:18	WG1184220
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/21/2018 17:18	WG1184220
2,2-Dichloropropane	U		0.321	1.00	1	10/21/2018 17:18	WG1184220
Ethylbenzene	U		0.384	1.00	1	10/21/2018 17:18	WG1184220
Ethyl ether	U		0.389	1.00	1	10/21/2018 17:18	WG1184220
Hexachloro-1,3-butadiene	U		0.256	1.00	1	10/21/2018 17:18	WG1184220
Isopropylbenzene	U		0.326	1.00	1	10/21/2018 17:18	WG1184220
p-Isopropyltoluene	U		0.350	1.00	1	10/21/2018 17:18	WG1184220
2-Butanone (MEK)	U		3.93	10.0	1	10/21/2018 17:18	WG1184220
Methylene Chloride	U		1.00	5.00	1	10/21/2018 17:18	WG1184220
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/21/2018 17:18	WG1184220
Methyl tert-butyl ether	U		0.367	1.00	1	10/21/2018 17:18	WG1184220
Naphthalene	U		1.00	5.00	1	10/21/2018 17:18	WG1184220
n-Propylbenzene	U		0.349	1.00	1	10/21/2018 17:18	WG1184220
Styrene	U		0.307	1.00	1	10/21/2018 17:18	WG1184220
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/21/2018 17:18	WG1184220
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/21/2018 17:18	WG1184220
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	10/21/2018 17:18	WG1184220
Tetrachloroethene	2.10		0.372	1.00	1	10/21/2018 17:18	WG1184220
Tetrahydrofuran	U		1.82	5.00	1	10/21/2018 17:18	WG1184220
Toluene	U		0.412	1.00	1	10/21/2018 17:18	WG1184220

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2,3-Trichlorobenzene	U		0.230	1.00	1	10/21/2018 17:18	WG1184220
1,2,4-Trichlorobenzene	U		0.355	1.00	1	10/21/2018 17:18	WG1184220
1,1,1-Trichloroethane	U		0.319	1.00	1	10/21/2018 17:18	WG1184220
1,1,2-Trichloroethane	U		0.383	1.00	1	10/21/2018 17:18	WG1184220
Trichloroethene	8.56		0.398	1.00	1	10/21/2018 17:18	WG1184220
Trichlorofluoromethane	U		1.20	5.00	1	10/21/2018 17:18	WG1184220
1,2,3-Trichloropropane	U		0.807	2.50	1	10/21/2018 17:18	WG1184220
1,2,4-Trimethylbenzene	U		0.373	1.00	1	10/21/2018 17:18	WG1184220
1,2,3-Trimethylbenzene	U		0.321	1.00	1	10/21/2018 17:18	WG1184220
1,3,5-Trimethylbenzene	U		0.387	1.00	1	10/21/2018 17:18	WG1184220
Vinyl chloride	U		0.259	1.00	1	10/21/2018 17:18	WG1184220
Xylenes, Total	U		1.06	3.00	1	10/21/2018 17:18	WG1184220
(S) Toluene-d8	*102*			*80.0-120*		*10/21/2018 17:18*	WG1184220
(S) Dibromofluoromethane	*90.6*			*75.0-120*		*10/21/2018 17:18*	WG1184220
(S) α,α,α-Trifluorotoluene	*102*			*80.0-120*		*10/21/2018 17:18*	WG1184220
(S) 4-Bromofluorobenzene	*94.9*			*77.0-126*		*10/21/2018 17:18*	WG1184220

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		10.0	50.0	1	10/21/2018 17:37	WG1184220
Allyl chloride	U		1.70	5.00	1	10/21/2018 17:37	WG1184220
Benzene	U		0.331	1.00	1	10/21/2018 17:37	WG1184220
Bromobenzene	U		0.352	1.00	1	10/21/2018 17:37	WG1184220
Bromochloromethane	U		0.520	5.00	1	10/21/2018 17:37	WG1184220
Bromodichloromethane	U		0.380	1.00	1	10/21/2018 17:37	WG1184220
Bromoform	U		0.469	1.00	1	10/21/2018 17:37	WG1184220
Bromomethane	U		0.866	5.00	1	10/21/2018 17:37	WG1184220
n-Butylbenzene	U		0.361	1.00	1	10/21/2018 17:37	WG1184220
sec-Butylbenzene	U		0.365	1.00	1	10/21/2018 17:37	WG1184220
tert-Butylbenzene	U		0.399	1.00	1	10/21/2018 17:37	WG1184220
Carbon tetrachloride	U		0.379	1.00	1	10/21/2018 17:37	WG1184220
Chlorobenzene	U		0.348	1.00	1	10/21/2018 17:37	WG1184220
Chlorodibromomethane	U		0.327	1.00	1	10/21/2018 17:37	WG1184220
Chloroethane	U		0.453	5.00	1	10/21/2018 17:37	WG1184220
Chloroform	U		0.324	5.00	1	10/21/2018 17:37	WG1184220
Chloromethane	U		0.276	2.50	1	10/21/2018 17:37	WG1184220
2-Chlorotoluene	U		0.375	1.00	1	10/21/2018 17:37	WG1184220
4-Chlorotoluene	U		0.351	1.00	1	10/21/2018 17:37	WG1184220
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/21/2018 17:37	WG1184220
1,2-Dibromoethane	U		0.381	1.00	1	10/21/2018 17:37	WG1184220
Dibromomethane	U		0.346	1.00	1	10/21/2018 17:37	WG1184220
1,2-Dichlorobenzene	U		0.349	1.00	1	10/21/2018 17:37	WG1184220
1,3-Dichlorobenzene	U		0.220	1.00	1	10/21/2018 17:37	WG1184220
1,4-Dichlorobenzene	U		0.274	1.00	1	10/21/2018 17:37	WG1184220
Dichlorodifluoromethane	U		0.551	5.00	1	10/21/2018 17:37	WG1184220
Dichlorofluoromethane	U		0.302	5.00	1	10/21/2018 17:37	WG1184220
1,1-Dichloroethane	U		0.259	1.00	1	10/21/2018 17:37	WG1184220
1,2-Dichloroethane	U		0.361	1.00	1	10/21/2018 17:37	WG1184220
1,1-Dichloroethene	U		0.398	1.00	1	10/21/2018 17:37	WG1184220
cis-1,2-Dichloroethene	U		0.260	1.00	1	10/21/2018 17:37	WG1184220
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/21/2018 17:37	WG1184220
1,2-Dichloropropane	U		0.306	1.00	1	10/21/2018 17:37	WG1184220
1,1-Dichloropropene	U		0.352	1.00	1	10/21/2018 17:37	WG1184220
1,3-Dichloropropane	U		0.366	1.00	1	10/21/2018 17:37	WG1184220
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/21/2018 17:37	WG1184220
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/21/2018 17:37	WG1184220
2,2-Dichloropropane	U		0.321	1.00	1	10/21/2018 17:37	WG1184220
Ethylbenzene	U		0.384	1.00	1	10/21/2018 17:37	WG1184220
Ethyl ether	U		0.389	1.00	1	10/21/2018 17:37	WG1184220
Hexachloro-1,3-butadiene	U		0.256	1.00	1	10/21/2018 17:37	WG1184220
Isopropylbenzene	U		0.326	1.00	1	10/21/2018 17:37	WG1184220
p-Isopropyltoluene	U		0.350	1.00	1	10/21/2018 17:37	WG1184220
2-Butanone (MEK)	U		3.93	10.0	1	10/21/2018 17:37	WG1184220
Methylene Chloride	U		1.00	5.00	1	10/21/2018 17:37	WG1184220
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/21/2018 17:37	WG1184220
Methyl tert-butyl ether	U		0.367	1.00	1	10/21/2018 17:37	WG1184220
Naphthalene	U		1.00	5.00	1	10/21/2018 17:37	WG1184220
n-Propylbenzene	U		0.349	1.00	1	10/21/2018 17:37	WG1184220
Styrene	U		0.307	1.00	1	10/21/2018 17:37	WG1184220
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/21/2018 17:37	WG1184220
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/21/2018 17:37	WG1184220
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	10/21/2018 17:37	WG1184220
Tetrachloroethene	U		0.372	1.00	1	10/21/2018 17:37	WG1184220
Tetrahydrofuran	U		1.82	5.00	1	10/21/2018 17:37	WG1184220
Toluene	U		0.412	1.00	1	10/21/2018 17:37	WG1184220

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2,3-Trichlorobenzene	U		0.230	1.00	1	10/21/2018 17:37	WG1184220
1,2,4-Trichlorobenzene	U		0.355	1.00	1	10/21/2018 17:37	WG1184220
1,1,1-Trichloroethane	U		0.319	1.00	1	10/21/2018 17:37	WG1184220
1,1,2-Trichloroethane	U		0.383	1.00	1	10/21/2018 17:37	WG1184220
Trichloroethene	U		0.398	1.00	1	10/21/2018 17:37	WG1184220
Trichlorofluoromethane	U		1.20	5.00	1	10/21/2018 17:37	WG1184220
1,2,3-Trichloropropane	U		0.807	2.50	1	10/21/2018 17:37	WG1184220
1,2,4-Trimethylbenzene	U		0.373	1.00	1	10/21/2018 17:37	WG1184220
1,2,3-Trimethylbenzene	U		0.321	1.00	1	10/21/2018 17:37	WG1184220
1,3,5-Trimethylbenzene	U		0.387	1.00	1	10/21/2018 17:37	WG1184220
Vinyl chloride	U		0.259	1.00	1	10/21/2018 17:37	WG1184220
Xylenes, Total	U		1.06	3.00	1	10/21/2018 17:37	WG1184220
(S) Toluene-d8	*101*			*80.0-120*		*10/21/2018 17:37*	WG1184220
(S) Dibromofluoromethane	*91.5*			*75.0-120*		*10/21/2018 17:37*	WG1184220
(S) α,α,α-Trifluorotoluene	*103*			*80.0-120*		*10/21/2018 17:37*	WG1184220
(S) 4-Bromofluorobenzene	*97.0*			*77.0-126*		*10/21/2018 17:37*	WG1184220

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	10/21/2018 17:56	WG1184220
Allyl chloride	U		1.70	5.00	1	10/21/2018 17:56	WG1184220
Benzene	U		0.331	1.00	1	10/21/2018 17:56	WG1184220
Bromobenzene	U		0.352	1.00	1	10/21/2018 17:56	WG1184220
Bromochloromethane	U		0.520	5.00	1	10/21/2018 17:56	WG1184220
Bromodichloromethane	U		0.380	1.00	1	10/21/2018 17:56	WG1184220
Bromoform	U		0.469	1.00	1	10/21/2018 17:56	WG1184220
Bromomethane	U		0.866	5.00	1	10/21/2018 17:56	WG1184220
n-Butylbenzene	U		0.361	1.00	1	10/21/2018 17:56	WG1184220
sec-Butylbenzene	U		0.365	1.00	1	10/21/2018 17:56	WG1184220
tert-Butylbenzene	U		0.399	1.00	1	10/21/2018 17:56	WG1184220
Carbon tetrachloride	U		0.379	1.00	1	10/21/2018 17:56	WG1184220
Chlorobenzene	U		0.348	1.00	1	10/21/2018 17:56	WG1184220
Chlorodibromomethane	U		0.327	1.00	1	10/21/2018 17:56	WG1184220
Chloroethane	U		0.453	5.00	1	10/21/2018 17:56	WG1184220
Chloroform	U		0.324	5.00	1	10/21/2018 17:56	WG1184220
Chloromethane	U		0.276	2.50	1	10/21/2018 17:56	WG1184220
2-Chlorotoluene	U		0.375	1.00	1	10/21/2018 17:56	WG1184220
4-Chlorotoluene	U		0.351	1.00	1	10/21/2018 17:56	WG1184220
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/21/2018 17:56	WG1184220
1,2-Dibromoethane	U		0.381	1.00	1	10/21/2018 17:56	WG1184220
Dibromomethane	U		0.346	1.00	1	10/21/2018 17:56	WG1184220
1,2-Dichlorobenzene	U		0.349	1.00	1	10/21/2018 17:56	WG1184220
1,3-Dichlorobenzene	U		0.220	1.00	1	10/21/2018 17:56	WG1184220
1,4-Dichlorobenzene	U		0.274	1.00	1	10/21/2018 17:56	WG1184220
Dichlorodifluoromethane	U		0.551	5.00	1	10/21/2018 17:56	WG1184220
Dichlorofluoromethane	U		0.302	5.00	1	10/21/2018 17:56	WG1184220
1,1-Dichloroethane	U		0.259	1.00	1	10/21/2018 17:56	WG1184220
1,2-Dichloroethane	U		0.361	1.00	1	10/21/2018 17:56	WG1184220
1,1-Dichloroethene	U		0.398	1.00	1	10/21/2018 17:56	WG1184220
cis-1,2-Dichloroethene	0.482	J	0.260	1.00	1	10/21/2018 17:56	WG1184220
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/21/2018 17:56	WG1184220
1,2-Dichloropropane	U		0.306	1.00	1	10/21/2018 17:56	WG1184220
1,1-Dichloropropene	U		0.352	1.00	1	10/21/2018 17:56	WG1184220
1,3-Dichloropropane	U		0.366	1.00	1	10/21/2018 17:56	WG1184220
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/21/2018 17:56	WG1184220
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/21/2018 17:56	WG1184220
2,2-Dichloropropane	U		0.321	1.00	1	10/21/2018 17:56	WG1184220
Ethylbenzene	U		0.384	1.00	1	10/21/2018 17:56	WG1184220
Ethyl ether	U		0.389	1.00	1	10/21/2018 17:56	WG1184220
Hexachloro-1,3-butadiene	U		0.256	1.00	1	10/21/2018 17:56	WG1184220
Isopropylbenzene	U		0.326	1.00	1	10/21/2018 17:56	WG1184220
p-Isopropyltoluene	U		0.350	1.00	1	10/21/2018 17:56	WG1184220
2-Butanone (MEK)	U		3.93	10.0	1	10/21/2018 17:56	WG1184220
Methylene Chloride	U		1.00	5.00	1	10/21/2018 17:56	WG1184220
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/21/2018 17:56	WG1184220
Methyl tert-butyl ether	U		0.367	1.00	1	10/21/2018 17:56	WG1184220
Naphthalene	U		1.00	5.00	1	10/21/2018 17:56	WG1184220
n-Propylbenzene	U		0.349	1.00	1	10/21/2018 17:56	WG1184220
Styrene	U		0.307	1.00	1	10/21/2018 17:56	WG1184220
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/21/2018 17:56	WG1184220
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/21/2018 17:56	WG1184220
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	10/21/2018 17:56	WG1184220
Tetrachloroethene	2.93		0.372	1.00	1	10/21/2018 17:56	WG1184220
Tetrahydrofuran	U		1.82	5.00	1	10/21/2018 17:56	WG1184220
Toluene	U		0.412	1.00	1	10/21/2018 17:56	WG1184220

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2,3-Trichlorobenzene	U		0.230	1.00	1	10/21/2018 17:56	WG1184220
1,2,4-Trichlorobenzene	U		0.355	1.00	1	10/21/2018 17:56	WG1184220
1,1,1-Trichloroethane	U		0.319	1.00	1	10/21/2018 17:56	WG1184220
1,1,2-Trichloroethane	U		0.383	1.00	1	10/21/2018 17:56	WG1184220
Trichloroethene	0.900	J	0.398	1.00	1	10/21/2018 17:56	WG1184220
Trichlorofluoromethane	U		1.20	5.00	1	10/21/2018 17:56	WG1184220
1,2,3-Trichloropropane	U		0.807	2.50	1	10/21/2018 17:56	WG1184220
1,2,4-Trimethylbenzene	U		0.373	1.00	1	10/21/2018 17:56	WG1184220
1,2,3-Trimethylbenzene	U		0.321	1.00	1	10/21/2018 17:56	WG1184220
1,3,5-Trimethylbenzene	U		0.387	1.00	1	10/21/2018 17:56	WG1184220
Vinyl chloride	U		0.259	1.00	1	10/21/2018 17:56	WG1184220
Xylenes, Total	U		1.06	3.00	1	10/21/2018 17:56	WG1184220
(S) Toluene-d8	*104*			*80.0-120*		*10/21/2018 17:56*	WG1184220
(S) Dibromofluoromethane	*91.8*			*75.0-120*		*10/21/2018 17:56*	WG1184220
(S) α,α,α-Trifluorotoluene	*104*			*80.0-120*		*10/21/2018 17:56*	WG1184220
(S) 4-Bromofluorobenzene	*95.9*			*77.0-126*		*10/21/2018 17:56*	WG1184220

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		10.0	50.0	1	10/21/2018 18:15	WG1184220
Allyl chloride	U		1.70	5.00	1	10/21/2018 18:15	WG1184220
Benzene	U		0.331	1.00	1	10/21/2018 18:15	WG1184220
Bromobenzene	U		0.352	1.00	1	10/21/2018 18:15	WG1184220
Bromochloromethane	U		0.520	5.00	1	10/21/2018 18:15	WG1184220
Bromodichloromethane	U		0.380	1.00	1	10/21/2018 18:15	WG1184220
Bromoform	U		0.469	1.00	1	10/21/2018 18:15	WG1184220
Bromomethane	U		0.866	5.00	1	10/21/2018 18:15	WG1184220
n-Butylbenzene	U		0.361	1.00	1	10/21/2018 18:15	WG1184220
sec-Butylbenzene	U		0.365	1.00	1	10/21/2018 18:15	WG1184220
tert-Butylbenzene	U		0.399	1.00	1	10/21/2018 18:15	WG1184220
Carbon tetrachloride	U		0.379	1.00	1	10/21/2018 18:15	WG1184220
Chlorobenzene	U		0.348	1.00	1	10/21/2018 18:15	WG1184220
Chlorodibromomethane	U		0.327	1.00	1	10/21/2018 18:15	WG1184220
Chloroethane	U		0.453	5.00	1	10/21/2018 18:15	WG1184220
Chloroform	U		0.324	5.00	1	10/21/2018 18:15	WG1184220
Chloromethane	U		0.276	2.50	1	10/21/2018 18:15	WG1184220
2-Chlorotoluene	U		0.375	1.00	1	10/21/2018 18:15	WG1184220
4-Chlorotoluene	U		0.351	1.00	1	10/21/2018 18:15	WG1184220
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/21/2018 18:15	WG1184220
1,2-Dibromoethane	U		0.381	1.00	1	10/21/2018 18:15	WG1184220
Dibromomethane	U		0.346	1.00	1	10/21/2018 18:15	WG1184220
1,2-Dichlorobenzene	U		0.349	1.00	1	10/21/2018 18:15	WG1184220
1,3-Dichlorobenzene	U		0.220	1.00	1	10/21/2018 18:15	WG1184220
1,4-Dichlorobenzene	U		0.274	1.00	1	10/21/2018 18:15	WG1184220
Dichlorodifluoromethane	U		0.551	5.00	1	10/21/2018 18:15	WG1184220
Dichlorofluoromethane	U		0.302	5.00	1	10/21/2018 18:15	WG1184220
1,1-Dichloroethane	2.69		0.259	1.00	1	10/21/2018 18:15	WG1184220
1,2-Dichloroethane	U		0.361	1.00	1	10/21/2018 18:15	WG1184220
1,1-Dichloroethene	U		0.398	1.00	1	10/21/2018 18:15	WG1184220
cis-1,2-Dichloroethene	71.7		0.260	1.00	1	10/21/2018 18:15	WG1184220
trans-1,2-Dichloroethene	1.45		0.396	1.00	1	10/21/2018 18:15	WG1184220
1,2-Dichloropropane	U		0.306	1.00	1	10/21/2018 18:15	WG1184220
1,1-Dichloropropene	U		0.352	1.00	1	10/21/2018 18:15	WG1184220
1,3-Dichloropropane	U		0.366	1.00	1	10/21/2018 18:15	WG1184220
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/21/2018 18:15	WG1184220
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/21/2018 18:15	WG1184220
2,2-Dichloropropane	U		0.321	1.00	1	10/21/2018 18:15	WG1184220
Ethylbenzene	U		0.384	1.00	1	10/21/2018 18:15	WG1184220
Ethyl ether	U		0.389	1.00	1	10/21/2018 18:15	WG1184220
Hexachloro-1,3-butadiene	U		0.256	1.00	1	10/21/2018 18:15	WG1184220
Isopropylbenzene	U		0.326	1.00	1	10/21/2018 18:15	WG1184220
p-Isopropyltoluene	U		0.350	1.00	1	10/21/2018 18:15	WG1184220
2-Butanone (MEK)	U		3.93	10.0	1	10/21/2018 18:15	WG1184220
Methylene Chloride	U		1.00	5.00	1	10/21/2018 18:15	WG1184220
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/21/2018 18:15	WG1184220
Methyl tert-butyl ether	U		0.367	1.00	1	10/21/2018 18:15	WG1184220
Naphthalene	U		1.00	5.00	1	10/21/2018 18:15	WG1184220
n-Propylbenzene	U		0.349	1.00	1	10/21/2018 18:15	WG1184220
Styrene	U		0.307	1.00	1	10/21/2018 18:15	WG1184220
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/21/2018 18:15	WG1184220
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/21/2018 18:15	WG1184220
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	10/21/2018 18:15	WG1184220
Tetrachloroethene	U		0.372	1.00	1	10/21/2018 18:15	WG1184220
Tetrahydrofuran	U		1.82	5.00	1	10/21/2018 18:15	WG1184220
Toluene	U		0.412	1.00	1	10/21/2018 18:15	WG1184220

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2,3-Trichlorobenzene	U		0.230	1.00	1	10/21/2018 18:15	WG1184220
1,2,4-Trichlorobenzene	U		0.355	1.00	1	10/21/2018 18:15	WG1184220
1,1,1-Trichloroethane	U		0.319	1.00	1	10/21/2018 18:15	WG1184220
1,1,2-Trichloroethane	U		0.383	1.00	1	10/21/2018 18:15	WG1184220
Trichloroethene	0.536	J	0.398	1.00	1	10/21/2018 18:15	WG1184220
Trichlorofluoromethane	U		1.20	5.00	1	10/21/2018 18:15	WG1184220
1,2,3-Trichloropropane	U		0.807	2.50	1	10/21/2018 18:15	WG1184220
1,2,4-Trimethylbenzene	U		0.373	1.00	1	10/21/2018 18:15	WG1184220
1,2,3-Trimethylbenzene	U		0.321	1.00	1	10/21/2018 18:15	WG1184220
1,3,5-Trimethylbenzene	U		0.387	1.00	1	10/21/2018 18:15	WG1184220
Vinyl chloride	4.80		0.259	1.00	1	10/21/2018 18:15	WG1184220
Xylenes, Total	U		1.06	3.00	1	10/21/2018 18:15	WG1184220
(S) Toluene-d8	*103*			*80.0-120*		*10/21/2018 18:15*	WG1184220
(S) Dibromofluoromethane	*91.6*			*75.0-120*		*10/21/2018 18:15*	WG1184220
(S) a,a,a-Trifluorotoluene	*104*			*80.0-120*		*10/21/2018 18:15*	WG1184220
(S) 4-Bromofluorobenzene	*97.4*			*77.0-126*		*10/21/2018 18:15*	WG1184220

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		10.0	50.0	1	10/21/2018 18:35	WG1184220
Allyl chloride	U		1.70	5.00	1	10/21/2018 18:35	WG1184220
Benzene	U		0.331	1.00	1	10/21/2018 18:35	WG1184220
Bromobenzene	U		0.352	1.00	1	10/21/2018 18:35	WG1184220
Bromochloromethane	U		0.520	5.00	1	10/21/2018 18:35	WG1184220
Bromodichloromethane	U		0.380	1.00	1	10/21/2018 18:35	WG1184220
Bromoform	U		0.469	1.00	1	10/21/2018 18:35	WG1184220
Bromomethane	U		0.866	5.00	1	10/21/2018 18:35	WG1184220
n-Butylbenzene	U		0.361	1.00	1	10/21/2018 18:35	WG1184220
sec-Butylbenzene	U		0.365	1.00	1	10/21/2018 18:35	WG1184220
tert-Butylbenzene	U		0.399	1.00	1	10/21/2018 18:35	WG1184220
Carbon tetrachloride	U		0.379	1.00	1	10/21/2018 18:35	WG1184220
Chlorobenzene	U		0.348	1.00	1	10/21/2018 18:35	WG1184220
Chlorodibromomethane	U		0.327	1.00	1	10/21/2018 18:35	WG1184220
Chloroethane	U		0.453	5.00	1	10/21/2018 18:35	WG1184220
Chloroform	U		0.324	5.00	1	10/21/2018 18:35	WG1184220
Chloromethane	U		0.276	2.50	1	10/21/2018 18:35	WG1184220
2-Chlorotoluene	U		0.375	1.00	1	10/21/2018 18:35	WG1184220
4-Chlorotoluene	U		0.351	1.00	1	10/21/2018 18:35	WG1184220
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/21/2018 18:35	WG1184220
1,2-Dibromoethane	U		0.381	1.00	1	10/21/2018 18:35	WG1184220
Dibromomethane	U		0.346	1.00	1	10/21/2018 18:35	WG1184220
1,2-Dichlorobenzene	U		0.349	1.00	1	10/21/2018 18:35	WG1184220
1,3-Dichlorobenzene	U		0.220	1.00	1	10/21/2018 18:35	WG1184220
1,4-Dichlorobenzene	U		0.274	1.00	1	10/21/2018 18:35	WG1184220
Dichlorodifluoromethane	U		0.551	5.00	1	10/21/2018 18:35	WG1184220
Dichlorofluoromethane	U		0.302	5.00	1	10/21/2018 18:35	WG1184220
1,1-Dichloroethane	U		0.259	1.00	1	10/21/2018 18:35	WG1184220
1,2-Dichloroethane	U		0.361	1.00	1	10/21/2018 18:35	WG1184220
1,1-Dichloroethene	U		0.398	1.00	1	10/21/2018 18:35	WG1184220
cis-1,2-Dichloroethene	U		0.260	1.00	1	10/21/2018 18:35	WG1184220
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/21/2018 18:35	WG1184220
1,2-Dichloropropane	U		0.306	1.00	1	10/21/2018 18:35	WG1184220
1,1-Dichloropropene	U		0.352	1.00	1	10/21/2018 18:35	WG1184220
1,3-Dichloropropane	U		0.366	1.00	1	10/21/2018 18:35	WG1184220
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/21/2018 18:35	WG1184220
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/21/2018 18:35	WG1184220
2,2-Dichloropropane	U		0.321	1.00	1	10/21/2018 18:35	WG1184220
Ethylbenzene	U		0.384	1.00	1	10/21/2018 18:35	WG1184220
Ethyl ether	U		0.389	1.00	1	10/21/2018 18:35	WG1184220
Hexachloro-1,3-butadiene	U		0.256	1.00	1	10/21/2018 18:35	WG1184220
Isopropylbenzene	U		0.326	1.00	1	10/21/2018 18:35	WG1184220
p-Isopropyltoluene	U		0.350	1.00	1	10/21/2018 18:35	WG1184220
2-Butanone (MEK)	U		3.93	10.0	1	10/21/2018 18:35	WG1184220
Methylene Chloride	U		1.00	5.00	1	10/21/2018 18:35	WG1184220
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/21/2018 18:35	WG1184220
Methyl tert-butyl ether	U		0.367	1.00	1	10/21/2018 18:35	WG1184220
Naphthalene	U		1.00	5.00	1	10/21/2018 18:35	WG1184220
n-Propylbenzene	U		0.349	1.00	1	10/21/2018 18:35	WG1184220
Styrene	U		0.307	1.00	1	10/21/2018 18:35	WG1184220
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/21/2018 18:35	WG1184220
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/21/2018 18:35	WG1184220
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	10/21/2018 18:35	WG1184220
Tetrachloroethene	U		0.372	1.00	1	10/21/2018 18:35	WG1184220
Tetrahydrofuran	U		1.82	5.00	1	10/21/2018 18:35	WG1184220
Toluene	U		0.412	1.00	1	10/21/2018 18:35	WG1184220

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2,3-Trichlorobenzene	U		0.230	1.00	1	10/21/2018 18:35	WG1184220
1,2,4-Trichlorobenzene	U		0.355	1.00	1	10/21/2018 18:35	WG1184220
1,1,1-Trichloroethane	U		0.319	1.00	1	10/21/2018 18:35	WG1184220
1,1,2-Trichloroethane	U		0.383	1.00	1	10/21/2018 18:35	WG1184220
Trichloroethene	U		0.398	1.00	1	10/21/2018 18:35	WG1184220
Trichlorofluoromethane	U		1.20	5.00	1	10/21/2018 18:35	WG1184220
1,2,3-Trichloropropane	U		0.807	2.50	1	10/21/2018 18:35	WG1184220
1,2,4-Trimethylbenzene	U		0.373	1.00	1	10/21/2018 18:35	WG1184220
1,2,3-Trimethylbenzene	U		0.321	1.00	1	10/21/2018 18:35	WG1184220
1,3,5-Trimethylbenzene	U		0.387	1.00	1	10/21/2018 18:35	WG1184220
Vinyl chloride	U		0.259	1.00	1	10/21/2018 18:35	WG1184220
Xylenes, Total	U		1.06	3.00	1	10/21/2018 18:35	WG1184220
(S) Toluene-d8	*102*			*80.0-120*		*10/21/2018 18:35*	WG1184220
(S) Dibromofluoromethane	*90.7*			*75.0-120*		*10/21/2018 18:35*	WG1184220
(S) α,α,α-Trifluorotoluene	*106*			*80.0-120*		*10/21/2018 18:35*	WG1184220
(S) 4-Bromofluorobenzene	*96.1*			*77.0-126*		*10/21/2018 18:35*	WG1184220

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		10.0	50.0	1	10/21/2018 18:54	WG1184220
Allyl chloride	U		1.70	5.00	1	10/21/2018 18:54	WG1184220
Benzene	U		0.331	1.00	1	10/21/2018 18:54	WG1184220
Bromobenzene	U		0.352	1.00	1	10/21/2018 18:54	WG1184220
Bromochloromethane	U		0.520	5.00	1	10/21/2018 18:54	WG1184220
Bromodichloromethane	U		0.380	1.00	1	10/21/2018 18:54	WG1184220
Bromoform	U		0.469	1.00	1	10/21/2018 18:54	WG1184220
Bromomethane	U		0.866	5.00	1	10/21/2018 18:54	WG1184220
n-Butylbenzene	U		0.361	1.00	1	10/21/2018 18:54	WG1184220
sec-Butylbenzene	U		0.365	1.00	1	10/21/2018 18:54	WG1184220
tert-Butylbenzene	U		0.399	1.00	1	10/21/2018 18:54	WG1184220
Carbon tetrachloride	U		0.379	1.00	1	10/21/2018 18:54	WG1184220
Chlorobenzene	U		0.348	1.00	1	10/21/2018 18:54	WG1184220
Chlorodibromomethane	U		0.327	1.00	1	10/21/2018 18:54	WG1184220
Chloroethane	U		0.453	5.00	1	10/21/2018 18:54	WG1184220
Chloroform	U		0.324	5.00	1	10/21/2018 18:54	WG1184220
Chloromethane	U		0.276	2.50	1	10/21/2018 18:54	WG1184220
2-Chlorotoluene	U		0.375	1.00	1	10/21/2018 18:54	WG1184220
4-Chlorotoluene	U		0.351	1.00	1	10/21/2018 18:54	WG1184220
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/21/2018 18:54	WG1184220
1,2-Dibromoethane	U		0.381	1.00	1	10/21/2018 18:54	WG1184220
Dibromomethane	U		0.346	1.00	1	10/21/2018 18:54	WG1184220
1,2-Dichlorobenzene	U		0.349	1.00	1	10/21/2018 18:54	WG1184220
1,3-Dichlorobenzene	U		0.220	1.00	1	10/21/2018 18:54	WG1184220
1,4-Dichlorobenzene	U		0.274	1.00	1	10/21/2018 18:54	WG1184220
Dichlorodifluoromethane	U		0.551	5.00	1	10/21/2018 18:54	WG1184220
Dichlorofluoromethane	U		0.302	5.00	1	10/21/2018 18:54	WG1184220
1,1-Dichloroethane	U		0.259	1.00	1	10/21/2018 18:54	WG1184220
1,2-Dichloroethane	U		0.361	1.00	1	10/21/2018 18:54	WG1184220
1,1-Dichloroethene	U		0.398	1.00	1	10/21/2018 18:54	WG1184220
cis-1,2-Dichloroethene	U		0.260	1.00	1	10/21/2018 18:54	WG1184220
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/21/2018 18:54	WG1184220
1,2-Dichloropropane	U		0.306	1.00	1	10/21/2018 18:54	WG1184220
1,1-Dichloropropene	U		0.352	1.00	1	10/21/2018 18:54	WG1184220
1,3-Dichloropropane	U		0.366	1.00	1	10/21/2018 18:54	WG1184220
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/21/2018 18:54	WG1184220
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/21/2018 18:54	WG1184220
2,2-Dichloropropane	U		0.321	1.00	1	10/21/2018 18:54	WG1184220
Ethylbenzene	U		0.384	1.00	1	10/21/2018 18:54	WG1184220
Ethyl ether	U		0.389	1.00	1	10/21/2018 18:54	WG1184220
Hexachloro-1,3-butadiene	U		0.256	1.00	1	10/21/2018 18:54	WG1184220
Isopropylbenzene	U		0.326	1.00	1	10/21/2018 18:54	WG1184220
p-Isopropyltoluene	U		0.350	1.00	1	10/21/2018 18:54	WG1184220
2-Butanone (MEK)	U		3.93	10.0	1	10/21/2018 18:54	WG1184220
Methylene Chloride	U		1.00	5.00	1	10/21/2018 18:54	WG1184220
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/21/2018 18:54	WG1184220
Methyl tert-butyl ether	U		0.367	1.00	1	10/21/2018 18:54	WG1184220
Naphthalene	U		1.00	5.00	1	10/21/2018 18:54	WG1184220
n-Propylbenzene	U		0.349	1.00	1	10/21/2018 18:54	WG1184220
Styrene	U		0.307	1.00	1	10/21/2018 18:54	WG1184220
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/21/2018 18:54	WG1184220
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/21/2018 18:54	WG1184220
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	10/21/2018 18:54	WG1184220
Tetrachloroethene	U		0.372	1.00	1	10/21/2018 18:54	WG1184220
Tetrahydrofuran	U		1.82	5.00	1	10/21/2018 18:54	WG1184220
Toluene	U		0.412	1.00	1	10/21/2018 18:54	WG1184220

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2,3-Trichlorobenzene	U		0.230	1.00	1	10/21/2018 18:54	WG1184220
1,2,4-Trichlorobenzene	U		0.355	1.00	1	10/21/2018 18:54	WG1184220
1,1,1-Trichloroethane	U		0.319	1.00	1	10/21/2018 18:54	WG1184220
1,1,2-Trichloroethane	U		0.383	1.00	1	10/21/2018 18:54	WG1184220
Trichloroethene	0.882	J	0.398	1.00	1	10/21/2018 18:54	WG1184220
Trichlorofluoromethane	U		1.20	5.00	1	10/21/2018 18:54	WG1184220
1,2,3-Trichloropropane	U		0.807	2.50	1	10/21/2018 18:54	WG1184220
1,2,4-Trimethylbenzene	U		0.373	1.00	1	10/21/2018 18:54	WG1184220
1,2,3-Trimethylbenzene	U		0.321	1.00	1	10/21/2018 18:54	WG1184220
1,3,5-Trimethylbenzene	U		0.387	1.00	1	10/21/2018 18:54	WG1184220
Vinyl chloride	U		0.259	1.00	1	10/21/2018 18:54	WG1184220
Xylenes, Total	U		1.06	3.00	1	10/21/2018 18:54	WG1184220
(S) Toluene-d8	*103*			*80.0-120*		*10/21/2018 18:54*	WG1184220
(S) Dibromofluoromethane	*91.9*			*75.0-120*		*10/21/2018 18:54*	WG1184220
(S) α,α,α-Trifluorotoluene	*104*			*80.0-120*		*10/21/2018 18:54*	WG1184220
(S) 4-Bromofluorobenzene	*95.7*			*77.0-126*		*10/21/2018 18:54*	WG1184220

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		10.0	50.0	1	10/21/2018 19:12	WG1184220
Allyl chloride	U		1.70	5.00	1	10/21/2018 19:12	WG1184220
Benzene	U		0.331	1.00	1	10/21/2018 19:12	WG1184220
Bromobenzene	U		0.352	1.00	1	10/21/2018 19:12	WG1184220
Bromochloromethane	U		0.520	5.00	1	10/21/2018 19:12	WG1184220
Bromodichloromethane	U		0.380	1.00	1	10/21/2018 19:12	WG1184220
Bromoform	U		0.469	1.00	1	10/21/2018 19:12	WG1184220
Bromomethane	U		0.866	5.00	1	10/21/2018 19:12	WG1184220
n-Butylbenzene	U		0.361	1.00	1	10/21/2018 19:12	WG1184220
sec-Butylbenzene	U		0.365	1.00	1	10/21/2018 19:12	WG1184220
tert-Butylbenzene	U		0.399	1.00	1	10/21/2018 19:12	WG1184220
Carbon tetrachloride	U		0.379	1.00	1	10/21/2018 19:12	WG1184220
Chlorobenzene	U		0.348	1.00	1	10/21/2018 19:12	WG1184220
Chlorodibromomethane	U		0.327	1.00	1	10/21/2018 19:12	WG1184220
Chloroethane	U		0.453	5.00	1	10/21/2018 19:12	WG1184220
Chloroform	U		0.324	5.00	1	10/21/2018 19:12	WG1184220
Chloromethane	U		0.276	2.50	1	10/21/2018 19:12	WG1184220
2-Chlorotoluene	U		0.375	1.00	1	10/21/2018 19:12	WG1184220
4-Chlorotoluene	U		0.351	1.00	1	10/21/2018 19:12	WG1184220
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/21/2018 19:12	WG1184220
1,2-Dibromoethane	U		0.381	1.00	1	10/21/2018 19:12	WG1184220
Dibromomethane	U		0.346	1.00	1	10/21/2018 19:12	WG1184220
1,2-Dichlorobenzene	U		0.349	1.00	1	10/21/2018 19:12	WG1184220
1,3-Dichlorobenzene	U		0.220	1.00	1	10/21/2018 19:12	WG1184220
1,4-Dichlorobenzene	U		0.274	1.00	1	10/21/2018 19:12	WG1184220
Dichlorodifluoromethane	U		0.551	5.00	1	10/21/2018 19:12	WG1184220
Dichlorofluoromethane	U		0.302	5.00	1	10/21/2018 19:12	WG1184220
1,1-Dichloroethane	U		0.259	1.00	1	10/21/2018 19:12	WG1184220
1,2-Dichloroethane	U		0.361	1.00	1	10/21/2018 19:12	WG1184220
1,1-Dichloroethene	U		0.398	1.00	1	10/21/2018 19:12	WG1184220
cis-1,2-Dichloroethene	U		0.260	1.00	1	10/21/2018 19:12	WG1184220
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/21/2018 19:12	WG1184220
1,2-Dichloropropane	U		0.306	1.00	1	10/21/2018 19:12	WG1184220
1,1-Dichloropropene	U		0.352	1.00	1	10/21/2018 19:12	WG1184220
1,3-Dichloropropane	U		0.366	1.00	1	10/21/2018 19:12	WG1184220
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/21/2018 19:12	WG1184220
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/21/2018 19:12	WG1184220
2,2-Dichloropropane	U		0.321	1.00	1	10/21/2018 19:12	WG1184220
Ethylbenzene	U		0.384	1.00	1	10/21/2018 19:12	WG1184220
Ethyl ether	U		0.389	1.00	1	10/21/2018 19:12	WG1184220
Hexachloro-1,3-butadiene	U		0.256	1.00	1	10/21/2018 19:12	WG1184220
Isopropylbenzene	U		0.326	1.00	1	10/21/2018 19:12	WG1184220
p-Isopropyltoluene	U		0.350	1.00	1	10/21/2018 19:12	WG1184220
2-Butanone (MEK)	U		3.93	10.0	1	10/21/2018 19:12	WG1184220
Methylene Chloride	U		1.00	5.00	1	10/21/2018 19:12	WG1184220
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/21/2018 19:12	WG1184220
Methyl tert-butyl ether	U		0.367	1.00	1	10/21/2018 19:12	WG1184220
Naphthalene	U		1.00	5.00	1	10/21/2018 19:12	WG1184220
n-Propylbenzene	U		0.349	1.00	1	10/21/2018 19:12	WG1184220
Styrene	U		0.307	1.00	1	10/21/2018 19:12	WG1184220
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/21/2018 19:12	WG1184220
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/21/2018 19:12	WG1184220
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	10/21/2018 19:12	WG1184220
Tetrachloroethene	U		0.372	1.00	1	10/21/2018 19:12	WG1184220
Tetrahydrofuran	U		1.82	5.00	1	10/21/2018 19:12	WG1184220
Toluene	U		0.412	1.00	1	10/21/2018 19:12	WG1184220

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2,3-Trichlorobenzene	U		0.230	1.00	1	10/21/2018 19:12	WG1184220
1,2,4-Trichlorobenzene	U		0.355	1.00	1	10/21/2018 19:12	WG1184220
1,1,1-Trichloroethane	U		0.319	1.00	1	10/21/2018 19:12	WG1184220
1,1,2-Trichloroethane	U		0.383	1.00	1	10/21/2018 19:12	WG1184220
Trichloroethene	U		0.398	1.00	1	10/21/2018 19:12	WG1184220
Trichlorofluoromethane	U		1.20	5.00	1	10/21/2018 19:12	WG1184220
1,2,3-Trichloropropane	U		0.807	2.50	1	10/21/2018 19:12	WG1184220
1,2,4-Trimethylbenzene	U		0.373	1.00	1	10/21/2018 19:12	WG1184220
1,2,3-Trimethylbenzene	U		0.321	1.00	1	10/21/2018 19:12	WG1184220
1,3,5-Trimethylbenzene	U		0.387	1.00	1	10/21/2018 19:12	WG1184220
Vinyl chloride	U		0.259	1.00	1	10/21/2018 19:12	WG1184220
Xylenes, Total	U		1.06	3.00	1	10/21/2018 19:12	WG1184220
(S) Toluene-d8	*103*			*80.0-120*		*10/21/2018 19:12*	WG1184220
(S) Dibromofluoromethane	*91.6*			*75.0-120*		*10/21/2018 19:12*	WG1184220
(S) α,α,α-Trifluorotoluene	*104*			*80.0-120*		*10/21/2018 19:12*	WG1184220
(S) 4-Bromofluorobenzene	*96.1*			*77.0-126*		*10/21/2018 19:12*	WG1184220

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		10.0	50.0	1	10/21/2018 19:07	WG1184255
Allyl chloride	U		1.70	5.00	1	10/21/2018 19:07	WG1184255
Benzene	U		0.331	1.00	1	10/21/2018 19:07	WG1184255
Bromobenzene	U		0.352	1.00	1	10/21/2018 19:07	WG1184255
Bromochloromethane	U		0.520	5.00	1	10/21/2018 19:07	WG1184255
Bromodichloromethane	U		0.380	1.00	1	10/21/2018 19:07	WG1184255
Bromoform	U		0.469	1.00	1	10/21/2018 19:07	WG1184255
Bromomethane	U		0.866	5.00	1	10/21/2018 19:07	WG1184255
n-Butylbenzene	U		0.361	1.00	1	10/21/2018 19:07	WG1184255
sec-Butylbenzene	U		0.365	1.00	1	10/21/2018 19:07	WG1184255
tert-Butylbenzene	U		0.399	1.00	1	10/21/2018 19:07	WG1184255
Carbon tetrachloride	U		0.379	1.00	1	10/21/2018 19:07	WG1184255
Chlorobenzene	U		0.348	1.00	1	10/21/2018 19:07	WG1184255
Chlorodibromomethane	U		0.327	1.00	1	10/21/2018 19:07	WG1184255
Chloroethane	U		0.453	5.00	1	10/21/2018 19:07	WG1184255
Chloroform	U		0.324	5.00	1	10/21/2018 19:07	WG1184255
Chloromethane	U		0.276	2.50	1	10/21/2018 19:07	WG1184255
2-Chlorotoluene	U		0.375	1.00	1	10/21/2018 19:07	WG1184255
4-Chlorotoluene	U		0.351	1.00	1	10/21/2018 19:07	WG1184255
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/21/2018 19:07	WG1184255
1,2-Dibromoethane	U		0.381	1.00	1	10/21/2018 19:07	WG1184255
Dibromomethane	U		0.346	1.00	1	10/21/2018 19:07	WG1184255
1,2-Dichlorobenzene	U		0.349	1.00	1	10/21/2018 19:07	WG1184255
1,3-Dichlorobenzene	U		0.220	1.00	1	10/21/2018 19:07	WG1184255
1,4-Dichlorobenzene	U		0.274	1.00	1	10/21/2018 19:07	WG1184255
Dichlorodifluoromethane	U		0.551	5.00	1	10/21/2018 19:07	WG1184255
Dichlorofluoromethane	U	J4	0.302	5.00	1	10/21/2018 19:07	WG1184255
1,1-Dichloroethane	U		0.259	1.00	1	10/21/2018 19:07	WG1184255
1,2-Dichloroethane	U		0.361	1.00	1	10/21/2018 19:07	WG1184255
1,1-Dichloroethene	U		0.398	1.00	1	10/21/2018 19:07	WG1184255
cis-1,2-Dichloroethene	U		0.260	1.00	1	10/21/2018 19:07	WG1184255
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/21/2018 19:07	WG1184255
1,2-Dichloropropane	U		0.306	1.00	1	10/21/2018 19:07	WG1184255
1,1-Dichloropropene	U		0.352	1.00	1	10/21/2018 19:07	WG1184255
1,3-Dichloropropane	U		0.366	1.00	1	10/21/2018 19:07	WG1184255
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/21/2018 19:07	WG1184255
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/21/2018 19:07	WG1184255
2,2-Dichloropropane	U		0.321	1.00	1	10/21/2018 19:07	WG1184255
Ethylbenzene	U		0.384	1.00	1	10/21/2018 19:07	WG1184255
Ethyl ether	U		0.389	1.00	1	10/21/2018 19:07	WG1184255
Hexachloro-1,3-butadiene	U		0.256	1.00	1	10/21/2018 19:07	WG1184255
Isopropylbenzene	U		0.326	1.00	1	10/21/2018 19:07	WG1184255
p-Isopropyltoluene	U		0.350	1.00	1	10/21/2018 19:07	WG1184255
2-Butanone (MEK)	U		3.93	10.0	1	10/21/2018 19:07	WG1184255
Methylene Chloride	U		1.00	5.00	1	10/21/2018 19:07	WG1184255
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/21/2018 19:07	WG1184255
Methyl tert-butyl ether	U		0.367	1.00	1	10/21/2018 19:07	WG1184255
Naphthalene	U		1.00	5.00	1	10/21/2018 19:07	WG1184255
n-Propylbenzene	U		0.349	1.00	1	10/21/2018 19:07	WG1184255
Styrene	U		0.307	1.00	1	10/21/2018 19:07	WG1184255
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/21/2018 19:07	WG1184255
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/21/2018 19:07	WG1184255
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	10/21/2018 19:07	WG1184255
Tetrachloroethene	U		0.372	1.00	1	10/21/2018 19:07	WG1184255
Tetrahydrofuran	U		1.82	5.00	1	10/21/2018 19:07	WG1184255
Toluene	U		0.412	1.00	1	10/21/2018 19:07	WG1184255

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2,3-Trichlorobenzene	U		0.230	1.00	1	10/21/2018 19:07	WG1184255
1,2,4-Trichlorobenzene	U		0.355	1.00	1	10/21/2018 19:07	WG1184255
1,1,1-Trichloroethane	U		0.319	1.00	1	10/21/2018 19:07	WG1184255
1,1,2-Trichloroethane	U		0.383	1.00	1	10/21/2018 19:07	WG1184255
Trichloroethene	U		0.398	1.00	1	10/21/2018 19:07	WG1184255
Trichlorofluoromethane	U		1.20	5.00	1	10/21/2018 19:07	WG1184255
1,2,3-Trichloropropane	U		0.807	2.50	1	10/21/2018 19:07	WG1184255
1,2,4-Trimethylbenzene	U		0.373	1.00	1	10/21/2018 19:07	WG1184255
1,2,3-Trimethylbenzene	U		0.321	1.00	1	10/21/2018 19:07	WG1184255
1,3,5-Trimethylbenzene	U		0.387	1.00	1	10/21/2018 19:07	WG1184255
Vinyl chloride	U		0.259	1.00	1	10/21/2018 19:07	WG1184255
Xylenes, Total	U		1.06	3.00	1	10/21/2018 19:07	WG1184255
(S) Toluene-d8	*96.1*			*80.0-120*		*10/21/2018 19:07*	WG1184255
(S) Dibromofluoromethane	*111*			*75.0-120*		*10/21/2018 19:07*	WG1184255
(S) α,α,α-Trifluorotoluene	*101*			*80.0-120*		*10/21/2018 19:07*	WG1184255
(S) 4-Bromofluorobenzene	*104*			*77.0-126*		*10/21/2018 19:07*	WG1184255

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	10/21/2018 19:29	WG1184255
Allyl chloride	U		1.70	5.00	1	10/21/2018 19:29	WG1184255
Benzene	U		0.331	1.00	1	10/21/2018 19:29	WG1184255
Bromobenzene	U		0.352	1.00	1	10/21/2018 19:29	WG1184255
Bromochloromethane	U		0.520	5.00	1	10/21/2018 19:29	WG1184255
Bromodichloromethane	U		0.380	1.00	1	10/21/2018 19:29	WG1184255
Bromoform	U		0.469	1.00	1	10/21/2018 19:29	WG1184255
Bromomethane	U		0.866	5.00	1	10/21/2018 19:29	WG1184255
n-Butylbenzene	U		0.361	1.00	1	10/21/2018 19:29	WG1184255
sec-Butylbenzene	U		0.365	1.00	1	10/21/2018 19:29	WG1184255
tert-Butylbenzene	U		0.399	1.00	1	10/21/2018 19:29	WG1184255
Carbon tetrachloride	U		0.379	1.00	1	10/21/2018 19:29	WG1184255
Chlorobenzene	U		0.348	1.00	1	10/21/2018 19:29	WG1184255
Chlorodibromomethane	U		0.327	1.00	1	10/21/2018 19:29	WG1184255
Chloroethane	U		0.453	5.00	1	10/21/2018 19:29	WG1184255
Chloroform	U		0.324	5.00	1	10/21/2018 19:29	WG1184255
Chloromethane	U		0.276	2.50	1	10/21/2018 19:29	WG1184255
2-Chlorotoluene	U		0.375	1.00	1	10/21/2018 19:29	WG1184255
4-Chlorotoluene	U		0.351	1.00	1	10/21/2018 19:29	WG1184255
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/21/2018 19:29	WG1184255
1,2-Dibromoethane	U		0.381	1.00	1	10/21/2018 19:29	WG1184255
Dibromomethane	U		0.346	1.00	1	10/21/2018 19:29	WG1184255
1,2-Dichlorobenzene	U		0.349	1.00	1	10/21/2018 19:29	WG1184255
1,3-Dichlorobenzene	U		0.220	1.00	1	10/21/2018 19:29	WG1184255
1,4-Dichlorobenzene	U		0.274	1.00	1	10/21/2018 19:29	WG1184255
Dichlorodifluoromethane	U		0.551	5.00	1	10/21/2018 19:29	WG1184255
Dichlorofluoromethane	U	J4	0.302	5.00	1	10/21/2018 19:29	WG1184255
1,1-Dichloroethane	U		0.259	1.00	1	10/21/2018 19:29	WG1184255
1,2-Dichloroethane	U		0.361	1.00	1	10/21/2018 19:29	WG1184255
1,1-Dichloroethene	U		0.398	1.00	1	10/21/2018 19:29	WG1184255
cis-1,2-Dichloroethene	U		0.260	1.00	1	10/21/2018 19:29	WG1184255
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/21/2018 19:29	WG1184255
1,2-Dichloropropane	U		0.306	1.00	1	10/21/2018 19:29	WG1184255
1,1-Dichloropropene	U		0.352	1.00	1	10/21/2018 19:29	WG1184255
1,3-Dichloropropane	U		0.366	1.00	1	10/21/2018 19:29	WG1184255
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/21/2018 19:29	WG1184255
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/21/2018 19:29	WG1184255
2,2-Dichloropropane	U		0.321	1.00	1	10/21/2018 19:29	WG1184255
Ethylbenzene	U		0.384	1.00	1	10/21/2018 19:29	WG1184255
Ethyl ether	U		0.389	1.00	1	10/21/2018 19:29	WG1184255
Hexachloro-1,3-butadiene	U		0.256	1.00	1	10/21/2018 19:29	WG1184255
Isopropylbenzene	U		0.326	1.00	1	10/21/2018 19:29	WG1184255
p-Isopropyltoluene	U		0.350	1.00	1	10/21/2018 19:29	WG1184255
2-Butanone (MEK)	U		3.93	10.0	1	10/21/2018 19:29	WG1184255
Methylene Chloride	U		1.00	5.00	1	10/21/2018 19:29	WG1184255
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/21/2018 19:29	WG1184255
Methyl tert-butyl ether	U		0.367	1.00	1	10/21/2018 19:29	WG1184255
Naphthalene	U		1.00	5.00	1	10/21/2018 19:29	WG1184255
n-Propylbenzene	U		0.349	1.00	1	10/21/2018 19:29	WG1184255
Styrene	U		0.307	1.00	1	10/21/2018 19:29	WG1184255
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/21/2018 19:29	WG1184255
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/21/2018 19:29	WG1184255
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	10/21/2018 19:29	WG1184255
Tetrachloroethene	U		0.372	1.00	1	10/21/2018 19:29	WG1184255
Tetrahydrofuran	U		1.82	5.00	1	10/21/2018 19:29	WG1184255
Toluene	U		0.412	1.00	1	10/21/2018 19:29	WG1184255

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2,3-Trichlorobenzene	U		0.230	1.00	1	10/21/2018 19:29	WG1184255
1,2,4-Trichlorobenzene	U		0.355	1.00	1	10/21/2018 19:29	WG1184255
1,1,1-Trichloroethane	U		0.319	1.00	1	10/21/2018 19:29	WG1184255
1,1,2-Trichloroethane	U		0.383	1.00	1	10/21/2018 19:29	WG1184255
Trichloroethene	U		0.398	1.00	1	10/21/2018 19:29	WG1184255
Trichlorofluoromethane	U		1.20	5.00	1	10/21/2018 19:29	WG1184255
1,2,3-Trichloropropane	U		0.807	2.50	1	10/21/2018 19:29	WG1184255
1,2,4-Trimethylbenzene	U		0.373	1.00	1	10/21/2018 19:29	WG1184255
1,2,3-Trimethylbenzene	U		0.321	1.00	1	10/21/2018 19:29	WG1184255
1,3,5-Trimethylbenzene	U		0.387	1.00	1	10/21/2018 19:29	WG1184255
Vinyl chloride	U		0.259	1.00	1	10/21/2018 19:29	WG1184255
Xylenes, Total	U		1.06	3.00	1	10/21/2018 19:29	WG1184255
(S) Toluene-d8	*98.0*			*80.0-120*		*10/21/2018 19:29*	WG1184255
(S) Dibromofluoromethane	*109*			*75.0-120*		*10/21/2018 19:29*	WG1184255
(S) a,a,a-Trifluorotoluene	*104*			*80.0-120*		*10/21/2018 19:29*	WG1184255
(S) 4-Bromofluorobenzene	*105*			*77.0-126*		*10/21/2018 19:29*	WG1184255

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		10.0	50.0	1	10/21/2018 19:50	WG1184255
Allyl chloride	U		1.70	5.00	1	10/21/2018 19:50	WG1184255
Benzene	U		0.331	1.00	1	10/21/2018 19:50	WG1184255
Bromobenzene	U		0.352	1.00	1	10/21/2018 19:50	WG1184255
Bromochloromethane	U		0.520	5.00	1	10/21/2018 19:50	WG1184255
Bromodichloromethane	U		0.380	1.00	1	10/21/2018 19:50	WG1184255
Bromoform	U		0.469	1.00	1	10/21/2018 19:50	WG1184255
Bromomethane	U		0.866	5.00	1	10/21/2018 19:50	WG1184255
n-Butylbenzene	U		0.361	1.00	1	10/21/2018 19:50	WG1184255
sec-Butylbenzene	U		0.365	1.00	1	10/21/2018 19:50	WG1184255
tert-Butylbenzene	U		0.399	1.00	1	10/21/2018 19:50	WG1184255
Carbon tetrachloride	U		0.379	1.00	1	10/21/2018 19:50	WG1184255
Chlorobenzene	U		0.348	1.00	1	10/21/2018 19:50	WG1184255
Chlorodibromomethane	U		0.327	1.00	1	10/21/2018 19:50	WG1184255
Chloroethane	U		0.453	5.00	1	10/21/2018 19:50	WG1184255
Chloroform	U		0.324	5.00	1	10/21/2018 19:50	WG1184255
Chloromethane	U		0.276	2.50	1	10/21/2018 19:50	WG1184255
2-Chlorotoluene	U		0.375	1.00	1	10/21/2018 19:50	WG1184255
4-Chlorotoluene	U		0.351	1.00	1	10/21/2018 19:50	WG1184255
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/21/2018 19:50	WG1184255
1,2-Dibromoethane	U		0.381	1.00	1	10/21/2018 19:50	WG1184255
Dibromomethane	U		0.346	1.00	1	10/21/2018 19:50	WG1184255
1,2-Dichlorobenzene	U		0.349	1.00	1	10/21/2018 19:50	WG1184255
1,3-Dichlorobenzene	U		0.220	1.00	1	10/21/2018 19:50	WG1184255
1,4-Dichlorobenzene	U		0.274	1.00	1	10/21/2018 19:50	WG1184255
Dichlorodifluoromethane	U		0.551	5.00	1	10/21/2018 19:50	WG1184255
Dichlorofluoromethane	U	J4	0.302	5.00	1	10/21/2018 19:50	WG1184255
1,1-Dichloroethane	U		0.259	1.00	1	10/21/2018 19:50	WG1184255
1,2-Dichloroethane	U		0.361	1.00	1	10/21/2018 19:50	WG1184255
1,1-Dichloroethene	U		0.398	1.00	1	10/21/2018 19:50	WG1184255
cis-1,2-Dichloroethene	U		0.260	1.00	1	10/21/2018 19:50	WG1184255
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/21/2018 19:50	WG1184255
1,2-Dichloropropane	U		0.306	1.00	1	10/21/2018 19:50	WG1184255
1,1-Dichloropropene	U		0.352	1.00	1	10/21/2018 19:50	WG1184255
1,3-Dichloropropane	U		0.366	1.00	1	10/21/2018 19:50	WG1184255
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/21/2018 19:50	WG1184255
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/21/2018 19:50	WG1184255
2,2-Dichloropropane	U		0.321	1.00	1	10/21/2018 19:50	WG1184255
Ethylbenzene	U		0.384	1.00	1	10/21/2018 19:50	WG1184255
Ethyl ether	U		0.389	1.00	1	10/21/2018 19:50	WG1184255
Hexachloro-1,3-butadiene	U		0.256	1.00	1	10/21/2018 19:50	WG1184255
Isopropylbenzene	U		0.326	1.00	1	10/21/2018 19:50	WG1184255
p-Isopropyltoluene	U		0.350	1.00	1	10/21/2018 19:50	WG1184255
2-Butanone (MEK)	U		3.93	10.0	1	10/21/2018 19:50	WG1184255
Methylene Chloride	U		1.00	5.00	1	10/21/2018 19:50	WG1184255
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/21/2018 19:50	WG1184255
Methyl tert-butyl ether	U		0.367	1.00	1	10/21/2018 19:50	WG1184255
Naphthalene	U		1.00	5.00	1	10/21/2018 19:50	WG1184255
n-Propylbenzene	U		0.349	1.00	1	10/21/2018 19:50	WG1184255
Styrene	U		0.307	1.00	1	10/21/2018 19:50	WG1184255
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/21/2018 19:50	WG1184255
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/21/2018 19:50	WG1184255
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	10/21/2018 19:50	WG1184255
Tetrachloroethene	3.22		0.372	1.00	1	10/21/2018 19:50	WG1184255
Tetrahydrofuran	U		1.82	5.00	1	10/21/2018 19:50	WG1184255
Toluene	U		0.412	1.00	1	10/21/2018 19:50	WG1184255

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2,3-Trichlorobenzene	U		0.230	1.00	1	10/21/2018 19:50	WG1184255
1,2,4-Trichlorobenzene	U		0.355	1.00	1	10/21/2018 19:50	WG1184255
1,1,1-Trichloroethane	U		0.319	1.00	1	10/21/2018 19:50	WG1184255
1,1,2-Trichloroethane	U		0.383	1.00	1	10/21/2018 19:50	WG1184255
Trichloroethene	U		0.398	1.00	1	10/21/2018 19:50	WG1184255
Trichlorofluoromethane	U		1.20	5.00	1	10/21/2018 19:50	WG1184255
1,2,3-Trichloropropane	U		0.807	2.50	1	10/21/2018 19:50	WG1184255
1,2,4-Trimethylbenzene	U		0.373	1.00	1	10/21/2018 19:50	WG1184255
1,2,3-Trimethylbenzene	U		0.321	1.00	1	10/21/2018 19:50	WG1184255
1,3,5-Trimethylbenzene	U		0.387	1.00	1	10/21/2018 19:50	WG1184255
Vinyl chloride	U		0.259	1.00	1	10/21/2018 19:50	WG1184255
Xylenes, Total	U		1.06	3.00	1	10/21/2018 19:50	WG1184255
(S) Toluene-d8	*96.5*			*80.0-120*		*10/21/2018 19:50*	WG1184255
(S) Dibromofluoromethane	*110*			*75.0-120*		*10/21/2018 19:50*	WG1184255
(S) α,α,α-Trifluorotoluene	*102*			*80.0-120*		*10/21/2018 19:50*	WG1184255
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*10/21/2018 19:50*	WG1184255

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		10.0	50.0	1	10/21/2018 20:12	WG1184255
Allyl chloride	U		1.70	5.00	1	10/21/2018 20:12	WG1184255
Benzene	U		0.331	1.00	1	10/21/2018 20:12	WG1184255
Bromobenzene	U		0.352	1.00	1	10/21/2018 20:12	WG1184255
Bromochloromethane	U		0.520	5.00	1	10/21/2018 20:12	WG1184255
Bromodichloromethane	U		0.380	1.00	1	10/21/2018 20:12	WG1184255
Bromoform	U		0.469	1.00	1	10/21/2018 20:12	WG1184255
Bromomethane	U		0.866	5.00	1	10/21/2018 20:12	WG1184255
n-Butylbenzene	U		0.361	1.00	1	10/21/2018 20:12	WG1184255
sec-Butylbenzene	U		0.365	1.00	1	10/21/2018 20:12	WG1184255
tert-Butylbenzene	U		0.399	1.00	1	10/21/2018 20:12	WG1184255
Carbon tetrachloride	U		0.379	1.00	1	10/21/2018 20:12	WG1184255
Chlorobenzene	U		0.348	1.00	1	10/21/2018 20:12	WG1184255
Chlorodibromomethane	U		0.327	1.00	1	10/21/2018 20:12	WG1184255
Chloroethane	U		0.453	5.00	1	10/21/2018 20:12	WG1184255
Chloroform	U		0.324	5.00	1	10/21/2018 20:12	WG1184255
Chloromethane	U		0.276	2.50	1	10/21/2018 20:12	WG1184255
2-Chlorotoluene	U		0.375	1.00	1	10/21/2018 20:12	WG1184255
4-Chlorotoluene	U		0.351	1.00	1	10/21/2018 20:12	WG1184255
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/21/2018 20:12	WG1184255
1,2-Dibromoethane	U		0.381	1.00	1	10/21/2018 20:12	WG1184255
Dibromomethane	U		0.346	1.00	1	10/21/2018 20:12	WG1184255
1,2-Dichlorobenzene	U		0.349	1.00	1	10/21/2018 20:12	WG1184255
1,3-Dichlorobenzene	U		0.220	1.00	1	10/21/2018 20:12	WG1184255
1,4-Dichlorobenzene	U		0.274	1.00	1	10/21/2018 20:12	WG1184255
Dichlorodifluoromethane	U		0.551	5.00	1	10/21/2018 20:12	WG1184255
Dichlorofluoromethane	U	J4	0.302	5.00	1	10/21/2018 20:12	WG1184255
1,1-Dichloroethane	0.615	J	0.259	1.00	1	10/21/2018 20:12	WG1184255
1,2-Dichloroethane	U		0.361	1.00	1	10/21/2018 20:12	WG1184255
1,1-Dichloroethene	U		0.398	1.00	1	10/21/2018 20:12	WG1184255
cis-1,2-Dichloroethene	1.36		0.260	1.00	1	10/21/2018 20:12	WG1184255
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/21/2018 20:12	WG1184255
1,2-Dichloropropane	U		0.306	1.00	1	10/21/2018 20:12	WG1184255
1,1-Dichloropropene	U		0.352	1.00	1	10/21/2018 20:12	WG1184255
1,3-Dichloropropane	U		0.366	1.00	1	10/21/2018 20:12	WG1184255
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/21/2018 20:12	WG1184255
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/21/2018 20:12	WG1184255
2,2-Dichloropropane	U		0.321	1.00	1	10/21/2018 20:12	WG1184255
Ethylbenzene	U		0.384	1.00	1	10/21/2018 20:12	WG1184255
Ethyl ether	U		0.389	1.00	1	10/21/2018 20:12	WG1184255
Hexachloro-1,3-butadiene	U		0.256	1.00	1	10/21/2018 20:12	WG1184255
Isopropylbenzene	U		0.326	1.00	1	10/21/2018 20:12	WG1184255
p-Isopropyltoluene	U		0.350	1.00	1	10/21/2018 20:12	WG1184255
2-Butanone (MEK)	U		3.93	10.0	1	10/21/2018 20:12	WG1184255
Methylene Chloride	U		1.00	5.00	1	10/21/2018 20:12	WG1184255
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/21/2018 20:12	WG1184255
Methyl tert-butyl ether	U		0.367	1.00	1	10/21/2018 20:12	WG1184255
Naphthalene	U		1.00	5.00	1	10/21/2018 20:12	WG1184255
n-Propylbenzene	U		0.349	1.00	1	10/21/2018 20:12	WG1184255
Styrene	U		0.307	1.00	1	10/21/2018 20:12	WG1184255
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/21/2018 20:12	WG1184255
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/21/2018 20:12	WG1184255
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	10/21/2018 20:12	WG1184255
Tetrachloroethene	U		0.372	1.00	1	10/21/2018 20:12	WG1184255
Tetrahydrofuran	U		1.82	5.00	1	10/21/2018 20:12	WG1184255
Toluene	U		0.412	1.00	1	10/21/2018 20:12	WG1184255

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2,3-Trichlorobenzene	U		0.230	1.00	1	10/21/2018 20:12	WG1184255
1,2,4-Trichlorobenzene	U		0.355	1.00	1	10/21/2018 20:12	WG1184255
1,1,1-Trichloroethane	U		0.319	1.00	1	10/21/2018 20:12	WG1184255
1,1,2-Trichloroethane	U		0.383	1.00	1	10/21/2018 20:12	WG1184255
Trichloroethene	U		0.398	1.00	1	10/21/2018 20:12	WG1184255
Trichlorofluoromethane	U		1.20	5.00	1	10/21/2018 20:12	WG1184255
1,2,3-Trichloropropane	U		0.807	2.50	1	10/21/2018 20:12	WG1184255
1,2,4-Trimethylbenzene	U		0.373	1.00	1	10/21/2018 20:12	WG1184255
1,2,3-Trimethylbenzene	U		0.321	1.00	1	10/21/2018 20:12	WG1184255
1,3,5-Trimethylbenzene	U		0.387	1.00	1	10/21/2018 20:12	WG1184255
Vinyl chloride	U		0.259	1.00	1	10/21/2018 20:12	WG1184255
Xylenes, Total	U		1.06	3.00	1	10/21/2018 20:12	WG1184255
(S) Toluene-d8	*96.3*			*80.0-120*		*10/21/2018 20:12*	WG1184255
(S) Dibromofluoromethane	*110*			*75.0-120*		*10/21/2018 20:12*	WG1184255
(S) α,α,α-Trifluorotoluene	*103*			*80.0-120*		*10/21/2018 20:12*	WG1184255
(S) 4-Bromofluorobenzene	*104*			*77.0-126*		*10/21/2018 20:12*	WG1184255

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	10/21/2018 20:34	WG1184255
Allyl chloride	U		1.70	5.00	1	10/21/2018 20:34	WG1184255
Benzene	U		0.331	1.00	1	10/21/2018 20:34	WG1184255
Bromobenzene	U		0.352	1.00	1	10/21/2018 20:34	WG1184255
Bromochloromethane	U		0.520	5.00	1	10/21/2018 20:34	WG1184255
Bromodichloromethane	U		0.380	1.00	1	10/21/2018 20:34	WG1184255
Bromoform	U		0.469	1.00	1	10/21/2018 20:34	WG1184255
Bromomethane	U		0.866	5.00	1	10/21/2018 20:34	WG1184255
n-Butylbenzene	U		0.361	1.00	1	10/21/2018 20:34	WG1184255
sec-Butylbenzene	U		0.365	1.00	1	10/21/2018 20:34	WG1184255
tert-Butylbenzene	U		0.399	1.00	1	10/21/2018 20:34	WG1184255
Carbon tetrachloride	U		0.379	1.00	1	10/21/2018 20:34	WG1184255
Chlorobenzene	U		0.348	1.00	1	10/21/2018 20:34	WG1184255
Chlorodibromomethane	U		0.327	1.00	1	10/21/2018 20:34	WG1184255
Chloroethane	U		0.453	5.00	1	10/21/2018 20:34	WG1184255
Chloroform	U		0.324	5.00	1	10/21/2018 20:34	WG1184255
Chloromethane	U		0.276	2.50	1	10/21/2018 20:34	WG1184255
2-Chlorotoluene	U		0.375	1.00	1	10/21/2018 20:34	WG1184255
4-Chlorotoluene	U		0.351	1.00	1	10/21/2018 20:34	WG1184255
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/21/2018 20:34	WG1184255
1,2-Dibromoethane	U		0.381	1.00	1	10/21/2018 20:34	WG1184255
Dibromomethane	U		0.346	1.00	1	10/21/2018 20:34	WG1184255
1,2-Dichlorobenzene	U		0.349	1.00	1	10/21/2018 20:34	WG1184255
1,3-Dichlorobenzene	U		0.220	1.00	1	10/21/2018 20:34	WG1184255
1,4-Dichlorobenzene	U		0.274	1.00	1	10/21/2018 20:34	WG1184255
Dichlorodifluoromethane	U		0.551	5.00	1	10/21/2018 20:34	WG1184255
Dichlorofluoromethane	U	J4	0.302	5.00	1	10/21/2018 20:34	WG1184255
1,1-Dichloroethane	2.36		0.259	1.00	1	10/21/2018 20:34	WG1184255
1,2-Dichloroethane	U		0.361	1.00	1	10/21/2018 20:34	WG1184255
1,1-Dichloroethene	U		0.398	1.00	1	10/21/2018 20:34	WG1184255
cis-1,2-Dichloroethene	2.15		0.260	1.00	1	10/21/2018 20:34	WG1184255
trans-1,2-Dichloroethene	0.416	J	0.396	1.00	1	10/21/2018 20:34	WG1184255
1,2-Dichloropropane	U		0.306	1.00	1	10/21/2018 20:34	WG1184255
1,1-Dichloropropene	U		0.352	1.00	1	10/21/2018 20:34	WG1184255
1,3-Dichloropropane	U		0.366	1.00	1	10/21/2018 20:34	WG1184255
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/21/2018 20:34	WG1184255
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/21/2018 20:34	WG1184255
2,2-Dichloropropane	U		0.321	1.00	1	10/21/2018 20:34	WG1184255
Ethylbenzene	U		0.384	1.00	1	10/21/2018 20:34	WG1184255
Ethyl ether	U		0.389	1.00	1	10/21/2018 20:34	WG1184255
Hexachloro-1,3-butadiene	U		0.256	1.00	1	10/21/2018 20:34	WG1184255
Isopropylbenzene	U		0.326	1.00	1	10/21/2018 20:34	WG1184255
p-Isopropyltoluene	U		0.350	1.00	1	10/21/2018 20:34	WG1184255
2-Butanone (MEK)	U		3.93	10.0	1	10/21/2018 20:34	WG1184255
Methylene Chloride	U		1.00	5.00	1	10/21/2018 20:34	WG1184255
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/21/2018 20:34	WG1184255
Methyl tert-butyl ether	U		0.367	1.00	1	10/21/2018 20:34	WG1184255
Naphthalene	U		1.00	5.00	1	10/21/2018 20:34	WG1184255
n-Propylbenzene	U		0.349	1.00	1	10/21/2018 20:34	WG1184255
Styrene	U		0.307	1.00	1	10/21/2018 20:34	WG1184255
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/21/2018 20:34	WG1184255
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/21/2018 20:34	WG1184255
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	10/21/2018 20:34	WG1184255
Tetrachloroethene	U		0.372	1.00	1	10/21/2018 20:34	WG1184255
Tetrahydrofuran	U		1.82	5.00	1	10/21/2018 20:34	WG1184255
Toluene	U		0.412	1.00	1	10/21/2018 20:34	WG1184255

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2,3-Trichlorobenzene	U		0.230	1.00	1	10/21/2018 20:34	WG1184255
1,2,4-Trichlorobenzene	U		0.355	1.00	1	10/21/2018 20:34	WG1184255
1,1,1-Trichloroethane	U		0.319	1.00	1	10/21/2018 20:34	WG1184255
1,1,2-Trichloroethane	U		0.383	1.00	1	10/21/2018 20:34	WG1184255
Trichloroethene	1.23		0.398	1.00	1	10/21/2018 20:34	WG1184255
Trichlorofluoromethane	U		1.20	5.00	1	10/21/2018 20:34	WG1184255
1,2,3-Trichloropropane	U		0.807	2.50	1	10/21/2018 20:34	WG1184255
1,2,4-Trimethylbenzene	U		0.373	1.00	1	10/21/2018 20:34	WG1184255
1,2,3-Trimethylbenzene	U		0.321	1.00	1	10/21/2018 20:34	WG1184255
1,3,5-Trimethylbenzene	U		0.387	1.00	1	10/21/2018 20:34	WG1184255
Vinyl chloride	U		0.259	1.00	1	10/21/2018 20:34	WG1184255
Xylenes, Total	U		1.06	3.00	1	10/21/2018 20:34	WG1184255
(S) Toluene-d8	*96.5*			*80.0-120*		*10/21/2018 20:34*	WG1184255
(S) Dibromofluoromethane	*110*			*75.0-120*		*10/21/2018 20:34*	WG1184255
(S) α,α,α-Trifluorotoluene	*102*			*80.0-120*		*10/21/2018 20:34*	WG1184255
(S) 4-Bromofluorobenzene	*104*			*77.0-126*		*10/21/2018 20:34*	WG1184255

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		10.0	50.0	1	10/21/2018 20:56	WG1184255
Allyl chloride	U		1.70	5.00	1	10/21/2018 20:56	WG1184255
Benzene	U		0.331	1.00	1	10/21/2018 20:56	WG1184255
Bromobenzene	U		0.352	1.00	1	10/21/2018 20:56	WG1184255
Bromochloromethane	U		0.520	5.00	1	10/21/2018 20:56	WG1184255
Bromodichloromethane	U		0.380	1.00	1	10/21/2018 20:56	WG1184255
Bromoform	U		0.469	1.00	1	10/21/2018 20:56	WG1184255
Bromomethane	U		0.866	5.00	1	10/21/2018 20:56	WG1184255
n-Butylbenzene	U		0.361	1.00	1	10/21/2018 20:56	WG1184255
sec-Butylbenzene	U		0.365	1.00	1	10/21/2018 20:56	WG1184255
tert-Butylbenzene	U		0.399	1.00	1	10/21/2018 20:56	WG1184255
Carbon tetrachloride	U		0.379	1.00	1	10/21/2018 20:56	WG1184255
Chlorobenzene	U		0.348	1.00	1	10/21/2018 20:56	WG1184255
Chlorodibromomethane	U		0.327	1.00	1	10/21/2018 20:56	WG1184255
Chloroethane	U		0.453	5.00	1	10/21/2018 20:56	WG1184255
Chloroform	U		0.324	5.00	1	10/21/2018 20:56	WG1184255
Chloromethane	U		0.276	2.50	1	10/21/2018 20:56	WG1184255
2-Chlorotoluene	U		0.375	1.00	1	10/21/2018 20:56	WG1184255
4-Chlorotoluene	U		0.351	1.00	1	10/21/2018 20:56	WG1184255
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/21/2018 20:56	WG1184255
1,2-Dibromoethane	U		0.381	1.00	1	10/21/2018 20:56	WG1184255
Dibromomethane	U		0.346	1.00	1	10/21/2018 20:56	WG1184255
1,2-Dichlorobenzene	U		0.349	1.00	1	10/21/2018 20:56	WG1184255
1,3-Dichlorobenzene	U		0.220	1.00	1	10/21/2018 20:56	WG1184255
1,4-Dichlorobenzene	U		0.274	1.00	1	10/21/2018 20:56	WG1184255
Dichlorodifluoromethane	U		0.551	5.00	1	10/21/2018 20:56	WG1184255
Dichlorofluoromethane	U	J4	0.302	5.00	1	10/21/2018 20:56	WG1184255
1,1-Dichloroethane	0.259	J	0.259	1.00	1	10/21/2018 20:56	WG1184255
1,2-Dichloroethane	U		0.361	1.00	1	10/21/2018 20:56	WG1184255
1,1-Dichloroethene	U		0.398	1.00	1	10/21/2018 20:56	WG1184255
cis-1,2-Dichloroethene	3.61		0.260	1.00	1	10/21/2018 20:56	WG1184255
trans-1,2-Dichloroethene	2.67		0.396	1.00	1	10/21/2018 20:56	WG1184255
1,2-Dichloropropane	U		0.306	1.00	1	10/21/2018 20:56	WG1184255
1,1-Dichloropropene	U		0.352	1.00	1	10/21/2018 20:56	WG1184255
1,3-Dichloropropane	U		0.366	1.00	1	10/21/2018 20:56	WG1184255
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/21/2018 20:56	WG1184255
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/21/2018 20:56	WG1184255
2,2-Dichloropropane	U		0.321	1.00	1	10/21/2018 20:56	WG1184255
Ethylbenzene	U		0.384	1.00	1	10/21/2018 20:56	WG1184255
Ethyl ether	U		0.389	1.00	1	10/21/2018 20:56	WG1184255
Hexachloro-1,3-butadiene	U		0.256	1.00	1	10/21/2018 20:56	WG1184255
Isopropylbenzene	U		0.326	1.00	1	10/21/2018 20:56	WG1184255
p-Isopropyltoluene	U		0.350	1.00	1	10/21/2018 20:56	WG1184255
2-Butanone (MEK)	U		3.93	10.0	1	10/21/2018 20:56	WG1184255
Methylene Chloride	U		1.00	5.00	1	10/21/2018 20:56	WG1184255
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/21/2018 20:56	WG1184255
Methyl tert-butyl ether	U		0.367	1.00	1	10/21/2018 20:56	WG1184255
Naphthalene	U		1.00	5.00	1	10/21/2018 20:56	WG1184255
n-Propylbenzene	U		0.349	1.00	1	10/21/2018 20:56	WG1184255
Styrene	U		0.307	1.00	1	10/21/2018 20:56	WG1184255
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/21/2018 20:56	WG1184255
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/21/2018 20:56	WG1184255
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	10/21/2018 20:56	WG1184255
Tetrachloroethene	7.57		0.372	1.00	1	10/21/2018 20:56	WG1184255
Tetrahydrofuran	U		1.82	5.00	1	10/21/2018 20:56	WG1184255
Toluene	U		0.412	1.00	1	10/21/2018 20:56	WG1184255

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2,3-Trichlorobenzene	U		0.230	1.00	1	10/21/2018 20:56	WG1184255
1,2,4-Trichlorobenzene	U		0.355	1.00	1	10/21/2018 20:56	WG1184255
1,1,1-Trichloroethane	U		0.319	1.00	1	10/21/2018 20:56	WG1184255
1,1,2-Trichloroethane	U		0.383	1.00	1	10/21/2018 20:56	WG1184255
Trichloroethene	14.1		0.398	1.00	1	10/21/2018 20:56	WG1184255
Trichlorofluoromethane	U		1.20	5.00	1	10/21/2018 20:56	WG1184255
1,2,3-Trichloropropane	U		0.807	2.50	1	10/21/2018 20:56	WG1184255
1,2,4-Trimethylbenzene	U		0.373	1.00	1	10/21/2018 20:56	WG1184255
1,2,3-Trimethylbenzene	U		0.321	1.00	1	10/21/2018 20:56	WG1184255
1,3,5-Trimethylbenzene	U		0.387	1.00	1	10/21/2018 20:56	WG1184255
Vinyl chloride	U		0.259	1.00	1	10/21/2018 20:56	WG1184255
Xylenes, Total	U		1.06	3.00	1	10/21/2018 20:56	WG1184255
(S) Toluene-d8	*95.8*			*80.0-120*		*10/21/2018 20:56*	WG1184255
(S) Dibromofluoromethane	*114*			*75.0-120*		*10/21/2018 20:56*	WG1184255
(S) α,α,α-Trifluorotoluene	*102*			*80.0-120*		*10/21/2018 20:56*	WG1184255
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*10/21/2018 20:56*	WG1184255

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		10.0	50.0	1	10/21/2018 21:18	WG1184255
Allyl chloride	U		1.70	5.00	1	10/21/2018 21:18	WG1184255
Benzene	U		0.331	1.00	1	10/21/2018 21:18	WG1184255
Bromobenzene	U		0.352	1.00	1	10/21/2018 21:18	WG1184255
Bromochloromethane	U		0.520	5.00	1	10/21/2018 21:18	WG1184255
Bromodichloromethane	U		0.380	1.00	1	10/21/2018 21:18	WG1184255
Bromoform	U		0.469	1.00	1	10/21/2018 21:18	WG1184255
Bromomethane	U		0.866	5.00	1	10/21/2018 21:18	WG1184255
n-Butylbenzene	U		0.361	1.00	1	10/21/2018 21:18	WG1184255
sec-Butylbenzene	U		0.365	1.00	1	10/21/2018 21:18	WG1184255
tert-Butylbenzene	U		0.399	1.00	1	10/21/2018 21:18	WG1184255
Carbon tetrachloride	U		0.379	1.00	1	10/21/2018 21:18	WG1184255
Chlorobenzene	U		0.348	1.00	1	10/21/2018 21:18	WG1184255
Chlorodibromomethane	U		0.327	1.00	1	10/21/2018 21:18	WG1184255
Chloroethane	U		0.453	5.00	1	10/21/2018 21:18	WG1184255
Chloroform	U		0.324	5.00	1	10/21/2018 21:18	WG1184255
Chloromethane	U		0.276	2.50	1	10/21/2018 21:18	WG1184255
2-Chlorotoluene	U		0.375	1.00	1	10/21/2018 21:18	WG1184255
4-Chlorotoluene	U		0.351	1.00	1	10/21/2018 21:18	WG1184255
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/21/2018 21:18	WG1184255
1,2-Dibromoethane	U		0.381	1.00	1	10/21/2018 21:18	WG1184255
Dibromomethane	U		0.346	1.00	1	10/21/2018 21:18	WG1184255
1,2-Dichlorobenzene	U		0.349	1.00	1	10/21/2018 21:18	WG1184255
1,3-Dichlorobenzene	U		0.220	1.00	1	10/21/2018 21:18	WG1184255
1,4-Dichlorobenzene	U		0.274	1.00	1	10/21/2018 21:18	WG1184255
Dichlorodifluoromethane	U		0.551	5.00	1	10/21/2018 21:18	WG1184255
Dichlorofluoromethane	U	J4	0.302	5.00	1	10/21/2018 21:18	WG1184255
1,1-Dichloroethane	U		0.259	1.00	1	10/21/2018 21:18	WG1184255
1,2-Dichloroethane	U		0.361	1.00	1	10/21/2018 21:18	WG1184255
1,1-Dichloroethene	U		0.398	1.00	1	10/21/2018 21:18	WG1184255
cis-1,2-Dichloroethene	U		0.260	1.00	1	10/21/2018 21:18	WG1184255
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/21/2018 21:18	WG1184255
1,2-Dichloropropane	U		0.306	1.00	1	10/21/2018 21:18	WG1184255
1,1-Dichloropropene	U		0.352	1.00	1	10/21/2018 21:18	WG1184255
1,3-Dichloropropane	U		0.366	1.00	1	10/21/2018 21:18	WG1184255
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/21/2018 21:18	WG1184255
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/21/2018 21:18	WG1184255
2,2-Dichloropropane	U		0.321	1.00	1	10/21/2018 21:18	WG1184255
Ethylbenzene	U		0.384	1.00	1	10/21/2018 21:18	WG1184255
Ethyl ether	U		0.389	1.00	1	10/21/2018 21:18	WG1184255
Hexachloro-1,3-butadiene	U		0.256	1.00	1	10/21/2018 21:18	WG1184255
Isopropylbenzene	U		0.326	1.00	1	10/21/2018 21:18	WG1184255
p-Isopropyltoluene	U		0.350	1.00	1	10/21/2018 21:18	WG1184255
2-Butanone (MEK)	U		3.93	10.0	1	10/21/2018 21:18	WG1184255
Methylene Chloride	U		1.00	5.00	1	10/21/2018 21:18	WG1184255
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/21/2018 21:18	WG1184255
Methyl tert-butyl ether	U		0.367	1.00	1	10/21/2018 21:18	WG1184255
Naphthalene	U		1.00	5.00	1	10/21/2018 21:18	WG1184255
n-Propylbenzene	U		0.349	1.00	1	10/21/2018 21:18	WG1184255
Styrene	U		0.307	1.00	1	10/21/2018 21:18	WG1184255
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/21/2018 21:18	WG1184255
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/21/2018 21:18	WG1184255
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	10/21/2018 21:18	WG1184255
Tetrachloroethene	U		0.372	1.00	1	10/21/2018 21:18	WG1184255
Tetrahydrofuran	U		1.82	5.00	1	10/21/2018 21:18	WG1184255
Toluene	U		0.412	1.00	1	10/21/2018 21:18	WG1184255

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2,3-Trichlorobenzene	U		0.230	1.00	1	10/21/2018 21:18	WG1184255
1,2,4-Trichlorobenzene	U		0.355	1.00	1	10/21/2018 21:18	WG1184255
1,1,1-Trichloroethane	U		0.319	1.00	1	10/21/2018 21:18	WG1184255
1,1,2-Trichloroethane	U		0.383	1.00	1	10/21/2018 21:18	WG1184255
Trichloroethene	U		0.398	1.00	1	10/21/2018 21:18	WG1184255
Trichlorofluoromethane	U		1.20	5.00	1	10/21/2018 21:18	WG1184255
1,2,3-Trichloropropane	U		0.807	2.50	1	10/21/2018 21:18	WG1184255
1,2,4-Trimethylbenzene	U		0.373	1.00	1	10/21/2018 21:18	WG1184255
1,2,3-Trimethylbenzene	U		0.321	1.00	1	10/21/2018 21:18	WG1184255
1,3,5-Trimethylbenzene	U		0.387	1.00	1	10/21/2018 21:18	WG1184255
Vinyl chloride	U		0.259	1.00	1	10/21/2018 21:18	WG1184255
Xylenes, Total	U		1.06	3.00	1	10/21/2018 21:18	WG1184255
(S) Toluene-d8	*95.5*			*80.0-120*		*10/21/2018 21:18*	WG1184255
(S) Dibromofluoromethane	*113*			*75.0-120*		*10/21/2018 21:18*	WG1184255
(S) α,α,α-Trifluorotoluene	*103*			*80.0-120*		*10/21/2018 21:18*	WG1184255
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*10/21/2018 21:18*	WG1184255

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	10/21/2018 22:02	WG1184255
Allyl chloride	U		1.70	5.00	1	10/21/2018 22:02	WG1184255
Benzene	U		0.331	1.00	1	10/21/2018 22:02	WG1184255
Bromobenzene	U		0.352	1.00	1	10/21/2018 22:02	WG1184255
Bromochloromethane	U		0.520	5.00	1	10/21/2018 22:02	WG1184255
Bromodichloromethane	U		0.380	1.00	1	10/21/2018 22:02	WG1184255
Bromoform	U		0.469	1.00	1	10/21/2018 22:02	WG1184255
Bromomethane	U		0.866	5.00	1	10/21/2018 22:02	WG1184255
n-Butylbenzene	U		0.361	1.00	1	10/21/2018 22:02	WG1184255
sec-Butylbenzene	U		0.365	1.00	1	10/21/2018 22:02	WG1184255
tert-Butylbenzene	U		0.399	1.00	1	10/21/2018 22:02	WG1184255
Carbon tetrachloride	U		0.379	1.00	1	10/21/2018 22:02	WG1184255
Chlorobenzene	U		0.348	1.00	1	10/21/2018 22:02	WG1184255
Chlorodibromomethane	U		0.327	1.00	1	10/21/2018 22:02	WG1184255
Chloroethane	U		0.453	5.00	1	10/21/2018 22:02	WG1184255
Chloroform	U		0.324	5.00	1	10/21/2018 22:02	WG1184255
Chloromethane	U		0.276	2.50	1	10/21/2018 22:02	WG1184255
2-Chlorotoluene	U		0.375	1.00	1	10/21/2018 22:02	WG1184255
4-Chlorotoluene	U		0.351	1.00	1	10/21/2018 22:02	WG1184255
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/21/2018 22:02	WG1184255
1,2-Dibromoethane	U		0.381	1.00	1	10/21/2018 22:02	WG1184255
Dibromomethane	U		0.346	1.00	1	10/21/2018 22:02	WG1184255
1,2-Dichlorobenzene	U		0.349	1.00	1	10/21/2018 22:02	WG1184255
1,3-Dichlorobenzene	U		0.220	1.00	1	10/21/2018 22:02	WG1184255
1,4-Dichlorobenzene	U		0.274	1.00	1	10/21/2018 22:02	WG1184255
Dichlorodifluoromethane	U		0.551	5.00	1	10/21/2018 22:02	WG1184255
Dichlorofluoromethane	U	J4	0.302	5.00	1	10/21/2018 22:02	WG1184255
1,1-Dichloroethane	U		0.259	1.00	1	10/21/2018 22:02	WG1184255
1,2-Dichloroethane	U		0.361	1.00	1	10/21/2018 22:02	WG1184255
1,1-Dichloroethene	U		0.398	1.00	1	10/21/2018 22:02	WG1184255
cis-1,2-Dichloroethene	U		0.260	1.00	1	10/21/2018 22:02	WG1184255
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/21/2018 22:02	WG1184255
1,2-Dichloropropane	U		0.306	1.00	1	10/21/2018 22:02	WG1184255
1,1-Dichloropropene	U		0.352	1.00	1	10/21/2018 22:02	WG1184255
1,3-Dichloropropane	U		0.366	1.00	1	10/21/2018 22:02	WG1184255
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/21/2018 22:02	WG1184255
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/21/2018 22:02	WG1184255
2,2-Dichloropropane	U		0.321	1.00	1	10/21/2018 22:02	WG1184255
Ethylbenzene	U		0.384	1.00	1	10/21/2018 22:02	WG1184255
Ethyl ether	U		0.389	1.00	1	10/21/2018 22:02	WG1184255
Hexachloro-1,3-butadiene	U		0.256	1.00	1	10/21/2018 22:02	WG1184255
Isopropylbenzene	U		0.326	1.00	1	10/21/2018 22:02	WG1184255
p-Isopropyltoluene	U		0.350	1.00	1	10/21/2018 22:02	WG1184255
2-Butanone (MEK)	U		3.93	10.0	1	10/21/2018 22:02	WG1184255
Methylene Chloride	U		1.00	5.00	1	10/21/2018 22:02	WG1184255
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/21/2018 22:02	WG1184255
Methyl tert-butyl ether	U		0.367	1.00	1	10/21/2018 22:02	WG1184255
Naphthalene	U		1.00	5.00	1	10/21/2018 22:02	WG1184255
n-Propylbenzene	U		0.349	1.00	1	10/21/2018 22:02	WG1184255
Styrene	U		0.307	1.00	1	10/21/2018 22:02	WG1184255
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/21/2018 22:02	WG1184255
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/21/2018 22:02	WG1184255
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	10/21/2018 22:02	WG1184255
Tetrachloroethene	16.6		0.372	1.00	1	10/21/2018 22:02	WG1184255
Tetrahydrofuran	U		1.82	5.00	1	10/21/2018 22:02	WG1184255
Toluene	U		0.412	1.00	1	10/21/2018 22:02	WG1184255

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2,3-Trichlorobenzene	U		0.230	1.00	1	10/21/2018 22:02	WG1184255
1,2,4-Trichlorobenzene	U		0.355	1.00	1	10/21/2018 22:02	WG1184255
1,1,1-Trichloroethane	U		0.319	1.00	1	10/21/2018 22:02	WG1184255
1,1,2-Trichloroethane	U		0.383	1.00	1	10/21/2018 22:02	WG1184255
Trichloroethene	U		0.398	1.00	1	10/21/2018 22:02	WG1184255
Trichlorofluoromethane	U		1.20	5.00	1	10/21/2018 22:02	WG1184255
1,2,3-Trichloropropane	U		0.807	2.50	1	10/21/2018 22:02	WG1184255
1,2,4-Trimethylbenzene	U		0.373	1.00	1	10/21/2018 22:02	WG1184255
1,2,3-Trimethylbenzene	U		0.321	1.00	1	10/21/2018 22:02	WG1184255
1,3,5-Trimethylbenzene	U		0.387	1.00	1	10/21/2018 22:02	WG1184255
Vinyl chloride	U		0.259	1.00	1	10/21/2018 22:02	WG1184255
Xylenes, Total	U		1.06	3.00	1	10/21/2018 22:02	WG1184255
(S) Toluene-d8	*97.2*			*80.0-120*		*10/21/2018 22:02*	WG1184255
(S) Dibromofluoromethane	*111*			*75.0-120*		*10/21/2018 22:02*	WG1184255
(S) α,α,α-Trifluorotoluene	*103*			*80.0-120*		*10/21/2018 22:02*	WG1184255
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*10/21/2018 22:02*	WG1184255

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	10/21/2018 22:24	WG1184255
Allyl chloride	U		1.70	5.00	1	10/21/2018 22:24	WG1184255
Benzene	U		0.331	1.00	1	10/21/2018 22:24	WG1184255
Bromobenzene	U		0.352	1.00	1	10/21/2018 22:24	WG1184255
Bromochloromethane	U		0.520	5.00	1	10/21/2018 22:24	WG1184255
Bromodichloromethane	U		0.380	1.00	1	10/21/2018 22:24	WG1184255
Bromoform	U		0.469	1.00	1	10/21/2018 22:24	WG1184255
Bromomethane	U		0.866	5.00	1	10/21/2018 22:24	WG1184255
n-Butylbenzene	U		0.361	1.00	1	10/21/2018 22:24	WG1184255
sec-Butylbenzene	U		0.365	1.00	1	10/21/2018 22:24	WG1184255
tert-Butylbenzene	U		0.399	1.00	1	10/21/2018 22:24	WG1184255
Carbon tetrachloride	U		0.379	1.00	1	10/21/2018 22:24	WG1184255
Chlorobenzene	U		0.348	1.00	1	10/21/2018 22:24	WG1184255
Chlorodibromomethane	U		0.327	1.00	1	10/21/2018 22:24	WG1184255
Chloroethane	U		0.453	5.00	1	10/21/2018 22:24	WG1184255
Chloroform	U		0.324	5.00	1	10/21/2018 22:24	WG1184255
Chloromethane	U		0.276	2.50	1	10/21/2018 22:24	WG1184255
2-Chlorotoluene	U		0.375	1.00	1	10/21/2018 22:24	WG1184255
4-Chlorotoluene	U		0.351	1.00	1	10/21/2018 22:24	WG1184255
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/21/2018 22:24	WG1184255
1,2-Dibromoethane	U		0.381	1.00	1	10/21/2018 22:24	WG1184255
Dibromomethane	U		0.346	1.00	1	10/21/2018 22:24	WG1184255
1,2-Dichlorobenzene	U		0.349	1.00	1	10/21/2018 22:24	WG1184255
1,3-Dichlorobenzene	U		0.220	1.00	1	10/21/2018 22:24	WG1184255
1,4-Dichlorobenzene	U		0.274	1.00	1	10/21/2018 22:24	WG1184255
Dichlorodifluoromethane	U		0.551	5.00	1	10/21/2018 22:24	WG1184255
Dichlorofluoromethane	U	J4	0.302	5.00	1	10/21/2018 22:24	WG1184255
1,1-Dichloroethane	4.47		0.259	1.00	1	10/21/2018 22:24	WG1184255
1,2-Dichloroethane	U		0.361	1.00	1	10/21/2018 22:24	WG1184255
1,1-Dichloroethene	0.457	J	0.398	1.00	1	10/21/2018 22:24	WG1184255
cis-1,2-Dichloroethene	47.8		0.260	1.00	1	10/21/2018 22:24	WG1184255
trans-1,2-Dichloroethene	1.59		0.396	1.00	1	10/21/2018 22:24	WG1184255
1,2-Dichloropropane	U		0.306	1.00	1	10/21/2018 22:24	WG1184255
1,1-Dichloropropene	U		0.352	1.00	1	10/21/2018 22:24	WG1184255
1,3-Dichloropropane	U		0.366	1.00	1	10/21/2018 22:24	WG1184255
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/21/2018 22:24	WG1184255
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/21/2018 22:24	WG1184255
2,2-Dichloropropane	U		0.321	1.00	1	10/21/2018 22:24	WG1184255
Ethylbenzene	U		0.384	1.00	1	10/21/2018 22:24	WG1184255
Ethyl ether	U		0.389	1.00	1	10/21/2018 22:24	WG1184255
Hexachloro-1,3-butadiene	U		0.256	1.00	1	10/21/2018 22:24	WG1184255
Isopropylbenzene	U		0.326	1.00	1	10/21/2018 22:24	WG1184255
p-Isopropyltoluene	U		0.350	1.00	1	10/21/2018 22:24	WG1184255
2-Butanone (MEK)	U		3.93	10.0	1	10/21/2018 22:24	WG1184255
Methylene Chloride	U		1.00	5.00	1	10/21/2018 22:24	WG1184255
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/21/2018 22:24	WG1184255
Methyl tert-butyl ether	U		0.367	1.00	1	10/21/2018 22:24	WG1184255
Naphthalene	U		1.00	5.00	1	10/21/2018 22:24	WG1184255
n-Propylbenzene	U		0.349	1.00	1	10/21/2018 22:24	WG1184255
Styrene	U		0.307	1.00	1	10/21/2018 22:24	WG1184255
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/21/2018 22:24	WG1184255
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/21/2018 22:24	WG1184255
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	10/21/2018 22:24	WG1184255
Tetrachloroethene	9.12		0.372	1.00	1	10/21/2018 22:24	WG1184255
Tetrahydrofuran	U		1.82	5.00	1	10/21/2018 22:24	WG1184255
Toluene	U		0.412	1.00	1	10/21/2018 22:24	WG1184255

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2,3-Trichlorobenzene	U		0.230	1.00	1	10/21/2018 22:24	WG1184255
1,2,4-Trichlorobenzene	U		0.355	1.00	1	10/21/2018 22:24	WG1184255
1,1,1-Trichloroethane	U		0.319	1.00	1	10/21/2018 22:24	WG1184255
1,1,2-Trichloroethane	U		0.383	1.00	1	10/21/2018 22:24	WG1184255
Trichloroethene	34.8		0.398	1.00	1	10/21/2018 22:24	WG1184255
Trichlorofluoromethane	U		1.20	5.00	1	10/21/2018 22:24	WG1184255
1,2,3-Trichloropropane	U		0.807	2.50	1	10/21/2018 22:24	WG1184255
1,2,4-Trimethylbenzene	U		0.373	1.00	1	10/21/2018 22:24	WG1184255
1,2,3-Trimethylbenzene	U		0.321	1.00	1	10/21/2018 22:24	WG1184255
1,3,5-Trimethylbenzene	U		0.387	1.00	1	10/21/2018 22:24	WG1184255
Vinyl chloride	3.23		0.259	1.00	1	10/21/2018 22:24	WG1184255
Xylenes, Total	U		1.06	3.00	1	10/21/2018 22:24	WG1184255
(S) Toluene-d8	*95.8*			*80.0-120*		*10/21/2018 22:24*	WG1184255
(S) Dibromofluoromethane	*111*			*75.0-120*		*10/21/2018 22:24*	WG1184255
(S) α,α,α-Trifluorotoluene	*103*			*80.0-120*		*10/21/2018 22:24*	WG1184255
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*10/21/2018 22:24*	WG1184255

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	42.1	J	10.0	50.0	1	10/21/2018 22:45	WG1184255
Allyl chloride	U		1.70	5.00	1	10/21/2018 22:45	WG1184255
Benzene	U		0.331	1.00	1	10/21/2018 22:45	WG1184255
Bromobenzene	U		0.352	1.00	1	10/21/2018 22:45	WG1184255
Bromochloromethane	U		0.520	5.00	1	10/21/2018 22:45	WG1184255
Bromodichloromethane	U		0.380	1.00	1	10/21/2018 22:45	WG1184255
Bromoform	U		0.469	1.00	1	10/21/2018 22:45	WG1184255
Bromomethane	U		0.866	5.00	1	10/21/2018 22:45	WG1184255
n-Butylbenzene	U		0.361	1.00	1	10/21/2018 22:45	WG1184255
sec-Butylbenzene	U		0.365	1.00	1	10/21/2018 22:45	WG1184255
tert-Butylbenzene	U		0.399	1.00	1	10/21/2018 22:45	WG1184255
Carbon tetrachloride	U		0.379	1.00	1	10/21/2018 22:45	WG1184255
Chlorobenzene	U		0.348	1.00	1	10/21/2018 22:45	WG1184255
Chlorodibromomethane	U		0.327	1.00	1	10/21/2018 22:45	WG1184255
Chloroethane	U		0.453	5.00	1	10/21/2018 22:45	WG1184255
Chloroform	U		0.324	5.00	1	10/21/2018 22:45	WG1184255
Chloromethane	U		0.276	2.50	1	10/21/2018 22:45	WG1184255
2-Chlorotoluene	U		0.375	1.00	1	10/21/2018 22:45	WG1184255
4-Chlorotoluene	U		0.351	1.00	1	10/21/2018 22:45	WG1184255
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/21/2018 22:45	WG1184255
1,2-Dibromoethane	U		0.381	1.00	1	10/21/2018 22:45	WG1184255
Dibromomethane	U		0.346	1.00	1	10/21/2018 22:45	WG1184255
1,2-Dichlorobenzene	U		0.349	1.00	1	10/21/2018 22:45	WG1184255
1,3-Dichlorobenzene	U		0.220	1.00	1	10/21/2018 22:45	WG1184255
1,4-Dichlorobenzene	U		0.274	1.00	1	10/21/2018 22:45	WG1184255
Dichlorodifluoromethane	U		0.551	5.00	1	10/21/2018 22:45	WG1184255
Dichlorofluoromethane	U	J4	0.302	5.00	1	10/21/2018 22:45	WG1184255
1,1-Dichloroethane	U		0.259	1.00	1	10/21/2018 22:45	WG1184255
1,2-Dichloroethane	U		0.361	1.00	1	10/21/2018 22:45	WG1184255
1,1-Dichloroethene	U		0.398	1.00	1	10/21/2018 22:45	WG1184255
cis-1,2-Dichloroethene	U		0.260	1.00	1	10/21/2018 22:45	WG1184255
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/21/2018 22:45	WG1184255
1,2-Dichloropropane	U		0.306	1.00	1	10/21/2018 22:45	WG1184255
1,1-Dichloropropene	U		0.352	1.00	1	10/21/2018 22:45	WG1184255
1,3-Dichloropropane	U		0.366	1.00	1	10/21/2018 22:45	WG1184255
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/21/2018 22:45	WG1184255
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/21/2018 22:45	WG1184255
2,2-Dichloropropane	U		0.321	1.00	1	10/21/2018 22:45	WG1184255
Ethylbenzene	U		0.384	1.00	1	10/21/2018 22:45	WG1184255
Ethyl ether	U		0.389	1.00	1	10/21/2018 22:45	WG1184255
Hexachloro-1,3-butadiene	U		0.256	1.00	1	10/21/2018 22:45	WG1184255
Isopropylbenzene	U		0.326	1.00	1	10/21/2018 22:45	WG1184255
p-Isopropyltoluene	U		0.350	1.00	1	10/21/2018 22:45	WG1184255
2-Butanone (MEK)	6.69	J	3.93	10.0	1	10/21/2018 22:45	WG1184255
Methylene Chloride	U		1.00	5.00	1	10/21/2018 22:45	WG1184255
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/21/2018 22:45	WG1184255
Methyl tert-butyl ether	U		0.367	1.00	1	10/21/2018 22:45	WG1184255
Naphthalene	U		1.00	5.00	1	10/21/2018 22:45	WG1184255
n-Propylbenzene	U		0.349	1.00	1	10/21/2018 22:45	WG1184255
Styrene	U		0.307	1.00	1	10/21/2018 22:45	WG1184255
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/21/2018 22:45	WG1184255
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/21/2018 22:45	WG1184255
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	10/21/2018 22:45	WG1184255
Tetrachloroethene	0.784	J	0.372	1.00	1	10/21/2018 22:45	WG1184255
Tetrahydrofuran	U		1.82	5.00	1	10/21/2018 22:45	WG1184255
Toluene	U		0.412	1.00	1	10/21/2018 22:45	WG1184255

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2,3-Trichlorobenzene	U		0.230	1.00	1	10/21/2018 22:45	WG1184255
1,2,4-Trichlorobenzene	U		0.355	1.00	1	10/21/2018 22:45	WG1184255
1,1,1-Trichloroethane	U		0.319	1.00	1	10/21/2018 22:45	WG1184255
1,1,2-Trichloroethane	U		0.383	1.00	1	10/21/2018 22:45	WG1184255
Trichloroethene	U		0.398	1.00	1	10/21/2018 22:45	WG1184255
Trichlorofluoromethane	U		1.20	5.00	1	10/21/2018 22:45	WG1184255
1,2,3-Trichloropropane	U		0.807	2.50	1	10/21/2018 22:45	WG1184255
1,2,4-Trimethylbenzene	U		0.373	1.00	1	10/21/2018 22:45	WG1184255
1,2,3-Trimethylbenzene	U		0.321	1.00	1	10/21/2018 22:45	WG1184255
1,3,5-Trimethylbenzene	U		0.387	1.00	1	10/21/2018 22:45	WG1184255
Vinyl chloride	U		0.259	1.00	1	10/21/2018 22:45	WG1184255
Xylenes, Total	U		1.06	3.00	1	10/21/2018 22:45	WG1184255
(S) Toluene-d8	*99.2*			*80.0-120*		*10/21/2018 22:45*	WG1184255
(S) Dibromofluoromethane	*109*			*75.0-120*		*10/21/2018 22:45*	WG1184255
(S) α,α,α-Trifluorotoluene	*104*			*80.0-120*		*10/21/2018 22:45*	WG1184255
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*10/21/2018 22:45*	WG1184255

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	10/21/2018 23:07	WG1184255
Allyl chloride	U		1.70	5.00	1	10/21/2018 23:07	WG1184255
Benzene	U		0.331	1.00	1	10/21/2018 23:07	WG1184255
Bromobenzene	U		0.352	1.00	1	10/21/2018 23:07	WG1184255
Bromochloromethane	U		0.520	5.00	1	10/21/2018 23:07	WG1184255
Bromodichloromethane	U		0.380	1.00	1	10/21/2018 23:07	WG1184255
Bromoform	U		0.469	1.00	1	10/21/2018 23:07	WG1184255
Bromomethane	U		0.866	5.00	1	10/21/2018 23:07	WG1184255
n-Butylbenzene	U		0.361	1.00	1	10/21/2018 23:07	WG1184255
sec-Butylbenzene	U		0.365	1.00	1	10/21/2018 23:07	WG1184255
tert-Butylbenzene	U		0.399	1.00	1	10/21/2018 23:07	WG1184255
Carbon tetrachloride	U		0.379	1.00	1	10/21/2018 23:07	WG1184255
Chlorobenzene	U		0.348	1.00	1	10/21/2018 23:07	WG1184255
Chlorodibromomethane	U		0.327	1.00	1	10/21/2018 23:07	WG1184255
Chloroethane	U		0.453	5.00	1	10/21/2018 23:07	WG1184255
Chloroform	U		0.324	5.00	1	10/21/2018 23:07	WG1184255
Chloromethane	U		0.276	2.50	1	10/21/2018 23:07	WG1184255
2-Chlorotoluene	U		0.375	1.00	1	10/21/2018 23:07	WG1184255
4-Chlorotoluene	U		0.351	1.00	1	10/21/2018 23:07	WG1184255
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/21/2018 23:07	WG1184255
1,2-Dibromoethane	U		0.381	1.00	1	10/21/2018 23:07	WG1184255
Dibromomethane	U		0.346	1.00	1	10/21/2018 23:07	WG1184255
1,2-Dichlorobenzene	U		0.349	1.00	1	10/21/2018 23:07	WG1184255
1,3-Dichlorobenzene	U		0.220	1.00	1	10/21/2018 23:07	WG1184255
1,4-Dichlorobenzene	U		0.274	1.00	1	10/21/2018 23:07	WG1184255
Dichlorodifluoromethane	U		0.551	5.00	1	10/21/2018 23:07	WG1184255
Dichlorofluoromethane	U	J4	0.302	5.00	1	10/21/2018 23:07	WG1184255
1,1-Dichloroethane	U		0.259	1.00	1	10/21/2018 23:07	WG1184255
1,2-Dichloroethane	U		0.361	1.00	1	10/21/2018 23:07	WG1184255
1,1-Dichloroethene	U		0.398	1.00	1	10/21/2018 23:07	WG1184255
cis-1,2-Dichloroethene	0.873	J	0.260	1.00	1	10/21/2018 23:07	WG1184255
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/21/2018 23:07	WG1184255
1,2-Dichloropropane	U		0.306	1.00	1	10/21/2018 23:07	WG1184255
1,1-Dichloropropene	U		0.352	1.00	1	10/21/2018 23:07	WG1184255
1,3-Dichloropropane	U		0.366	1.00	1	10/21/2018 23:07	WG1184255
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/21/2018 23:07	WG1184255
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/21/2018 23:07	WG1184255
2,2-Dichloropropane	U		0.321	1.00	1	10/21/2018 23:07	WG1184255
Ethylbenzene	U		0.384	1.00	1	10/21/2018 23:07	WG1184255
Ethyl ether	U		0.389	1.00	1	10/21/2018 23:07	WG1184255
Hexachloro-1,3-butadiene	U		0.256	1.00	1	10/21/2018 23:07	WG1184255
Isopropylbenzene	U		0.326	1.00	1	10/21/2018 23:07	WG1184255
p-Isopropyltoluene	U		0.350	1.00	1	10/21/2018 23:07	WG1184255
2-Butanone (MEK)	U		3.93	10.0	1	10/21/2018 23:07	WG1184255
Methylene Chloride	U		1.00	5.00	1	10/21/2018 23:07	WG1184255
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/21/2018 23:07	WG1184255
Methyl tert-butyl ether	U		0.367	1.00	1	10/21/2018 23:07	WG1184255
Naphthalene	U		1.00	5.00	1	10/21/2018 23:07	WG1184255
n-Propylbenzene	U		0.349	1.00	1	10/21/2018 23:07	WG1184255
Styrene	U		0.307	1.00	1	10/21/2018 23:07	WG1184255
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/21/2018 23:07	WG1184255
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/21/2018 23:07	WG1184255
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	10/21/2018 23:07	WG1184255
Tetrachloroethene	410		3.72	10.0	10	10/22/2018 16:54	WG1184516
Tetrahydrofuran	U		1.82	5.00	1	10/21/2018 23:07	WG1184255
Toluene	5.76		0.412	1.00	1	10/21/2018 23:07	WG1184255

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2,3-Trichlorobenzene	U		0.230	1.00	1	10/21/2018 23:07	WG1184255
1,2,4-Trichlorobenzene	U		0.355	1.00	1	10/21/2018 23:07	WG1184255
1,1,1-Trichloroethane	U		0.319	1.00	1	10/21/2018 23:07	WG1184255
1,1,2-Trichloroethane	U		0.383	1.00	1	10/21/2018 23:07	WG1184255
Trichloroethene	4.40		0.398	1.00	1	10/21/2018 23:07	WG1184255
Trichlorofluoromethane	U		1.20	5.00	1	10/21/2018 23:07	WG1184255
1,2,3-Trichloropropane	U		0.807	2.50	1	10/21/2018 23:07	WG1184255
1,2,4-Trimethylbenzene	U		0.373	1.00	1	10/21/2018 23:07	WG1184255
1,2,3-Trimethylbenzene	U		0.321	1.00	1	10/21/2018 23:07	WG1184255
1,3,5-Trimethylbenzene	U		0.387	1.00	1	10/21/2018 23:07	WG1184255
Vinyl chloride	U		0.259	1.00	1	10/21/2018 23:07	WG1184255
Xylenes, Total	U		1.06	3.00	1	10/21/2018 23:07	WG1184255
(S) Toluene-d8	*95.5*			*80.0-120*		*10/21/2018 23:07*	WG1184255
(S) Toluene-d8	*102*			*80.0-120*		*10/22/2018 16:54*	WG1184516
(S) Dibromofluoromethane	*112*			*75.0-120*		*10/21/2018 23:07*	WG1184255
(S) Dibromofluoromethane	*94.8*			*75.0-120*		*10/22/2018 16:54*	WG1184516
(S) a,a,a-Trifluorotoluene	*101*			*80.0-120*		*10/21/2018 23:07*	WG1184255
(S) a,a,a-Trifluorotoluene	*103*			*80.0-120*		*10/22/2018 16:54*	WG1184516
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*10/21/2018 23:07*	WG1184255
(S) 4-Bromofluorobenzene	*96.0*			*77.0-126*		*10/22/2018 16:54*	WG1184516

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		10.0	50.0	1	10/21/2018 23:29	WG1184255
Allyl chloride	U		1.70	5.00	1	10/21/2018 23:29	WG1184255
Benzene	U		0.331	1.00	1	10/21/2018 23:29	WG1184255
Bromobenzene	U		0.352	1.00	1	10/21/2018 23:29	WG1184255
Bromochloromethane	U		0.520	5.00	1	10/21/2018 23:29	WG1184255
Bromodichloromethane	U		0.380	1.00	1	10/21/2018 23:29	WG1184255
Bromoform	U		0.469	1.00	1	10/21/2018 23:29	WG1184255
Bromomethane	U		0.866	5.00	1	10/21/2018 23:29	WG1184255
n-Butylbenzene	U		0.361	1.00	1	10/21/2018 23:29	WG1184255
sec-Butylbenzene	U		0.365	1.00	1	10/21/2018 23:29	WG1184255
tert-Butylbenzene	U		0.399	1.00	1	10/21/2018 23:29	WG1184255
Carbon tetrachloride	U		0.379	1.00	1	10/21/2018 23:29	WG1184255
Chlorobenzene	U		0.348	1.00	1	10/21/2018 23:29	WG1184255
Chlorodibromomethane	U		0.327	1.00	1	10/21/2018 23:29	WG1184255
Chloroethane	U		0.453	5.00	1	10/21/2018 23:29	WG1184255
Chloroform	U		0.324	5.00	1	10/21/2018 23:29	WG1184255
Chloromethane	U		0.276	2.50	1	10/21/2018 23:29	WG1184255
2-Chlorotoluene	U		0.375	1.00	1	10/21/2018 23:29	WG1184255
4-Chlorotoluene	U		0.351	1.00	1	10/21/2018 23:29	WG1184255
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/21/2018 23:29	WG1184255
1,2-Dibromoethane	U		0.381	1.00	1	10/21/2018 23:29	WG1184255
Dibromomethane	U		0.346	1.00	1	10/21/2018 23:29	WG1184255
1,2-Dichlorobenzene	U		0.349	1.00	1	10/21/2018 23:29	WG1184255
1,3-Dichlorobenzene	U		0.220	1.00	1	10/21/2018 23:29	WG1184255
1,4-Dichlorobenzene	U		0.274	1.00	1	10/21/2018 23:29	WG1184255
Dichlorodifluoromethane	U		0.551	5.00	1	10/21/2018 23:29	WG1184255
Dichlorofluoromethane	U	J4	0.302	5.00	1	10/21/2018 23:29	WG1184255
1,1-Dichloroethane	U		0.259	1.00	1	10/21/2018 23:29	WG1184255
1,2-Dichloroethane	U		0.361	1.00	1	10/21/2018 23:29	WG1184255
1,1-Dichloroethene	U		0.398	1.00	1	10/21/2018 23:29	WG1184255
cis-1,2-Dichloroethene	U		0.260	1.00	1	10/21/2018 23:29	WG1184255
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/21/2018 23:29	WG1184255
1,2-Dichloropropane	U		0.306	1.00	1	10/21/2018 23:29	WG1184255
1,1-Dichloropropene	U		0.352	1.00	1	10/21/2018 23:29	WG1184255
1,3-Dichloropropane	U		0.366	1.00	1	10/21/2018 23:29	WG1184255
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/21/2018 23:29	WG1184255
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/21/2018 23:29	WG1184255
2,2-Dichloropropane	U		0.321	1.00	1	10/21/2018 23:29	WG1184255
Ethylbenzene	U		0.384	1.00	1	10/21/2018 23:29	WG1184255
Ethyl ether	U		0.389	1.00	1	10/21/2018 23:29	WG1184255
Hexachloro-1,3-butadiene	U		0.256	1.00	1	10/21/2018 23:29	WG1184255
Isopropylbenzene	U		0.326	1.00	1	10/21/2018 23:29	WG1184255
p-Isopropyltoluene	U		0.350	1.00	1	10/21/2018 23:29	WG1184255
2-Butanone (MEK)	U		3.93	10.0	1	10/21/2018 23:29	WG1184255
Methylene Chloride	U		1.00	5.00	1	10/21/2018 23:29	WG1184255
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/21/2018 23:29	WG1184255
Methyl tert-butyl ether	U		0.367	1.00	1	10/21/2018 23:29	WG1184255
Naphthalene	U		1.00	5.00	1	10/21/2018 23:29	WG1184255
n-Propylbenzene	U		0.349	1.00	1	10/21/2018 23:29	WG1184255
Styrene	U		0.307	1.00	1	10/21/2018 23:29	WG1184255
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	10/21/2018 23:29	WG1184255
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/21/2018 23:29	WG1184255
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	10/21/2018 23:29	WG1184255
Tetrachloroethene	108		0.372	1.00	1	10/22/2018 16:34	WG1184516
Tetrahydrofuran	U		1.82	5.00	1	10/21/2018 23:29	WG1184255
Toluene	U		0.412	1.00	1	10/21/2018 23:29	WG1184255

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2,3-Trichlorobenzene	U		0.230	1.00	1	10/21/2018 23:29	WG1184255
1,2,4-Trichlorobenzene	U		0.355	1.00	1	10/21/2018 23:29	WG1184255
1,1,1-Trichloroethane	U		0.319	1.00	1	10/21/2018 23:29	WG1184255
1,1,2-Trichloroethane	U		0.383	1.00	1	10/21/2018 23:29	WG1184255
Trichloroethene	1.31		0.398	1.00	1	10/21/2018 23:29	WG1184255
Trichlorofluoromethane	U		1.20	5.00	1	10/21/2018 23:29	WG1184255
1,2,3-Trichloropropane	U		0.807	2.50	1	10/21/2018 23:29	WG1184255
1,2,4-Trimethylbenzene	U		0.373	1.00	1	10/21/2018 23:29	WG1184255
1,2,3-Trimethylbenzene	U		0.321	1.00	1	10/21/2018 23:29	WG1184255
1,3,5-Trimethylbenzene	U		0.387	1.00	1	10/21/2018 23:29	WG1184255
Vinyl chloride	U		0.259	1.00	1	10/21/2018 23:29	WG1184255
Xylenes, Total	U		1.06	3.00	1	10/21/2018 23:29	WG1184255
(S) Toluene-d8	*95.6*			*80.0-120*		*10/21/2018 23:29*	WG1184255
(S) Toluene-d8	*99.7*			*80.0-120*		*10/22/2018 16:34*	WG1184516
(S) Dibromofluoromethane	*113*			*75.0-120*		*10/21/2018 23:29*	WG1184255
(S) Dibromofluoromethane	*93.9*			*75.0-120*		*10/22/2018 16:34*	WG1184516
(S) a,a,a-Trifluorotoluene	*102*			*80.0-120*		*10/21/2018 23:29*	WG1184255
(S) a,a,a-Trifluorotoluene	*104*			*80.0-120*		*10/22/2018 16:34*	WG1184516
(S) 4-Bromofluorobenzene	*104*			*77.0-126*		*10/21/2018 23:29*	WG1184255
(S) 4-Bromofluorobenzene	*98.4*			*77.0-126*		*10/22/2018 16:34*	WG1184516

Method Blank (MB)

(MB) R3352611-3 10/21/18 13:27

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		10.0	50.0
Benzene	U		0.331	1.00
Bromobenzene	U		0.352	1.00
Bromodichloromethane	U		0.380	1.00
Bromochloromethane	U		0.520	5.00
Bromoform	U		0.469	1.00
Bromomethane	U		0.866	5.00
n-Butylbenzene	U		0.361	1.00
sec-Butylbenzene	U		0.365	1.00
tert-Butylbenzene	U		0.399	1.00
Carbon tetrachloride	U		0.379	1.00
Chlorobenzene	U		0.348	1.00
Chlorodibromomethane	U		0.327	1.00
Chloroethane	U		0.453	5.00
Chloroform	U		0.324	5.00
Chloromethane	U		0.276	2.50
2-Chlorotoluene	U		0.375	1.00
4-Chlorotoluene	U		0.351	1.00
1,2-Dibromo-3-Chloropropane	U		1.33	5.00
1,2-Dibromoethane	U		0.381	1.00
Dibromomethane	U		0.346	1.00
1,2-Dichlorobenzene	U		0.349	1.00
1,3-Dichlorobenzene	U		0.220	1.00
1,4-Dichlorobenzene	U		0.274	1.00
Dichlorodifluoromethane	U		0.551	5.00
Dichlorofluoromethane	U		0.302	5.00
1,1-Dichloroethane	U		0.259	1.00
1,2-Dichloroethane	U		0.361	1.00
1,1-Dichloroethene	U		0.398	1.00
cis-1,2-Dichloroethene	U		0.260	1.00
trans-1,2-Dichloroethene	U		0.396	1.00
1,2-Dichloropropane	U		0.306	1.00
1,1-Dichloropropene	U		0.352	1.00
1,3-Dichloropropane	U		0.366	1.00
cis-1,3-Dichloropropene	U		0.418	1.00
trans-1,3-Dichloropropene	U		0.419	1.00
2,2-Dichloropropane	U		0.321	1.00
Ethylbenzene	U		0.384	1.00
Ethyl ether	U		0.389	1.00
Hexachloro-1,3-butadiene	U		0.256	1.00

Method Blank (MB)

(MB) R3352611-3 10/21/18 13:27

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Isopropylbenzene	U		0.326	1.00
p-Isopropyltoluene	U		0.350	1.00
2-Butanone (MEK)	U		3.93	10.0
Methylene Chloride	U		1.00	5.00
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
n-Propylbenzene	U		0.349	1.00
Styrene	U		0.307	1.00
1,1,1,2-Tetrachloroethane	U		0.385	1.00
1,1,2,2-Tetrachloroethane	U		0.130	1.00
Tetrachloroethene	U		0.372	1.00
Tetrahydrofuran	U		1.82	5.00
Toluene	U		0.412	1.00
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00
1,2,3-Trichlorobenzene	U		0.230	1.00
1,2,4-Trichlorobenzene	U		0.355	1.00
1,1,1-Trichloroethane	U		0.319	1.00
1,1,2-Trichloroethane	U		0.383	1.00
Trichloroethene	U		0.398	1.00
Trichlorofluoromethane	U		1.20	5.00
1,2,3-Trichloropropane	U		0.807	2.50
1,2,3-Trimethylbenzene	U		0.321	1.00
1,2,4-Trimethylbenzene	U		0.373	1.00
1,3,5-Trimethylbenzene	U		0.387	1.00
Vinyl chloride	U		0.259	1.00
Xylenes, Total	U		1.06	3.00
Allyl Chloride	U		1.70	5.00
(S) Toluene-d8	*104*			*80.0-120*
(S) Dibromofluoromethane	*90.7*			*75.0-120*
(S) a,a,a-Trifluorotoluene	*102*			*80.0-120*
(S) 4-Bromofluorobenzene	*99.4*			*77.0-126*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3352611-1 10/21/18 12:10 • (LCSD) R3352611-2 10/21/18 12:29

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	84.7	88.6	67.8	70.9	19.0-160			4.47	27
Benzene	25.0	22.5	22.5	89.8	90.1	70.0-123			0.368	20
Bromobenzene	25.0	24.0	24.8	95.8	99.2	73.0-121			3.49	20
Bromodichloromethane	25.0	22.7	23.0	90.8	92.0	75.0-120			1.32	20
Bromochloromethane	25.0	23.9	24.6	95.6	98.4	76.0-122			2.85	20
Bromoform	25.0	28.5	29.7	114	119	68.0-132			4.14	20
Bromomethane	25.0	20.2	21.0	80.8	84.0	10.0-160			3.97	25
n-Butylbenzene	25.0	20.9	21.3	83.5	85.4	73.0-125			2.18	20
sec-Butylbenzene	25.0	23.9	24.6	95.5	98.2	75.0-125			2.82	20
tert-Butylbenzene	25.0	25.1	25.9	101	104	76.0-124			3.12	20
Carbon tetrachloride	25.0	22.4	22.1	89.5	88.5	68.0-126			1.10	20
Chlorobenzene	25.0	26.2	26.0	105	104	80.0-121			0.842	20
Chlorodibromomethane	25.0	26.2	26.2	105	105	77.0-125			0.236	20
Chloroethane	25.0	19.3	20.1	77.3	80.3	47.0-150			3.87	20
Chloroform	25.0	21.9	22.2	87.8	88.9	73.0-120			1.22	20
Chloromethane	25.0	17.4	17.5	69.5	70.1	41.0-142			0.938	20
2-Chlorotoluene	25.0	25.3	25.8	101	103	76.0-123			2.10	20
4-Chlorotoluene	25.0	24.6	25.6	98.4	103	75.0-122			4.13	20
1,2-Dibromo-3-Chloropropane	25.0	22.8	22.7	91.0	91.0	58.0-134			0.0377	20
1,2-Dibromoethane	25.0	25.2	25.3	101	101	80.0-122			0.396	20
Dibromomethane	25.0	23.2	22.9	92.7	91.7	80.0-120			0.997	20
1,2-Dichlorobenzene	25.0	23.5	24.4	94.0	97.7	79.0-121			3.88	20
1,3-Dichlorobenzene	25.0	24.9	25.5	99.7	102	79.0-120			2.38	20
1,4-Dichlorobenzene	25.0	24.0	24.5	96.0	98.0	79.0-120			2.05	20
Dichlorodifluoromethane	25.0	20.0	17.9	79.8	71.7	51.0-149			10.7	20
Dichlorofluoromethane	25.0	21.1	22.8	84.3	91.3	65.0-133			8.02	20
1,1-Dichloroethane	25.0	21.4	21.7	85.7	86.9	70.0-126			1.32	20
1,2-Dichloroethane	25.0	19.5	19.7	78.0	78.8	70.0-128			0.993	20
1,1-Dichloroethene	25.0	25.3	25.6	101	102	71.0-124			1.01	20
cis-1,2-Dichloroethene	25.0	24.1	24.3	96.4	97.2	73.0-120			0.870	20
trans-1,2-Dichloroethene	25.0	23.1	23.3	92.5	93.3	73.0-120			0.933	20
1,2-Dichloropropane	25.0	22.9	23.2	91.7	92.9	77.0-125			1.25	20
1,1-Dichloropropene	25.0	21.9	22.0	87.8	87.9	74.0-126			0.0973	20
1,3-Dichloropropane	25.0	23.9	23.8	95.7	95.2	80.0-120			0.525	20
cis-1,3-Dichloropropene	25.0	24.2	24.6	96.9	98.6	80.0-123			1.68	20
trans-1,3-Dichloropropene	25.0	24.3	24.1	97.2	96.5	78.0-124			0.717	20
2,2-Dichloropropane	25.0	20.8	21.0	83.2	84.1	58.0-130			1.14	20
Ethylbenzene	25.0	25.7	25.5	103	102	79.0-123			0.603	20
Ethyl ether	25.0	21.7	21.5	86.6	86.0	66.0-130			0.676	20
Hexachloro-1,3-butadiene	25.0	22.0	23.6	87.9	94.4	54.0-138			7.10	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3352611-1 10/21/18 12:10 • (LCSD) R3352611-2 10/21/18 12:29

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Isopropylbenzene	25.0	25.8	26.2	103	105	76.0-127			1.41	20
p-Isopropyltoluene	25.0	23.8	25.0	95.3	99.9	76.0-125			4.70	20
2-Butanone (MEK)	125	89.0	90.1	71.2	72.1	44.0-160			1.19	20
Methylene Chloride	25.0	23.1	23.5	92.4	94.0	67.0-120			1.70	20
4-Methyl-2-pentanone (MIBK)	125	102	101	81.6	80.5	68.0-142			1.28	20
Methyl tert-butyl ether	25.0	22.2	23.1	88.7	92.3	68.0-125			4.05	20
Naphthalene	25.0	21.1	22.1	84.5	88.5	54.0-135			4.59	20
n-Propylbenzene	25.0	24.6	25.3	98.3	101	77.0-124			2.87	20
Styrene	25.0	26.6	27.3	106	109	73.0-130			2.75	20
1,1,1,2-Tetrachloroethane	25.0	26.9	27.1	107	108	75.0-125			0.712	20
1,1,2,2-Tetrachloroethane	25.0	25.5	25.1	102	100	65.0-130			1.60	20
Tetrachloroethene	25.0	27.2	26.9	109	108	72.0-132			1.21	20
Tetrahydrofuran	25.0	16.7	16.5	66.9	66.1	41.0-146			1.21	20
Toluene	25.0	24.7	24.6	98.6	98.3	79.0-120			0.339	20
1,1,2-Trichlorotrifluoroethane	25.0	26.7	26.3	107	105	69.0-132			1.64	20
1,2,3-Trichlorobenzene	25.0	22.1	23.3	88.4	93.1	50.0-138			5.19	20
1,2,4-Trichlorobenzene	25.0	22.9	23.9	91.4	95.4	57.0-137			4.28	20
1,1,1-Trichloroethane	25.0	22.7	22.8	90.7	91.3	73.0-124			0.659	20
1,1,2-Trichloroethane	25.0	25.3	25.1	101	101	80.0-120			0.610	20
Trichloroethene	25.0	25.2	25.6	101	102	78.0-124			1.25	20
Trichlorofluoromethane	25.0	20.8	20.5	83.2	82.0	59.0-147			1.40	20
1,2,3-Trichloropropane	25.0	25.3	26.2	101	105	73.0-130			3.46	20
1,2,3-Trimethylbenzene	25.0	23.1	23.7	92.6	95.0	77.0-120			2.55	20
1,2,4-Trimethylbenzene	25.0	24.6	25.2	98.2	101	76.0-121			2.69	20
1,3,5-Trimethylbenzene	25.0	25.4	25.9	102	104	76.0-122			1.98	20
Vinyl chloride	25.0	21.7	20.8	86.7	83.3	67.0-131			3.90	20
Xylenes, Total	75.0	76.8	76.0	102	101	79.0-123			1.05	20
Allyl chloride	125	118	117	94.2	94.0	72.0-128			0.221	20
(S) Toluene-d8				*101*	*100*	*80.0-120*				
(S) Dibromofluoromethane				*90.1*	*90.3*	*75.0-120*				
(S) a,a,a-Trifluorotoluene				*104*	*104*	*80.0-120*				
(S) 4-Bromofluorobenzene				*96.9*	*98.3*	*77.0-126*				

Method Blank (MB)

(MB) R3352666-3 10/21/18 16:12

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		10.0	50.0
Benzene	U		0.331	1.00
Bromobenzene	U		0.352	1.00
Bromodichloromethane	U		0.380	1.00
Bromochloromethane	U		0.520	5.00
Bromoform	U		0.469	1.00
Bromomethane	U		0.866	5.00
n-Butylbenzene	U		0.361	1.00
sec-Butylbenzene	U		0.365	1.00
tert-Butylbenzene	U		0.399	1.00
Carbon tetrachloride	U		0.379	1.00
Chlorobenzene	U		0.348	1.00
Chlorodibromomethane	U		0.327	1.00
Chloroethane	U		0.453	5.00
Chloroform	U		0.324	5.00
Chloromethane	U		0.276	2.50
2-Chlorotoluene	U		0.375	1.00
4-Chlorotoluene	U		0.351	1.00
1,2-Dibromo-3-Chloropropane	U		1.33	5.00
1,2-Dibromoethane	U		0.381	1.00
Dibromomethane	U		0.346	1.00
1,2-Dichlorobenzene	U		0.349	1.00
1,3-Dichlorobenzene	U		0.220	1.00
1,4-Dichlorobenzene	U		0.274	1.00
Dichlorodifluoromethane	U		0.551	5.00
Dichlorofluoromethane	U		0.302	5.00
1,1-Dichloroethane	U		0.259	1.00
1,2-Dichloroethane	U		0.361	1.00
1,1-Dichloroethene	U		0.398	1.00
cis-1,2-Dichloroethene	U		0.260	1.00
trans-1,2-Dichloroethene	U		0.396	1.00
1,2-Dichloropropane	U		0.306	1.00
1,1-Dichloropropene	U		0.352	1.00
1,3-Dichloropropane	U		0.366	1.00
cis-1,3-Dichloropropene	U		0.418	1.00
trans-1,3-Dichloropropene	U		0.419	1.00
2,2-Dichloropropane	U		0.321	1.00
Ethylbenzene	U		0.384	1.00
Ethyl ether	U		0.389	1.00
Hexachloro-1,3-butadiene	U		0.256	1.00

Method Blank (MB)

(MB) R3352666-3 10/21/18 16:12

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Isopropylbenzene	U		0.326	1.00
p-Isopropyltoluene	U		0.350	1.00
2-Butanone (MEK)	U		3.93	10.0
Methylene Chloride	U		1.00	5.00
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
n-Propylbenzene	U		0.349	1.00
Styrene	U		0.307	1.00
1,1,1,2-Tetrachloroethane	U		0.385	1.00
1,1,2,2-Tetrachloroethane	U		0.130	1.00
Tetrachloroethene	U		0.372	1.00
Tetrahydrofuran	U		1.82	5.00
Toluene	U		0.412	1.00
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00
1,2,3-Trichlorobenzene	U		0.230	1.00
1,2,4-Trichlorobenzene	U		0.355	1.00
1,1,1-Trichloroethane	U		0.319	1.00
1,1,2-Trichloroethane	U		0.383	1.00
Trichloroethene	U		0.398	1.00
Trichlorofluoromethane	U		1.20	5.00
1,2,3-Trichloropropane	U		0.807	2.50
1,2,3-Trimethylbenzene	U		0.321	1.00
1,2,4-Trimethylbenzene	U		0.373	1.00
1,3,5-Trimethylbenzene	U		0.387	1.00
Vinyl chloride	U		0.259	1.00
Xylenes, Total	U		1.06	3.00
Allyl Chloride	U		1.70	5.00
(S) Toluene-d8	*97.4*			*80.0-120*
(S) Dibromofluoromethane	*108*			*75.0-120*
(S) a,a,a-Trifluorotoluene	*99.8*			*80.0-120*
(S) 4-Bromofluorobenzene	*99.9*			*77.0-126*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3352666-1 10/21/18 14:37 • (LCSD) R3352666-2 10/21/18 14:59

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	163	170	131	136	19.0-160			4.21	27
Benzene	25.0	26.3	23.7	105	94.9	70.0-123			10.3	20
Bromobenzene	25.0	25.8	23.4	103	93.8	73.0-121			9.38	20
Bromodichloromethane	25.0	27.5	24.7	110	98.9	75.0-120			10.8	20
Bromochloromethane	25.0	26.4	23.8	106	95.3	76.0-122			10.4	20
Bromoform	25.0	27.2	24.5	109	97.9	68.0-132			10.6	20
Bromomethane	25.0	25.5	23.8	102	95.1	10.0-160			7.14	25
n-Butylbenzene	25.0	25.2	22.7	101	90.6	73.0-125			10.5	20
sec-Butylbenzene	25.0	25.7	23.0	103	91.8	75.0-125			11.3	20
tert-Butylbenzene	25.0	25.5	23.0	102	92.1	76.0-124			10.4	20
Carbon tetrachloride	25.0	27.8	24.5	111	97.9	68.0-126			12.5	20
Chlorobenzene	25.0	24.7	22.2	98.9	88.6	80.0-121			11.0	20
Chlorodibromomethane	25.0	26.2	23.6	105	94.4	77.0-125			10.5	20
Chloroethane	25.0	26.6	24.1	106	96.3	47.0-150			10.0	20
Chloroform	25.0	27.9	24.7	111	98.6	73.0-120			12.2	20
Chloromethane	25.0	31.2	28.0	125	112	41.0-142			10.7	20
2-Chlorotoluene	25.0	26.1	23.5	105	94.0	76.0-123			10.6	20
4-Chlorotoluene	25.0	26.3	23.8	105	95.1	75.0-122			9.96	20
1,2-Dibromo-3-Chloropropane	25.0	24.3	21.8	97.1	87.1	58.0-134			10.8	20
1,2-Dibromoethane	25.0	25.0	22.4	100	89.5	80.0-122			11.3	20
Dibromomethane	25.0	27.9	24.5	112	98.0	80.0-120			13.1	20
1,2-Dichlorobenzene	25.0	24.8	22.4	99.0	89.5	79.0-121			10.2	20
1,3-Dichlorobenzene	25.0	25.1	22.2	100	88.7	79.0-120			12.4	20
1,4-Dichlorobenzene	25.0	24.3	22.0	97.2	88.1	79.0-120			9.78	20
Dichlorodifluoromethane	25.0	27.7	28.7	111	115	51.0-149			3.66	20
Dichlorofluoromethane	25.0	33.7	30.3	135	121	65.0-133	J4		10.7	20
1,1-Dichloroethane	25.0	28.3	25.2	113	101	70.0-126			11.5	20
1,2-Dichloroethane	25.0	29.8	26.6	119	107	70.0-128			11.2	20
1,1-Dichloroethene	25.0	25.8	23.3	103	93.2	71.0-124			10.0	20
cis-1,2-Dichloroethene	25.0	26.3	23.2	105	92.9	73.0-120			12.5	20
trans-1,2-Dichloroethene	25.0	27.0	24.3	108	97.3	73.0-120			10.5	20
1,2-Dichloropropane	25.0	26.1	22.9	104	91.6	77.0-125			13.0	20
1,1-Dichloropropene	25.0	26.6	24.5	106	98.1	74.0-126			8.23	20
1,3-Dichloropropane	25.0	24.5	22.4	98.1	89.5	80.0-120			9.17	20
cis-1,3-Dichloropropene	25.0	24.7	22.4	98.9	89.8	80.0-123			9.66	20
trans-1,3-Dichloropropene	25.0	25.5	22.6	102	90.2	78.0-124			12.3	20
2,2-Dichloropropane	25.0	28.0	24.6	112	98.4	58.0-130			12.9	20
Ethylbenzene	25.0	25.0	22.2	99.9	88.7	79.0-123			11.9	20
Ethyl ether	25.0	28.5	25.1	114	100	66.0-130			12.7	20
Hexachloro-1,3-butadiene	25.0	21.9	21.3	87.7	85.2	54.0-138			2.91	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3352666-1 10/21/18 14:37 • (LCSD) R3352666-2 10/21/18 14:59

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Isopropylbenzene	25.0	26.2	23.6	105	94.5	76.0-127			10.3	20
p-Isopropyltoluene	25.0	26.0	23.0	104	91.9	76.0-125			12.4	20
2-Butanone (MEK)	125	150	141	120	113	44.0-160			6.00	20
Methylene Chloride	25.0	26.1	23.0	104	92.0	67.0-120			12.5	20
4-Methyl-2-pentanone (MIBK)	125	142	127	113	102	68.0-142			10.9	20
Methyl tert-butyl ether	25.0	28.7	24.8	115	99.1	68.0-125			14.8	20
Naphthalene	25.0	22.5	20.6	90.2	82.6	54.0-135			8.81	20
n-Propylbenzene	25.0	25.8	23.3	103	93.2	77.0-124			10.1	20
Styrene	25.0	26.6	24.2	107	96.9	73.0-130			9.43	20
1,1,1,2-Tetrachloroethane	25.0	26.3	23.7	105	94.9	75.0-125			10.3	20
1,1,2,2-Tetrachloroethane	25.0	24.9	22.6	99.6	90.6	65.0-130			9.54	20
Tetrachloroethene	25.0	22.7	20.4	91.0	81.7	72.0-132			10.8	20
Tetrahydrofuran	25.0	24.7	23.4	98.7	93.7	41.0-146			5.24	20
Toluene	25.0	24.0	21.9	96.0	87.7	79.0-120			9.10	20
1,1,2-Trichlorotrifluoroethane	25.0	24.2	24.2	96.6	96.6	69.0-132			0.0135	20
1,2,3-Trichlorobenzene	25.0	22.5	20.5	90.2	82.1	50.0-138			9.40	20
1,2,4-Trichlorobenzene	25.0	23.6	21.7	94.6	86.9	57.0-137			8.48	20
1,1,1-Trichloroethane	25.0	29.1	26.0	116	104	73.0-124			11.0	20
1,1,2-Trichloroethane	25.0	24.3	22.2	97.3	88.9	80.0-120			9.10	20
Trichloroethene	25.0	26.3	23.6	105	94.5	78.0-124			10.7	20
Trichlorofluoromethane	25.0	31.0	29.2	124	117	59.0-147			6.23	20
1,2,3-Trichloropropane	25.0	27.5	25.1	110	101	73.0-130			8.79	20
1,2,3-Trimethylbenzene	25.0	26.0	23.2	104	92.8	77.0-120			11.3	20
1,2,4-Trimethylbenzene	25.0	26.2	23.3	105	93.3	76.0-121			11.7	20
1,3,5-Trimethylbenzene	25.0	26.5	24.0	106	96.1	76.0-122			9.94	20
Vinyl chloride	25.0	28.5	26.9	114	108	67.0-131			5.77	20
Xylenes, Total	75.0	74.6	65.9	99.5	87.9	79.0-123			12.4	20
Allyl chloride	125	138	122	111	97.6	72.0-128			12.7	20
(S) Toluene-d8				*96.5*	*96.1*	*80.0-120*				
(S) Dibromofluoromethane				*108*	*107*	*75.0-120*				
(S) a,a,a-Trifluorotoluene				*102*	*99.1*	*80.0-120*				
(S) 4-Bromofluorobenzene				*102*	*103*	*77.0-126*				

Method Blank (MB)

(MB) R3353167-4 10/22/18 10:13

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Tetrachloroethene	U		0.372	1.00
(S) Toluene-d8	*103*			*80.0-120*
(S) Dibromofluoromethane	*90.3*			*75.0-120*
(S) a,a,a-Trifluorotoluene	*105*			*80.0-120*
(S) 4-Bromofluorobenzene	*97.2*			*77.0-126*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3353167-1 10/22/18 08:55 • (LCSD) R3353167-2 10/22/18 09:15

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Tetrachloroethene	25.0	28.6	28.6	114	114	72.0-132			0.0116	20
(S) Toluene-d8				*102*	*100*	*80.0-120*				
(S) Dibromofluoromethane				*91.1*	*90.4*	*75.0-120*				
(S) a,a,a-Trifluorotoluene				*102*	*102*	*80.0-120*				
(S) 4-Bromofluorobenzene				*97.1*	*98.3*	*77.0-126*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J4	The associated batch QC was outside the established quality control range for accuracy.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

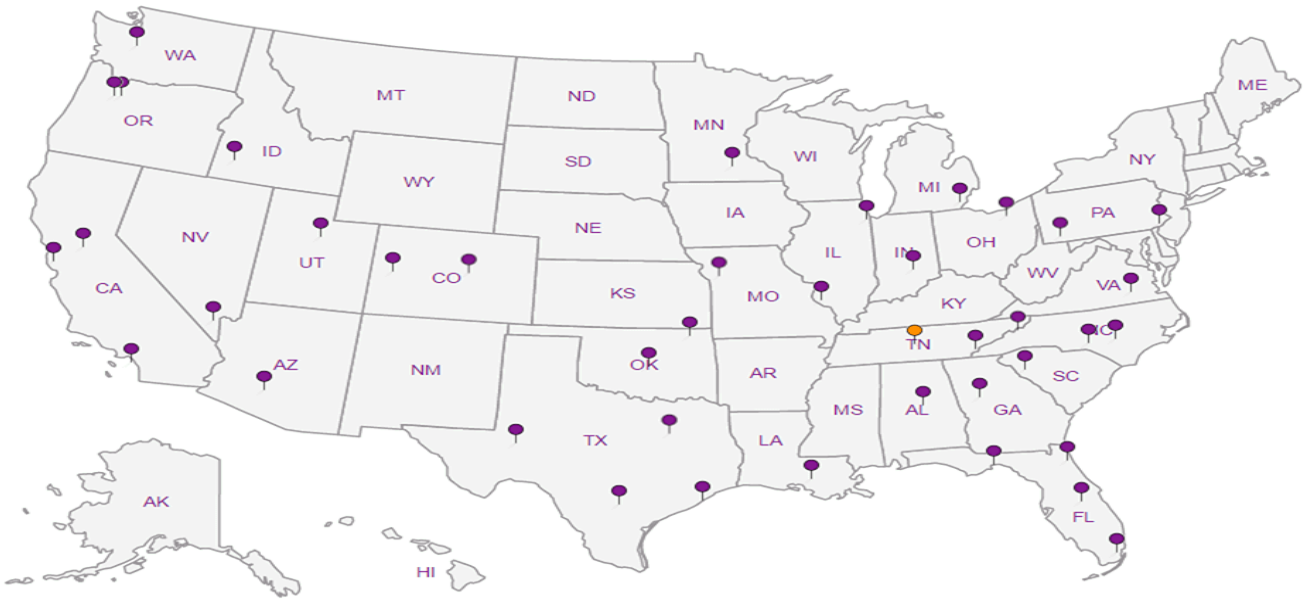
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Chain of Custody

Pace Analytical
www.pacelabs.com

Workorder: 10451928 **Workorder Name:** 18-01251 Landmark-KurtMfg 2H18 **Results Requested By:** 10/30/2018

Report / Invoice To	Subcontract To
Jennifer Anderson Pace Analytical Minnesota 1700 Elm Street Suite 200 Minneapolis, MN 55414 Phone (612)607-6436 Email: jennifer.anderson@pacelabs.com	Pace National 12065 Lebanon Road Mt. Juliet, TN 37122 P.O. 10451928

State of Sample Origin: MN

Item	Sample ID	Collect Date/Time	Lab ID	Matrix	Preserved Containers: HCl VG9H	8260B MSV 465 W	LAB USE ONLY
1	Deep Production Well	10/15/2018 09:55	10451928001	Water	4	X	-01
2	PC-1	10/15/2018 10:45	10451928002	Water	4	X	-02
3	PC-2	10/15/2018 11:35	10451928003	Water	4	X	-03
4	Well B	10/15/2018 12:30	10451928004	Water	4	X	-04
5	MW-10	10/15/2018 13:20	10451928005	Water	4	X	-05
6	MW-12	10/15/2018 14:10	10451928006	Water	4	X	-06
7	MW-1	10/15/2018 14:45	10451928007	Water	4	X	-07
8	MW-4	10/15/2018 15:20	10451928008	Water	4	X	-08
9	MW-15	10/16/2018 09:00	10451928009	Water	4	X	-09
10	MW-8	10/16/2018 09:45	10451928010	Water	4	X	-10
11	MW-2	10/16/2018 10:15	10451928011	Water	4	X	-11
12	MW-9	10/16/2018 10:55	10451928012	Water	4	X	-12
13	MW-5	10/16/2018 11:35	10451928013	Water	4	X	-13
14	MW-13	10/16/2018 12:25	10451928014	Water	4	X	-14
15	MW-14	10/16/2018 12:55	10451928015	Water	4	X	-15
16	MW-7	10/16/2018 13:45	10451928016	Water	4	X	-16
17	MW-3	10/16/2018 14:20	10451928017	Water	4	X	-17
18	Recovery Well C	10/16/2018 14:55	10451928018	Water	4	X	-18
19	MW-6	10/16/2018 15:45	10451928019	Water	4	X	-19
20							
21							

B163

L1036830

OK

0.1 + 0.5 = 0.6 cc's COC SF

RAD SCREEN: <0.5 mR/hr

L1036830

22					
23					

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1	Fed Ex/Pace	10/19/18 1755	Vik Faiss	10/20/18 0845	
2					OK
3	0.1+0.5				

Cooler Temperature on Receipt 0.6 °C | Custody Seal (Y) or N | Received on Ice (Y) or N | Samples Intact (Y) or N

a
7

FedEx = 4638 0193 2883
Rec = 76 noTB

RAD SCREEN: <0.5 mR/hr

L1036830

Pace Analytical	Document Name: Sample Condition Upon Receipt Form	Document Revised: 02May2018 Page 1 of 2
	Document No.: F-MN-L-213-rev.23	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: Landmark Environmental

Project #: **WO#: 10451928**

PM: JMA Due Date: 10/23/18

CLIENT: PASI-MNFLD

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace ☐ SpeeDee ☐ Other:

Tracking Number:

Custody Seal on Cooler/Box Present? ☐ Yes ☑ No Seals Intact? ☐ Yes ☑ No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other: Temp Blank? ☐ Yes ☑ No

Thermometer Used: ☑ G87A9170600254 ☐ G87A9155100842 Type of Ice: ☑ Wet ☐ Blue ☐ None ☐ Dry ☐ Melted

Cooler Temp Read (°C): 5.2 Cooler Temp Corrected (°C): 5.4 Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Temp should be above freezing to 6°C Correction Factor: +0.2 Date and Initials of Person Examining Contents: 10/16/18 CS

USDA Regulated Soil (☑ N/A, water sample)

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present?	☑ Yes	☐ No		1.
Chain of Custody Filled Out?	☑ Yes	☐ No		2.
Chain of Custody Relinquished?	☑ Yes	☐ No		3.
Sampler Name and/or Signature on COC?	☑ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time?	☑ Yes	☐ No		5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☑ No		6.
Rush Turn Around Time Requested?	☐ Yes	☑ No		7.
Sufficient Volume?	☑ Yes	☐ No		8.
Correct Containers Used? -Pace Containers Used?	☑ Yes ☑ Yes	☐ No ☐ No		9.
Containers Intact?	☑ Yes	☐ No		10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☑ N/A	11. Note if sediment is visible in the dissolved container
Is sufficient information available to reconcile the samples to the COC? Matrix: WT	☑ Yes	☐ No		12.
All containers needing acid/base preservation have been checked? All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, <2pH, NaOH >9 Sulfide, NaOH>12 Cyanide) Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxin/PFAS	☐ Yes ☐ Yes ☑ Yes	☐ No ☐ No ☐ No	☑ N/A ☑ N/A ☐ N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH Positive for Res. Chlorine? Y N Sample # Initial when completed: Lot # of added preservative:
Headspace in VOA Vials (>6mm)?	☐ Yes	☑ No	☐ N/A	14. See exceptions
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	15.
Trip Blank Custody Seals Present? Pace Trip Blank Lot # (if purchased): NA	☐ Yes	☐ No	☑ N/A	

CLIENT NOTIFICATION/RESOLUTION

Person Contacted: Date/Time: Field Data Required? ☐ Yes ☐ No

Comments/Resolution:

Project Manager Review: Date: 10/17/2018

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers).

label: Kong

4036838

Pace Analytical	Document Name: Headspace Exception	Document Revised: 06Nov2017 Page 1 of 1
	Document No.: F-MN-C-276-Rev.00	Issuing Authority: Pace Minnesota Quality Office

Sample ID	Headspace > 6mm	Headspace < 6mm	No Headspace	Total Vials
Deep Production	0	2	2	4
PC-1	0	0	4	4
PC-2	0	0	4	4
Well B	0	0	4	4
mw-10	0	0	4	4
mw-12	0	0	4	4
mw-1	0	0	4	4
mw-4	0	0	4	4
mw-13	0	0	4	4
mw-8	0	0	4	4
mw-2	0	0		4
mw-9	0	0	4	4

L1036830

Pace Analytical	Document Name: **Headspace Exception**	Document Revised: 06Nov2017 Page 1 of 1
	Document No.: **F-MN-C-276-Rev.00**	Issuing Authority: Pace Minnesota Quality Office

Sample ID	Headspace > 6mm	Headspace < 6mm	No Headspace	Total Vials
MW-5	0	0	4	4
MW-13	0	0	4	4
MW-14	0	0	4	4
MW-7	0	0	4	4
MW-3	0	0	4	4
Well-C	0	0	4	4
MW-6	0	0	4	4

Pace Analytical National Center for Testing & Innovation
Cooler Receipt Form

Client: PACEMN	SDG#	L1036830	
Cooler Received/Opened On: 10/ 20/18	Temperature:	0.6	
Received By: Brock Fariss			
Signature: Brock Fariss			

Receipt Check List	NP	Yes	No
COC Seal Present / Intact?		✓	
COC Signed / Accurate?		✓	
Bottles arrive intact?		✓	
Correct bottles used?		✓	
Sufficient volume sent?		✓	
If Applicable		✓	
VOA Zero headspace?			
Preservation Correct / Checked?			

Pace Analytical
Field Services Division

Pace Analytical Services, LLC
1700 Elm Street SE
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6388
www.pacelabs.com

November 09, 2018

Mr. Jason Skramstad
Landmark Environmental
2042 W. 98th Street
Bloomington, MN 55431

ACCREDITED
Cert #3819.01 (ISO/IEC 17025:2005)

NEFAP ACCREDITED
FIELD SAMPLING & MEASUREMENT ORGANIZATION
TNI

RE: Client Project ID: Field Proj. # 18-01251 / Kurt Mfg. 2nd ½ 2018
Lab Project ID: 10451928

Dear Mr. Skramstad:

Enclosed is the report of laboratory analysis for samples collected October 15-16, 2018 from the Kurt Mfg. site in Fridley, MN, for the second half of 2018. Nineteen wells were sampled and analyzed for 8260 VOC's, and Ethane, Ethene.

Copies of our Chain-of-Custody forms and the Field Data Sheets are provided. Footnotes are given at the end of the report. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

David Anderson

David J. Anderson
Project Manager
(612) 607-6377

State of Minnesota: Lab 027-053-0137

Landmark Environ. - Kurt Mfg, 2H2018
Field Proj.# 18-01251

Pace Analytical® Field Services Division

pH and Conductivity

Field Calibration and Verification Sheet

Technician(s) DJA Date 10/15/18 Page 1 of 1

Meter Make YSI 556 Meter ID MPS-5

pH

Initial Calibration (IC)

Buffer Value	Manufacturer	Lot No.	Exp. Date	Meter Value	Temp (°C)	Time	Initials
4.0	ERA	010916	03/2020	3.99	22.0	0800	DJA
7.0	ERA	310817	08/2019	7.02	22.0	0800	DJA
10.0	ERA	230916	03/2020	10.03	22.0	0800	DJA

IC Slope (%) NA (Pass) / Fail (Acceptable Slope: 92-102%)

Initial Calibration Verification (ICV)

Buffer Value	Manufacturer	Lot No.	Exp. Date	Meter Value	Temp (°C)	Time	Initials
7.0	RICCA	1801600	01/2020	7.03	22.0	0810	DJA

(Pass) / Fail (ICV acceptable if ± 0.1 s.u. of buffer value)

Continuing Calibration Verification (CCV)

See Below ☒ See Field Data Log Sheet ☐ See Raw Data (continuous pH) ☐

Buffer Value	Manufacturer	Lot No.	Exp. Date	Meter Value	Temp (°C)	Time	Initials
7.0	ERA	310817	08/2019	7.04	17.5	1530	DJA

(Pass) / Fail (CCV acceptable if ± 0.1 s.u. of buffer value)

Conductivity

Initial Calibration (IC)

High Standard Value: 997
Mfg. Fisher
Lot No. CC16980
Exp. Date 03/2019

Meter Result (µS/cm)	Temp (°C)
997	22.0

Initial Cal. Verification (ICV)

Low Standard Value: 100
Mfg. Fisher
Lot No. CC16862
Exp. Date 02/2019

Meter Result (µS/cm)	Temp (°C)
99	22.0

Meter Make YSI 556 ID MPS-5
IC/ICV Time 0815
Initials DJA
ICV: (Pass) / Fail
(ICV acceptable if ± 5% of standard value or 10 µS/cm, which ever is greater)

Continuing Calibration Verification (CCV)

Time 1535 Initials DJA Std. Value 997 ☒ High Standard ☐ Low Standard
Result (µS/cm) 996 Temp (°C) 17.5 CCV: (Pass) / Fail
(CCV acceptable if ± 5% of standard value or 10 µS/cm, which ever is greater)

Time DJA 10/15/18 Initials ____ Std. Value ____ ☐ High Standard ☐ Low Standard
Result (µS/cm) ____ Temp (°C) ____ CCV: Pass / Fail
(CCV acceptable if ± 5% of standard value or 10 µS/cm, which ever is greater)

Time ____ Initials ____ Std. Value ____ ☐ High Standard ☐ Low Standard
Result (µS/cm) ____ Temp (°C) ____ CCV: Pass / Fail
(CCV acceptable if ± 5% of standard value or 10 µS/cm, which ever is greater)

Form Revised: 11/13/2013

Lead Technician Signature: David Anderson Date: 10/15/18

Landmark Environ. - Kurt Mfg. 2H2018
Field Proj.# 18-01251

Pace Analytical® Field Services Division

pH and Conductivity

Field Calibration and Verification Sheet

Technician(s) DJA Date 10/16/18 Page 1 of 1

Meter Make YSI 556 Meter ID MPS-5

pH

Initial Calibration (IC)

Buffer Value	Manufacturer	Lot No.	Exp. Date	Meter Value	Temp (°C)	Time	Initials
4.0	ERA	010916	03/2020	3.98	21.5	0730	DJA
7.0	ERA	310817	08/2019	7.02	21.5	0730	DJA
10.0	ERA	230916	03/2020	10.05	21.5	0730	DJA

IC Slope (%) NA (Pass) / Fail (Acceptable Slope: 92-102%)

Initial Calibration Verification (ICV)

Buffer Value	Manufacturer	Lot No.	Exp. Date	Meter Value	Temp (°C)	Time	Initials
7.0	RICCA	1801600	01/2020	7.04	21.5	0740	DJA

(Pass) / Fail (ICV acceptable if ± 0.1 s.u. of buffer value)

Continuing Calibration Verification (CCV)

See Below ☒ See Field Data Log Sheet ☐ See Raw Data (continuous pH) ☐

Buffer Value	Manufacturer	Lot No.	Exp. Date	Meter Value	Temp (°C)	Time	Initials
7.0	ERA	310817	08/2019	7.05	19.0	1555	DJA

(Pass) / Fail (CCV acceptable if ± 0.1 s.u. of buffer value)

Conductivity

Initial Calibration (IC)

High Standard Value: 997

Mfg. Fisher
Lot No. CC16980
Exp. Date 03/2019

Meter Result (µS/cm)	Temp (°C)
996	21.5

Initial Cal. Verification (ICV)

Low Standard Value: 100

Mfg. Fisher
Lot No. CC16862
Exp. Date 02/2019

Meter Result (µS/cm)	Temp (°C)
98	21.5

Meter Make YSI 556 ID MPS-5
IC/ICV Time 0745
Initials DJA

ICV: (Pass) / Fail
(ICV acceptable if ± 5% of standard value or 10 µS/cm, which ever is greater)

Continuing Calibration Verification (CCV)

Time 1600 Initials DJA Std. Value 997 ☒ High Standard ☐ Low Standard
Result (µS/cm) 996 Temp (°C) 19.0 CCV: (Pass) / Fail (CCV acceptable if ± 5% of standard value or 10 µS/cm, which ever is greater)

Time DJA 10/16/18 Initials ____ Std. Value ____ ☐ High Standard ☐ Low Standard
Result (µS/cm) ____ Temp (°C) 8 CCV: Pass / Fail (CCV acceptable if ± 5% of standard value or 10 µS/cm, which ever is greater)

Time ____ Initials ____ Std. Value ____ ☐ High Standard ☐ Low Standard
Result (µS/cm) ____ Temp (°C) ____ CCV: Pass / Fail (CCV acceptable if ± 5% of standard value or 10 µS/cm, which ever is greater)

Form Revised: 11/13/2013

Lead Technician Signature: David Anderson Date: 10/16/18

Pace Analytical® Field Services Division

Well Sampling Field Data Log Sheet

Client Landmark Environ. **Project** Kurt Mfg. 2H2018 **Project No.** 18-01251

Well Description and Presampling Information

Monitoring Point ID Deep Production Well Labeled No

Inside Diameter 8 (inches) Key # A-112 ☒ Locked ☐ Not Locked

Casing Material: ☐ PVC ☒ Steel ☐ Stainless Steel

Depth Measurement and Elevations (from top of well casing)

Top of Casing Elevation NA Feet

Total Well Depth 350 Feet (estimate)

Static water level measurement before purging (Start Depth) 28.78 Feet

Static water level measurement at time of sampling (Final Depth) 28.78 Feet

Static Water Level Elevation Before Purging NA Feet

Purge Method Grundfos redi flo 2 @ 225' Pump ID SP-1

Date Purged 10/15/18 Water Column 321.22 Feet

Time Purged 0935-0950 One Casing Volume 838 Gallons

Pump Rate 0.5 GPM / (LPM) Volume Purged 7.5 ~~Gallons~~ Liters

Field Sampling Data

Date Sampled 10/15/18

Time Sampled 0955

Sampling Equip. above pump

Meter ID MPS-5

Analyzed by DJA

Field Parameter Measurements of Sample

pH 7.8 (units) D.O NA (mg/l)

Spec. Cond. 470 (µmhos/cm) Turbidity NA (NTU)

Temp. 13.0 (°C) Eh NA (mV)

Other NA

Field Measurements Temp. Corrected: ☒ Yes ☐ No ☐ NA

Sample for Soluble Metals Filtered in Field: ☐ Yes ☐ No ☒ NA

Weather Conditions During Sampling: 40° & cloudy, wind NW 10

Sample Description: clear & odorless

Observations: Purged and sampled using Low-Flow Sampling method @ 0.5 Liters/minute.

Stabilization Test

Time	pH (units)	Specific Conductance (µmhos/cm)	Temp (°C)	D.O (mg/l)	Turbidity (NTU)	Eh (mV)	Volume Purged (cumulative ~~gal~~ L)
0940	7.7	470	12.5	NA	NA	NA	2.5 L
0945	7.7	470	13.0	NA	NA	NA	5.0 L
0950	7.8	470	13.0	NA	NA	NA	7.5 L

DJA 10/15/18

Samples chilled immediately after collection ☒ Yes ☐ Other

Form Revised: 01/25/2018

Name/Affiliation of Sampler(s): David Anderson / Pace Analytical

Lead Technician Signature: David Anderson Date: 10/15/18

Pace Analytical® Field Services Division

Well Sampling Field Data Log Sheet

Well Description and Presampling Information

Client Landmark Environ. Project Kurt Mfg. 2H2018 Project No. 18-01251

Monitoring Point ID PC-1 Labeled PC-1

Inside Diameter 4 (inches) Key # A-112 ☒ Locked ☐ Not Locked

Casing Material: ☐ PVC ☒ Steel ☐ Stainless Steel

Depth Measurement and Elevations (from top of well casing)

Top of Casing Elevation NA Feet

Total Well Depth 160.66 Feet

Static water level measurement before purging (Start Depth) 30.40 Feet

Static water level measurement at time of sampling (Final Depth) 30.40 Feet

Static Water Level Elevation Before Purging NA Feet

Purge Method Grundfos redi flo 2 Pump ID SP-1

Date Purged 10-15-18 Water Column 130.26 Feet

Time Purged 1030 - 1039 One Casing Volume 85.1 Gallons

Pump Rate 0.5 GPM / (LPM) Volume Purged 4.5 ~~Gallons~~ Liters

Field Sampling Data

Date Sampled 10-15-18

Time Sampled 1045

Sampling Equip. above pump

Meter ID MPS-5

Analyzed by DJA

Field Parameter Measurements of Sample

pH 7.3 (units) D.O NA (mg/l)

Spec. Cond. 580 (µmhos/cm) Turbidity NA (NTU)

Temp. 11.5 (°C) Eh NA (mV)

Other NA

Field Measurements Temp. Corrected: ☒ Yes ☐ No ☐ NA

Sample for Soluble Metals Filtered in Field: ☐ Yes ☐ No ☒ NA

Weather Conditions During Sampling: 40°+ partly cloudy, wind NW 10

Sample Description: clear + odorless

Observations: Purged and sampled using Low-Flow Sampling method @ 0.5 Liters/minute

Stabilization Test

Time	pH (units)	Specific Conductance (µmhos/cm)	Temp (°C)	D.O (mg/l)	Turbidity (NTU)	Eh (mV)	Volume Purged (cumulative ~~gal~~ L)
1033	7.3	580	11.0	NA	NA	NA	1.5 L
1036	7.3	580	11.0	NA	NA	NA	3.0 L
1039	7.3	580	11.5	NA	NA	NA	4.5 L
			DJA	10/15/18			

Samples chilled immediately after collection: ☒ Yes ☐ Other

Form Revised: 01/25/2018

Name/Affiliation of Sampler(s): David Anderson / Pace Analytical

Lead Technician Signature: David Anderson Date: 10/15/18

Pace Analytical® Field Services Division

Well Sampling Field Data Log Sheet

Well Description and Presampling Information

Client Landmark Environ. Project Kurt Mfg. 2H2018 Project No. 18-01251

Monitoring Point ID PC-2 Labeled PC-2

Inside Diameter _____ (inches) Key # A-112 ☒ Locked ☐ Not Locked

Casing Material: ☐ PVC ☒ Steel ☐ Stainless Steel

Depth Measurement and Elevations (from top of well casing)

Top of Casing Elevation NA Feet

Total Well Depth 157.88 Feet

Static water level measurement before purging (Start Depth) 28.37 Feet

Static water level measurement at time of sampling (Final Depth) 28.37 Feet

Static Water Level Elevation Before Purging NA Feet

Purge Method Grundfos redi flo 2 Pump ID SP-1

Date Purged 10-15-18 Water Column 129.51 Feet

Time Purged 1126 - 1129 One Casing Volume 84.6 Gallons

Pump Rate 0.5 GPM / (LPM) Volume Purged 4.5 ~~Gallons~~ Liters

Field Sampling Data

Date Sampled 10-15-18

Time Sampled 1135

Sampling Equip. above pump

Meter ID MPS-5

Analyzed by DJA

Field Parameter Measurements of Sample

pH 7.1 (units) D.O NA (mg/l)

Spec. Cond. 230 (µmhos/cm) Turbidity NA (NTU)

Temp. 11.5 (°C) Eh NA (mV)

Other NA

Field Measurements Temp. Corrected: ☒ Yes ☐ No ☐ NA

Sample for Soluble Metals Filtered in Field: ☐ Yes ☐ No ☒ NA

Weather Conditions During Sampling: 40°+ partly cloudy, wind NW 10

Sample Description: clear + odorless

Observations: Purged and sampled using Low-Flow Sampling method @ 0.5 Liters/minute

Stabilization Test

Time	pH (units)	Specific Conductance (µmhos/cm)	Temp (°C)	D.O (mg/l)	Turbidity (NTU)	Eh (mV)	Volume Purged (cumulative ~~gal~~ L)
1123	7.0	230	11.0	NA	NA	NA	1.5 L
1126	7.1	230	11.5	NA	NA	NA	3.0 L
1129	7.1	230	11.5	NA	NA	NA	4.5 L

DNA 10/15/18

Samples chilled immediately after collection: ☒ Yes ☐ Other _____

Form Revised: 01/25/2018

Name/Affiliation of Sampler(s): David Anderson / Pace Analytical

Lead Technician Signature: David Anderson Date: 10/15/18

Pace Analytical® Field Services Division

Well Sampling Field Data Log Sheet

Well Description and Presampling Information

Client Landmark Environ. **Project** Kurt Mfg. 2H2018 **Project No.** 18-01251

Monitoring Point ID Recovery Well C Labeled Well C

Inside Diameter 8 (inches) Key # A-112 ☒ Locked ☐ Not Locked

Casing Material: ☐ PVC ☒ Steel ☐ Stainless Steel

Depth Measurement and Elevations (from top of well casing)

Top of Casing Elevation NA Feet

Total Well Depth 62.30 Feet

Static water level measurement before purging (Start Depth) 37.28 Feet

Static water level measurement at time of sampling (Final Depth) 37.28 Feet

Static Water Level Elevation Before Purging NA Feet

~~Purge Method Grundfos redi flo 2~~ ~~Pump ID SP-1~~

Date Purged DJA 10/16/18 Water Column 25.02 Feet

Time Purged ____ One Casing Volume 65.3 Gallons

Pump Rate ____ GPM / (LPM) Volume Purged ____ ~~Gallons~~ Liters

Field Sampling Data

Date Sampled 10-16-18

Time Sampled 1455

Sampling Equip. ~~disposable bailer~~ above pump

Meter ID MPS-5

Analyzed by DJA

Field Parameter Measurements of Sample

pH 7.8 (units) D.O NA (mg/l)

Spec. Cond. 720 (µmhos/cm) Turbidity NA (NTU)

Temp. 12.0 (°C) Eh NA (mV)

Other NA

Field Measurements Temp. Corrected: ☒ Yes ☐ No ☐ NA

Sample for Soluble Metals Filtered in Field: ☐ Yes ☐ No ☒ NA

Weather Conditions During Sampling: 50° + sunny, wind W 15

Sample Description: clear + odorless

Observations: ~~Purged and sampled using Low Flow Sampling method @ 0.5 Liters/minute.~~ Recovery Well C is constantly pumping.

Stabilization Test

Time	pH (units)	Specific Conductance (µmhos/cm)	Temp (°C)	D.O (mg/l)	Turbidity (NTU)	Eh (mV)	Volume Purged (cumulative ~~gal~~) L
				NA	NA	NA	L
				NA	NA	NA	L
				NA	NA	NA	L
			DJA 10/16/18				

Samples chilled immediately after collection: ☒ Yes ☐ Other ____

Form Revised: 01/25/2018

Name/Affiliation of Sampler(s): David Anderson / Pace Analytical

Lead Technician Signature: David Anderson Date: 10/16/18

Pace Analytical® Field Services Division

Well Sampling Field Data Log Sheet

Well Description and Presampling Information

Client Landmark Environ. Project Kurt Mfg. 2H2018 Project No. 18-01251

Monitoring Point ID Well B Labeled Well B

Inside Diameter 6 (inches) Key # A-112 ☒ Locked ☐ Not Locked

Casing Material: ☐ PVC ☒ Steel ☐ Stainless Steel

Depth Measurement and Elevations (from top of well casing)

Top of Casing Elevation NA Feet

Total Well Depth 100.00 Feet

Static water level measurement before purging (Start Depth) 26.58 Feet

Static water level measurement at time of sampling (Final Depth) 26.58 Feet

Static Water Level Elevation Before Purging NA Feet

Purge Method Grundfos redi flo 2 Pump ID SP-1

Date Purged 10-15-18 Water Column 73.42 Feet

Time Purged 1215 - 1224 One Casing Volume 107.80 Gallons

Pump Rate 0.5 GPM / (LPM) Volume Purged 4.5 ~~Gallons~~ Liters

Field Sampling Data

Date Sampled 10-15-18

Time Sampled 1230

Sampling Equip. above pump

Meter ID MPS-5

Analyzed by DJA

Field Parameter Measurements of Sample

pH 7.6 (units) D.O NA (mg/l)

Spec. Cond. 640 (µmhos/cm) Turbidity NA (NTU)

Temp. 12.5 (°C) Eh NA (mV)

Other NA

Field Measurements Temp. Corrected: ☒ Yes ☐ No ☐ NA

Sample for Soluble Metals Filtered in Field: ☐ Yes ☐ No ☒ NA

Weather Conditions During Sampling: 40° + partly cloudy

Sample Description: brown color + odorless

Observations: Purged and sampled using Low-Flow sampling method @ 0.5 Liters/minute

Stabilization Test

Time	pH (units)	Specific Conductance (µmhos/cm)	Temp (°C)	D.O (mg/l)	Turbidity (NTU)	Eh (mV)	Volume Purged (cumulative ~~gal~~ L)
1218	7.6	650	12.5	NA	NA	NA	1.5 L
1221	7.6	640	12.5	NA	NA	NA	3.0 L
1224	7.6	640	12.5	NA	NA	NA	4.5 L

DJA 10/15/18

Samples chilled immediately after collection ☒ Yes ☐ Other

Form Revised: 01/25/2018

Name/Affiliation of Sampler(s): David Anderson / Pace Analytical

Lead Technician Signature: David Anderson Date: 10/15/18

Pace Analytical® Field Services Division

Well Sampling Field Data Log Sheet

Well Description and Presampling Information

Client Landmark Environ. Project Kurt Mfg. 2H2018 Project No. 18-01251

Monitoring Point ID MW-1 Labeled MW-1

Inside Diameter _____ (inches) Key # A-112 ☒ Locked ☐ Not Locked

Casing Material: ☐ PVC ☒ Steel ☐ Stainless Steel

Depth Measurement and Elevations (from top of well casing)

Top of Casing Elevation NA Feet

Total Well Depth 47.91 Feet

Static water level measurement before purging (Start Depth) 28.55 Feet

Static water level measurement at time of sampling (Final Depth) 28.55 Feet

Static Water Level Elevation Before Purging NA Feet

Purge Method Grundfos rediflo2 Pump ID SP-1

Date Purged 10-15-18 Water Column 19.36 Feet

Time Purged 1430 - 1439 One Casing Volume 3.2 Gallons

Pump Rate 0.5 GPM (LPM) Volume Purged 4.5 ~~Gallons~~ Liters

Field Sampling Data

Date Sampled 10-15-18

Time Sampled 1445

Sampling Equip. above pump

Meter ID MPS-5

Analyzed by DJA

Field Parameter Measurements of Sample

pH 7.1 (units) D.O NA (mg/l)

Spec. Cond. 1630 (µmhos/cm) Turbidity NA (NTU)

Temp. 12.0 (°C) Eh NA (mV)

Other NA

Field Measurements Temp. Corrected: ☒ Yes ☐ No ☐ NA

Sample for Soluble Metals Filtered in Field: ☐ Yes ☐ No ☒ NA

Weather Conditions During Sampling: 41° + sunny, wind NW 10

Sample Description: clear + odorless,

Observations: Purged and sampled using Low-Flow Sampling method @ 0.5 Liters/minute

Stabilization Test

Time	pH (units)	Specifc Conductance (µmhos/cm)	Temp (°C)	D.O (mg/l)	Turbidity (NTU)	Eh (mV)	Volume Purged (cumulative ~~gal~~ L)
1433	7.2	1620	11.5	NA	NA	NA	1.5 L
1436	7.2	1630	12.0	NA	NA	NA	3.0 L
1439	7.1	1630	12.0	NA	NA	NA	4.5 L
				DJA	10/15/18		

Samples chilled immediately after collection: ☒ Yes ☐ Other _____

Form Revised: 01/25/2018

Name/Affiliation of Sampler(s): David Anderson / Pace Analytical

Lead Technician Signature: David Anderson Date: 10/15/18

Pace Analytical® Field Services Division

Well Sampling Field Data Log Sheet

Well Description and Presampling Information

Client Landmark Environ. Project Kurt Mfg. 2H2018 Project No. 18-01251

Monitoring Point ID MW-2 Labeled MW-2

Inside Diameter 2 (inches) Key # A-112 ☒ Locked ☐ Not Locked

Casing Material: ☐ PVC ☒ Steel ☐ Stainless Steel

Depth Measurement and Elevations (from top of well casing)

Top of Casing Elevation NA Feet

Total Well Depth 46.30 Feet

Static water level measurement before purging (Start Depth) 28.13 Feet

Static water level measurement at time of sampling (Final Depth) 29.70 Feet

Static Water Level Elevation Before Purging NA Feet

Purge Method Grundfos rediflo2 Pump ID SP-1

Date Purged 10-16-18 Water Column 18.17 Feet

Time Purged 1000-1009 One Casing Volume 3.0 Gallons

Pump Rate 0.5 GPM (LPM) Volume Purged 4.5 ~~Gallons~~ Liters

Field Sampling Data

Date Sampled 10-16-18

Time Sampled 1015

Sampling Equip. above pump

Meter ID MPS-5

Analyzed by DJA

Field Parameter Measurements of Sample

pH 7.0 (units) D.O NA (mg/l)

Spec. Cond. 2860 (µmhos/cm) Turbidity NA (NTU)

Temp. 12.5 (°C) Eh NA (mV)

Other NA

Field Measurements Temp. Corrected: ☒ Yes ☐ No ☐ NA

Sample for Soluble Metals Filtered in Field: ☐ Yes ☐ No ☒ NA

Weather Conditions During Sampling: 43° + sunny, wind W 5-10

Sample Description: clear + odorless

Observations: Purged and sampled using Low-Flow Sampling method @ 0.5 Liters/minute.

Stabilization Test

Time	pH (units)	Specific Conductance (µmhos/cm)	Temp (°C)	D.O (mg/l)	Turbidity (NTU)	Eh (mV)	Volume Purged (cumulative ~~gal~~ L)
1003	7.0	2860	12.0	NA	NA	NA	1.5 L
1006	7.0	2860	12.5	NA	NA	NA	3.0 L
1009	7.0	2860	12.5	NA	NA	NA	4.5 L

NA 10/16/18

Samples chilled immediately after collection: ☒ Yes ☐ Other

Form Revised: 01/25/2018

Name/Affiliation of Sampler(s): David Anderson / Pace Analytical

Lead Technician Signature: David Anderson Date: 10/16/18

Pace Analytical® Field Services Division

Well Sampling Field Data Log Sheet

Well Description and Presampling Information

Client Landmark Environ. Project Kurt Mfg. 2#2018 Project No. 18-01251

Monitoring Point ID MW-3 Labeled No

Inside Diameter 2 (inches) Key # A-112 ☐ Locked ☒ Not Locked

Casing Material: ☐ PVC ☒ Steel ☐ Stainless Steel Flush mount well needs new cover.

Depth Measurement and Elevations (from top of well casing)

Top of Casing Elevation	NA	Feet
Total Well Depth	34.20	Feet
Static water level measurement before purging (Start Depth)	7.70	Feet
Static water level measurement at time of sampling (Final Depth)	15.90	Feet
Static Water Level Elevation Before Purging	NA	Feet

Purge Method ~~Grundfos redi-flo 2~~ disposable bailer Pump ID SP-1

Date Purged 10/16/18 Water Column 26.50 Feet

Time Purged 1405 - 1414 One Casing Volume 4.3 Gallons

Pump Rate NA GPM / LPM Volume Purged 4.5 ~~Gallons~~ Liters

Field Sampling Data

Date Sampled 10/16/18

Time Sampled 1420

Sampling Equip. ~~above pump~~ disposable bailer

Meter ID MPS-5

Analyzed by DJA

Field Parameter Measurements of Sample

pH 8.0 (units) D.O NA (mg/l)

Spec. Cond. 820 (µmhos/cm) Turbidity NA (NTU)

Temp. 18.5 (°C) Eh NA (mV)

Other NA

Field Measurements Temp. Corrected: ☒ Yes ☐ No ☐ NA

Sample for Soluble Metals Filtered in Field: ☐ Yes ☐ No ☒ NA

Weather Conditions During Sampling: 47° + sunny, wind W15

Sample Description: clear + odorless

Observations: ~~Purged and sampled using Low Flow Sampling method @ 0.5 Liters/minute.~~ Bent casing, pump will not fit.

Stabilization Test

Time	pH (units)	Specific Conductance (µmhos/cm)	Temp (°C)	D.O (mg/l)	Turbidity (NTU)	Eh (mV)	Volume Purged (cumulative ~~gal~~ L)
1408	7.9	820	18.5	NA	NA	NA	1.5 L
1411	8.0	820	18.5	NA	NA	NA	3.0 L
1414	8.0	820	18.5	NA	NA	NA	4.5 L
			DJA 10/16/18				

Samples chilled immediately after collection: ☒ Yes ☐ Other

Form Revised: 01/25/2018

Name/Affiliation of Sampler(s): David Anderson / Pace Analytical

Lead Technician Signature: David Anderson Date: 10/16/18

Pace Analytical® Field Services Division

Well Sampling Field Data Log Sheet

Well Description and Presampling Information

Client Landmark Environ. Project Kurt Mfg. 2H2018 Project No. 18-01251

Monitoring Point ID MW-4 Labeled MW-4

Inside Diameter 2 (inches) Key # A-112 ☒ Locked ☐ Not Locked

Casing Material: ☒ PVC ☐ Steel ☐ Stainless Steel

Depth Measurement and Elevations (from top of well casing)

Top of Casing Elevation NA Feet

Total Well Depth 40.70 Feet

Static water level measurement before purging (Start Depth) 22.92 Feet

Static water level measurement at time of sampling (Final Depth) 22.92 Feet

Static Water Level Elevation Before Purging NA Feet

Purge Method Grundfos redi flo 2 Pump ID SP-1

Date Purged 10-15-18 Water Column 17.78 Feet

Time Purged 1505 - 1514 One Casing Volume 2.9 Gallons

Pump Rate 0.5 GPM / (LPM) Volume Purged 4.5 ~~Gallons~~ Liters

Field Sampling Data

Date Sampled 10-15-18

Time Sampled 1520

Sampling Equip. above pump

Meter ID MPS-5

Analyzed by DJA

Field Parameter Measurements of Sample

pH 7.0 (units) D.O NA (mg/l)

Spec. Cond. 2160 (µmhos/cm) Turbidity NA (NTU)

Temp. 12.0 (°C) Eh NA (mV)

Other NA

Field Measurements Temp. Corrected: ☒ Yes ☐ No ☐ NA

Sample for Soluble Metals Filtered in Field: ☐ Yes ☐ No ☒ NA

Weather Conditions During Sampling: 42° + sunny, Wind NW 10

Sample Description: clear + odorless

Observations: Purged and sampled using Low-Flow Sampling method @ 0.5 Liters/minute

Stabilization Test

Time	pH (units)	Specific Conductance (µmhos/cm)	Temp (°C)	D.O (mg/l)	Turbidity (NTU)	Eh (mV)	Volume Purged (cumulative ~~gal~~ L)
1508	7.0	2200	11.5	NA	NA	NA	1.5 L
1511	7.0	2180	12.0	NA	NA	NA	3.0 L
1514	7.0	2160	12.0	NA	NA	NA	4.5 L

DJA 10/15/18

Samples chilled immediately after collection ☒ Yes ☐ Other

Form Revised: 01/25/2018

Name/Affiliation of Sampler(s): David Anderson / Pace Analytical

Lead Technician Signature: David Anderson Date: 10/15/18

Pace Analytical® Field Services Division

Well Sampling Field Data Log Sheet

Client Landmark Environ. **Project** Kurt Mfg. 2H2018 **Project No.** 18-01251

Well Description and Presampling Information

Monitoring Point ID MW-5 Labeled MW-5

Inside Diameter 2 (inches) Key # A-112 ☒ Locked ☐ Not Locked

Casing Material: ☒ PVC ☐ Steel ☐ Stainless Steel

Depth Measurement and Elevations (from top of well casing)

Top of Casing Elevation NA Feet

Total Well Depth 50.54 Feet

Static water level measurement before purging (Start Depth) 23.15 Feet

Static water level measurement at time of sampling (Final Depth) 24.56 Feet

Static Water Level Elevation Before Purging NA Feet

Purge Method Grundfos redi flo 2 Pump ID SP-1

Date Purged 10-16-18 Water Column 27.39 Feet

Time Purged 1120 - 1129 One Casing Volume 4.5 Gallons

Pump Rate 0.5 GPM / (LPM) Volume Purged 4.5 ~~Gallons~~ Liters

Field Sampling Data

Date Sampled 10-16-18

Time Sampled 1135

Sampling Equip. above pump

Meter ID MPS-5

Analyzed by DJA

Field Parameter Measurements of Sample

pH 6.7 (units) D.O NA (mg/l)

Spec. Cond. 6290 (µmhos/cm) Turbidity NA (NTU)

Temp. 14.5 (°C) Eh NA (mV)

Other NA

Field Measurements Temp. Corrected: ☒ Yes ☐ No ☐ NA

Sample for Soluble Metals Filtered in Field: ☐ Yes ☐ No ☒ NA

Weather Conditions During Sampling: 44° + sunny, wind W10

Sample Description: clear + odorless

Observations: Purged and sampled using Low-Flow sampling method @ 0.5 Liters/minute

Stabilization Test

Time	pH (units)	Specific Conductance (µmhos/cm)	Temp (°C)	D.O (mg/l)	Turbidity (NTU)	Eh (mV)	Volume Purged (cumulative ~~gal~~) L
1123	6.7	6270	14.5	NA	NA	NA	1.5 L
1126	6.7	6280	14.5	NA	NA	NA	3.0 L
1129	6.7	6290	14.5	NA	NA	NA	4.5 L

DJA 10/16/18

Samples chilled immediately after collection: ☒ Yes ☐ Other

Form Revised: 01/25/2018

Name/Affiliation of Sampler(s): David Anderson / Pace Analytical

Lead Technician Signature: David Anderson Date: 10/16/18

Pace Analytical® Field Services Division

Well Sampling Field Data Log Sheet

Client Landmark Environ. **Project** Kurt Mfg. 2#2018 **Project No.** 18-01251

Well Description and Presampling Information

Monitoring Point ID MW-6 Labeled MW-6

Inside Diameter 2 (inches) Key # A-112 ☒ Locked ☐ Not Locked

Casing Material: ☒ PVC ☐ Steel ☐ Stainless Steel

Depth Measurement and Elevations (from top of well casing)

Top of Casing Elevation NA Feet

Total Well Depth 48.80 Feet

Static water level measurement before purging (Start Depth) 30.83 Feet

Static water level measurement at time of sampling (Final Depth) 30.87 Feet

Static Water Level Elevation Before Purging NA Feet

Purge Method Grundfos redi flo 2 Pump ID SP-1

Date Purged 10-16-18 Water Column 17.97 Feet

Time Purged 1530-1539 One Casing Volume 2.9 Gallons

Pump Rate 0.5 GPM / (LPM) Volume Purged 4.5 ~~Gallons~~ Liters

Field Sampling Data

Date Sampled 10-16-18

Time Sampled 1545

Sampling Equip. above pump

Meter ID MPS-5

Analyzed by DJA

Field Parameter Measurements of Sample

pH 7.6 (units) D.O NA (mg/l)

Spec. Cond. 460 (µmhos/cm) Turbidity NA (NTU)

Temp. 14.0 (°C) Eh NA (mV)

Other NA

Field Measurements Temp. Corrected: ☒ Yes ☐ No ☐ NA

Sample for Soluble Metals Filtered in Field: ☐ Yes ☐ No ☒ NA

Weather Conditions During Sampling: 50° + sunny, wind W 15

Sample Description: clear + odorless

Observations: Purged and sampled using Low-Flow sampling method @ 0.5 Liters/minute.

Stabilization Test

Time	pH (units)	Specific Conductance (µmhos/cm)	Temp (°C)	D.O (mg/l)	Turbidity (NTU)	Eh (mV)	Volume Purged (cumulative ~~gal~~ L)
1533	7.7	440	13.5	NA	NA	NA	1.5 L
1536	7.6	450	14.0	NA	NA	NA	3.0 L
1539	7.6	460	14.0	NA	NA	NA	4.5 L

DJA 10/16/18

Samples chilled immediately after collection ☒ Yes ☐ Other

Form Revised: 01/25/2018

Name/Affiliation of Sampler(s): David Anderson / Pace Analytical

Lead Technician Signature: David Anderson Date: 10/16/18

Pace Analytical® Field Services Division

Well Sampling Field Data Log Sheet

Well Description and Presampling Information

Client Landmark Environ. **Project** Kurt Mfg. 2H2018 **Project No.** 18-01251

Monitoring Point ID MW-7 Labeled No

Inside Diameter 2 (inches) Key # A-112 ☐ Locked ☒ Not Locked

Casing Material: ☐ PVC ☒ Steel ☐ Stainless Steel Flush mount well

Depth Measurement and Elevations (from top of well casing)

Top of Casing Elevation NA Feet

Total Well Depth 78.38 Feet

Static water level measurement before purging (Start Depth) 23.21 Feet

Static water level measurement at time of sampling (Final Depth) 24.19 Feet

Static Water Level Elevation Before Purging NA Feet

Purge Method Grundfos rediflo 2 Pump ID SP-1

Date Purged 10-16-18 Water Column 55.17 Feet

Time Purged 1330-1339 One Casing Volume 9.0 Gallons

Pump Rate 0.5 GPM (LPM) Volume Purged 4.5 ~~Gallons~~ Liters

Field Sampling Data

Date Sampled 10-16-18

Time Sampled 1345

Sampling Equip. above pump

Meter ID MPS-5

Analyzed by DJA

Field Parameter Measurements of Sample

pH 7.2 (units) D.O NA (mg/l)

Spec. Cond. 1700 (µmhos/cm) Turbidity NA (NTU)

Temp. 14.5 (°C) Eh NA (mV)

Other NA

Field Measurements Temp. Corrected: ☒ Yes ☐ No ☐ NA

Sample for Soluble Metals Filtered in Field: ☐ Yes ☐ No ☒ NA

Weather Conditions During Sampling: 45° & sunny, wind W 15

Sample Description: clear & odorless

Observations: Purged and sampled using Low-Flow Sampling method @ 0.5 Liters/minute

Stabilization Test

Time	pH (units)	Specifc Conductance (µmhos/cm)	Temp (°C)	D.O (mg/l)	Turbidity (NTU)	Eh (mV)	Volume Purged (cumulative ~~gal~~) L
1333	7.2	1690	14.5	NA	NA	NA	1.5 L
1336	7.2	1700	14.5	NA	NA	NA	3.0 L
1339	7.2	1700	14.5	NA	NA	NA	4.5 L

DJA 10/16/18

Samples chilled immediately after collection: ☒ Yes ☐ Other

Form Revised: 01/25/2018

Name/Affiliation of Sampler(s): David Anderson / Pace Analytical

Lead Technician Signature: David Anderson Date: 10/16/18

Pace Analytical® Field Services Division

Well Sampling Field Data Log Sheet

Well Description and Presampling Information

Client Landmark Environ. Project Kurt Mfg. 2H2018 Project No. 18-01251

Monitoring Point ID MW-8 Labeled MW-8

Inside Diameter 2 (inches) Key # A-112 ☒ Locked ☐ Not Locked

Casing Material: ☒ PVC ☐ Steel ☐ Stainless Steel

Depth Measurement and Elevations (from top of well casing)

Top of Casing Elevation NA Feet

Total Well Depth 82.69 Feet

Static water level measurement before purging (Start Depth) 28.22 Feet

Static water level measurement at time of sampling (Final Depth) 32.76 Feet

Static Water Level Elevation Before Purging NA Feet

Purge Method Grundfos rediflo 2 Pump ID SP-1

Date Purged 10-16-18 Water Column 54.47 Feet

Time Purged 0930-0939 One Casing Volume 8.9 Gallons

Pump Rate 0.5 GPM (LPM) Volume Purged 4.5 ~~Gallons~~ Liters

Field Sampling Data

Date Sampled 10-16-18

Time Sampled 0945

Sampling Equip. above pump

Meter ID MPS-5

Analyzed by DJA

Field Parameter Measurements of Sample

pH 7.2 (units) D.O NA (mg/l)

Spec. Cond. 1530 (µmhos/cm) Turbidity NA (NTU)

Temp. 12.0 (°C) Eh NA (mV)

Other NA

Field Measurements Temp. Corrected: ☒ Yes ☐ No ☐ NA

Sample for Soluble Metals Filtered in Field: ☐ Yes ☐ No ☒ NA

Weather Conditions During Sampling: 42° + sunny, wind W 5-10

Sample Description: clear + odorless

Observations: Purged and sampled using Low-Flow Sampling method @ 0.5 Liters/minute

Stabilization Test

Time	pH (units)	Specifc Conductance (µmhos/cm)	Temp (°C)	D.O (mg/l)	Turbidity (NTU)	Eh (mV)	Volume Purged (cumulative gal/L)
0933	7.2	1560	11.5	NA	NA	NA	1.5 L
0936	7.2	1540	11.5	NA	NA	NA	3.0 L
0939	7.2	1530	12.0	NA	NA	NA	4.5 L
			~~DTA~~	10/16/18			

Samples chilled immediately after collection: ☒ Yes ☐ Other

Form Revised: 01/25/2018

Name/Affiliation of Sampler(s): David Anderson / Pace Analytical

Lead Technician Signature: David Anderson Date: 10/16/18

Pace Analytical® Field Services Division

Well Sampling Field Data Log Sheet

Well Description and Presampling Information

Client Landmark Environ. Project Kurt Mfg. 2H2018 Project No. 18-01251

Monitoring Point ID MW-9 Labeled MW-9

Inside Diameter 2 (inches) Key # A-112 ☒ Locked ☐ Not Locked

Casing Material: ☒ PVC ☐ Steel ☐ Stainless Steel

Depth Measurement and Elevations (from top of well casing)

Top of Casing Elevation NA Feet

Total Well Depth 75.73 Feet

Static water level measurement before purging (Start Depth) 23.56 Feet

Static water level measurement at time of sampling (Final Depth) 27.04 Feet

Static Water Level Elevation Before Purging NA Feet

Purge Method Grundfos rediflo2 Pump ID SP-1

Date Purged 10-16-18 Water Column 52.17 Feet

Time Purged 1040 - 1049 One Casing Volume 8.5 Gallons

Pump Rate 0.5 GPM / (LPM) Volume Purged 4.5 ~~Gallons~~ Liters

Field Sampling Data

Date Sampled 10-16-18

Time Sampled 1055

Sampling Equip. above pump

Meter ID MPS-5

Analyzed by DJA

Field Parameter Measurements of Sample

pH 7.0 (units) D.O NA (mg/l)

Spec. Cond. 1720 (µmhos/cm) Turbidity NA (NTU)

Temp. 14.5 (°C) Eh NA (mV)

Other NA

Field Measurements Temp. Corrected: ☒ Yes ☐ No ☐ NA

Sample for Soluble Metals Filtered in Field: ☐ Yes ☐ No ☒ NA

Weather Conditions During Sampling: 43° + sunny, wind W 5-10

Sample Description: clear + odorless

Observations: Purged and sampled using Low-Flow Sampling method @ 0.5 Liters/minute

Stabilization Test

Time	pH (units)	Specific Conductance (µmhos/cm)	Temp (°C)	D.O (mg/l)	Turbidity (NTU)	Eh (mV)	Volume Purged (cumulative ~~gal~~ L)
1043	7.1	1780	14.5	NA	NA	NA	1.5 L
1046	7.0	1740	14.5	NA	NA	NA	3.0 L
1049	7.0	1720	14.5	NA	NA	NA	4.5 L
			DTA	10/16/18			

Samples chilled immediately after collection ☒ Yes ☐ Other

Form Revised: 01/25/2018

Name/Affiliation of Sampler(s): David Anderson / Pace Analytical

Lead Technician Signature: David Anderson Date: 10/16/18

Pace Analytical® Field Services Division

Well Sampling Field Data Log Sheet

Well Description and Presampling Information

Client Landmark Environ. Project Kurt Mfg. 2H2018 Project No. 18-01251

Monitoring Point ID MW-10 Labeled MW-10

Inside Diameter 2 (inches) Key # A-112 ☒ Locked ☐ Not Locked

Casing Material: ☒ PVC ☐ Steel ☐ Stainless Steel

Depth Measurement and Elevations (from top of well casing)

Top of Casing Elevation NA Feet

Total Well Depth 44.79 Feet

Static water level measurement before purging (Start Depth) 31.67 Feet

Static water level measurement at time of sampling (Final Depth) 31.67 Feet

Static Water Level Elevation Before Purging NA Feet

Purge Method Grundfos rediflo2 Pump ID SP-1

Date Purged 10-15-18 Water Column 13.12 Feet

Time Purged 1305-1314 One Casing Volume 2.1 Gallons

Pump Rate 0.5 GPM (LPM) Volume Purged 4.5 ~~Gallons~~ Liters

Field Sampling Data

Date Sampled 10-15-18

Time Sampled 1320

Sampling Equip. above pump

Meter ID MPS-5

Analyzed by DJA

Field Parameter Measurements of Sample

pH 7.3 (units) D.O NA (mg/l)

Spec. Cond. 670 (µmhos/cm) Turbidity NA (NTU)

Temp. 13.0 (°C) Eh NA (mV)

Other NA

Field Measurements Temp. Corrected: ☒ Yes ☐ No ☐ NA

Sample for Soluble Metals Filtered in Field: ☐ Yes ☐ No ☒ NA

Weather Conditions During Sampling: 40° + partly cloudy, wind NW 10

Sample Description: clear + odorless

Observations: Purged and sampled using Low-Flow Sampling method @ 0.5 Liters/minute

Stabilization Test

Time	pH (units)	Specific Conductance (µmhos/cm)	Temp (°C)	D.O. (mg/l)	Turbidity (NTU)	Eh (mV)	Volume Purged (cumulative ~~gal~~ L)
1308	7.3	650	12.5	NA	NA	NA	1.5 L
1311	7.3	670	12.5	NA	NA	NA	3.0 L
1314	7.3	670	13.0	NA	NA	NA	4.5 L

DJA 10/15/18

Samples chilled immediately after collection: ☒ Yes ☐ Other

Form Revised: 01/25/2018

Name/Affiliation of Sampler(s): David Anderson / Pace Analytical

Lead Technician Signature: David Anderson Date: 10-15-18

Pace Analytical® Field Services Division

Well Sampling Field Data Log Sheet

Well Description and Presampling Information

Client Landmark Environ. **Project** Kurt Mfg. 2H2018 **Project No.** 18-01251

Monitoring Point ID MW-12 Labeled MW-12

Inside Diameter 2 (inches) Key # A-112 ☒ Locked ☐ Not Locked

Casing Material: ☐ PVC ☒ Steel ☐ Stainless Steel

Depth Measurement and Elevations (from top of well casing)

Top of Casing Elevation NA Feet

Total Well Depth 52.50 Feet

Static water level measurement before purging (Start Depth) 30.33 Feet

Static water level measurement at time of sampling (Final Depth) 30.35 Feet

Static Water Level Elevation Before Purging NA Feet

Purge Method Grundfos redi flo 2 Pump ID SP-1

Date Purged 10-15-18 Water Column 22.17 Feet

Time Purged 1345 - 1404 One Casing Volume 3.6 Gallons

Pump Rate 0.5 GPM / (LPM) Volume Purged 4.5 ~~Gallons~~ Liters

Field Sampling Data

Date Sampled 10-15-18

Time Sampled 1410

Sampling Equip. above pump

Meter ID MPS-5

Analyzed by DJA

Field Parameter Measurements of Sample

pH 7.4 (units) D.O NA (mg/l)

Spec. Cond. 420 (µmhos/cm) Turbidity NA (NTU)

Temp. 12.5 (°C) Eh NA (mV)

Other NA

Field Measurements Temp. Corrected: ☒ Yes ☐ No ☐ NA

Sample for Soluble Metals Filtered in Field: ☐ Yes ☐ No ☒ NA

Weather Conditions During Sampling: 40° + sunny, wind NW 10

Sample Description: clear + odorless

Observations: Purged and sampled using Low-Flow Sampling method @ 0.5 Liters/minute

Stabilization Test

Time	pH (units)	Specifc Conductance (µmhos/cm)	Temp (°C)	D.O (mg/l)	Turbidity (NTU)	Eh (mV)	Volume Purged (cumulative ~~gal~~ L)
1348	7.4	430	12.0	NA	NA	NA	1.5 L
1401	7.4	420	12.5	NA	NA	NA	3.0 L
1404	7.4	420	12.5	NA	NA	NA	4.5 L
			DJA 10/15/18				

Samples chilled immediately after collection: ☒ Yes ☐ Other

Form Revised: 01/25/2018

Name/Affiliation of Sampler(s): David Anderson / Pace Analytical

Lead Technician Signature: David Anderson Date: 10/15/18

Pace Analytical® Field Services Division

Well Sampling Field Data Log Sheet

Client Landmark Environ. **Project** Kurt Mfg. 2H2018 **Project No.** 18-01251

Well Description and Presampling Information

Monitoring Point ID MW-13 Labeled 766417

Inside Diameter 2 (inches) Key # A-112 ☐ Locked ☒ ~~☐~~ Not Locked

Casing Material: ☐ PVC ☒ Steel ☐ Stainless Steel Flush mount

Depth Measurement and Elevations (from top of well casing)

Top of Casing Elevation ~~NA~~ 850.24 Feet

Total Well Depth 53.19 Feet

Static water level measurement before purging (Start Depth) 28.67 Feet

Static water level measurement at time of sampling (Final Depth) 29.10 Feet

Static Water Level Elevation Before Purging ~~NA~~ 821.57 Feet

Purge Method Grundfos rediflo2 Pump ID SP-1

Date Purged 10-16-18 Water Column 24.52 Feet

Time Purged 1210-1219 One Casing Volume 4.0 Gallons

Pump Rate 0.5 GPM (LPM) Volume Purged 4.5 ~~Gallons~~ Liters

Field Sampling Data

Date Sampled 10-16-18

Time Sampled 1225

Sampling Equip. above pump

Meter ID MPS-5

Analyzed by DJA

Field Parameter Measurements of Sample

pH 7.1 (units) D.O NA (mg/l)

Spec. Cond. 1980 (µmhos/cm) Turbidity NA (NTU)

Temp. 12.0 (°C) Eh NA (mV)

Other NA

Field Measurements Temp. Corrected: ☒ ~~☐~~ Yes ☐ No ☐ NA

Sample for Soluble Metals Filtered in Field: ☐ Yes ☐ No ☒ ~~☐~~ NA

Weather Conditions During Sampling: 45° + sunny, wind NW 10

Sample Description: clear + odorless

Observations: Purged and sampled using Low-Flow Sampling method @ 0.5 Liters/minute

Stabilization Test

Time	pH (units)	Specific Conductance (µmhos/cm)	Temp (°C)	D.O (mg/l)	Turbidity (NTU)	Eh (mV)	Volume Purged (cumulative ~~gal~~ L)
1213	7.2	1990	12.0	NA	NA	NA	1.5 L
1216	7.1	1980	12.0	NA	NA	NA	3.0 L
1219	7.1	1980	12.0	NA	NA	NA	4.5 L

~~NA~~ 10/16/18

Samples chilled immediately after collection ☒ ~~☐~~ Yes ☐ Other

Form Revised: 01/25/2018

Name/Affiliation of Sampler(s): David Anderson / Pace Analytical

Lead Technician Signature: David Anderson Date: 10/16/18

Pace Analytical® Field Services Division

Well Sampling Field Data Log Sheet

Well Description and Presampling Information

Client Landmark Environ. Project Kurt Mfg. 2H2018 Project No. 18-01251

Monitoring Point ID MW-14 Labeled 766418

Inside Diameter 2 (inches) Key # A-112 ☒ Locked ☐ Not Locked

Casing Material: ☒ PVC ☐ Steel ☐ Stainless Steel

Depth Measurement and Elevations (from top of well casing)

Top of Casing Elevation ~~NA~~ 850.29 Feet

Total Well Depth 41.90 Feet

Static water level measurement before purging (Start Depth) 28.66 Feet

Static water level measurement at time of sampling (Final Depth) 29.65 Feet

Static Water Level Elevation Before Purging ~~NA~~ 821.63 Feet

Purge Method Grundfos redi flo 2 Pump ID SP-1

Date Purged 10-16-18 Water Column 13.24 Feet

Time Purged 1240 - 1249 One Casing Volume 2.2 Gallons

Pump Rate 0.5 GPM (LPM) Volume Purged 4.5 ~~Gallons~~ Liters

Field Sampling Data

Date Sampled 10-16-18

Time Sampled 1255

Sampling Equip. above pump

Meter ID MPS-5

Analyzed by DJA

Field Parameter Measurements of Sample

pH 7.0 (units) D.O NA (mg/l)

Spec. Cond. 3100 (µmhos/cm) Turbidity NA (NTU)

Temp. 12.0 (°C) Eh NA (mV)

Other NA

Field Measurements Temp. Corrected: ☒ Yes ☐ No ☐ NA

Sample for Soluble Metals Filtered in Field: ☐ Yes ☐ No ☒ NA

Weather Conditions During Sampling: 45° + sunny, wind NW 10

Sample Description: clear + odorless

Observations: Purged and sampled using Low-Flow Sampling method @ 0.5 Liters/minute

Stabilization Test

Time	pH (units)	Specific Conductance (µmhos/cm)	Temp (°C)	D.O (mg/l)	Turbidity (NTU)	Eh (mV)	Volume Purged (cumulative ~~gal~~ L)
1243	7.0	3070	12.0	NA	NA	NA	1.5 L
1246	7.0	3080	12.0	NA	NA	NA	3.0 L
1249	7.0	3100	12.0	NA	NA	NA	4.5 L
				DJA 10/16/18			

Samples chilled immediately after collection: ☒ Yes ☐ Other

Form Revised: 01/25/2018

Name/Affiliation of Sampler(s): David Anderson / Pace Analytical

Lead Technician Signature: David Anderson Date: 10/16/18

Pace Analytical® Field Services Division

Well Sampling Field Data Log Sheet

Client Landmark Environ. **Project** Kurt Mfg. 2H2018 **Project No.** 18-01251

Well Description and Presampling Information

Monitoring Point ID MW-15 Labeled 826482

Inside Diameter 2 (inches) Key # A-112 ☒ Locked ☐ Not Locked

Casing Material: ☐ PVC ☒ Steel ☐ Stainless Steel

Depth Measurement and Elevations (from top of well casing)

Top of Casing Elevation NA Feet

Total Well Depth 82.95 Feet

Static water level measurement before purging (Start Depth) 24.31 Feet

Static water level measurement at time of sampling (Final Depth) 24.36 Feet

Static Water Level Elevation Before Purging NA Feet

Purge Method Grundfos rediflo 2 Pump ID SP-1

Date Purged 10/16/18 Water Column 58.64 Feet

Time Purged 0845-0854 One Casing Volume 9.6 Gallons

Pump Rate 0.5 GPM (LPM) Volume Purged 4.5 ~~Gallons~~ Liters

Field Sampling Data

Date Sampled 10/16/18

Time Sampled 0900

Sampling Equip. above pump

Meter ID MPS-5

Analyzed by DJA

Field Parameter Measurements of Sample

pH 6.7 (units) D.O NA (mg/l)

Spec. Cond. 2240 (µmhos/cm) Turbidity NA (NTU)

Temp. 12.5 (°C) Eh NA (mV)

Other NA

Field Measurements Temp. Corrected: ☒ Yes ☐ No ☐ NA

Sample for Soluble Metals Filtered in Field: ☐ Yes ☐ No ☒ NA

Weather Conditions During Sampling: 40° & sunny, wind W 5-10

Sample Description: clear & odorless

Observations: Purged and sampled using Low-Flow Sampling method @ 0.5 Liters/minute.

Stabilization Test

Time	pH (units)	Specifc Conductance (µmhos/cm)	Temp (°C)	D.O (mg/l)	Turbidity (NTU)	Eh (mV)	Volume Purged (cumulative ~~gal~~ L
0848	6.7	2230	12.5	NA	NA	NA	1.5 L
0851	6.7	2240	12.5	NA	NA	NA	3.0 L
0854	6.7	2240	12.5	NA	NA	NA	4.5 L
			DJA	10/16/18			

Samples chilled immediately after collection ☒ Yes ☐ Other

Form Revised: 01/25/2018

Name/Affiliation of Sampler(s): David Anderson / Pace Analytical

Lead Technician Signature: David Anderson Date: 10/16/18

APPENDIX B
JUNE 2018 ANALYTICAL REPORT

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

June 12, 2018

Mr. David Anderson
Pace Analytical Services, LLC.
1700 Elm Street
Suite 200
Minneapolis, MN 55414

RE: Project: 18-00696Landmark-Kurt Mfg 1H18
Pace Project No.: 10434052

Dear Mr. Anderson:
Enclosed are the analytical results for sample(s) received by the laboratory on June 05, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jennifer Anderson
jennifer.anderson@pacelabs.com
(612)607-6451
Project Manager

Enclosures

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: 18-00696Landmark-Kurt Mfg 1H18
Pace Project No.: 10434052

Minnesota Certification IDs

1700 Elm Street SE, Suite 200, Minneapolis, MN 55414-2485
A2LA Certification #: 2926.01
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas Certification #: 88-0680
California Certification #: 2929
CNMI Saipan Certification #:MP0003
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
Guam EPA Certification #: MN00064
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: 03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Massachusetts Certification #: M-MN064
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: MN00064
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon NwTPH Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DW Certification #: 9952 C
West Virginia DEP Certification #: 382
Wisconsin Certification #: 999407970

Pace Analytical Services, LLC
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SAMPLE SUMMARY

Project: 18-00696Landmark-Kurt Mfg 1H18
Pace Project No.: 10434052

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10434052001	**Deep Production Well**	Water	06/04/18 09:55	06/05/18 14:00
10434052002	**PC-2**	Water	06/04/18 10:55	06/05/18 14:00
10434052003	**MW-12**	Water	06/05/18 09:30	06/05/18 14:00
10434052004	**MW-15**	Water	06/05/18 10:20	06/05/18 14:00
10434052005	**MW-8**	Water	06/05/18 11:15	06/05/18 14:00
10434052006	**MW-3**	Water	06/05/18 11:45	06/05/18 14:00
10434052007	**Recovery Well C**	Water	06/05/18 12:45	06/05/18 14:00
10434052008	**MW-6**	Water	06/05/18 13:25	06/05/18 14:00

Pace Analytical Services, LLC
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SAMPLE ANALYTE COUNT

Project: 18-00696Landmark-Kurt Mfg 1H18
Pace Project No.: 10434052

Lab ID	Sample ID	Method	Analysts	Analytes Reported
10434052001	**Deep Production Well**	EPA 8260B	DS2	70
10434052002	**PC-2**	EPA 8260B	DS2	70
10434052003	**MW-12**	EPA 8260B	DS2	70
10434052004	**MW-15**	EPA 8260B	DS2	70
10434052005	**MW-8**	EPA 8260B	DS2	70
10434052006	**MW-3**	EPA 8260B	DS2	70
10434052007	**Recovery Well C**	EPA 8260B	DS2	70
10434052008	**MW-6**	EPA 8260B	DS2	70

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ANALYTICAL RESULTS

Project: 18-00696Landmark-Kurt Mfg 1H18
Pace Project No.: 10434052

Sample: Deep Production Well **Lab ID: 10434052001** Collected: 06/04/18 09:55 Received: 06/05/18 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B							
Acetone	ND	ug/L	20.0	1		06/08/18 12:45	67-64-1	
Allyl chloride	ND	ug/L	4.0	1		06/08/18 12:45	107-05-1	
Benzene	ND	ug/L	1.0	1		06/08/18 12:45	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		06/08/18 12:45	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		06/08/18 12:45	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		06/08/18 12:45	75-27-4	
Bromoform	ND	ug/L	4.0	1		06/08/18 12:45	75-25-2	
Bromomethane	ND	ug/L	4.0	1		06/08/18 12:45	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		06/08/18 12:45	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		06/08/18 12:45	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		06/08/18 12:45	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		06/08/18 12:45	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	1		06/08/18 12:45	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		06/08/18 12:45	108-90-7	
Chloroethane	ND	ug/L	1.0	1		06/08/18 12:45	75-00-3	
Chloroform	ND	ug/L	1.0	1		06/08/18 12:45	67-66-3	
Chloromethane	ND	ug/L	4.0	1		06/08/18 12:45	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		06/08/18 12:45	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		06/08/18 12:45	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	1		06/08/18 12:45	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		06/08/18 12:45	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		06/08/18 12:45	106-93-4	
Dibromomethane	ND	ug/L	4.0	1		06/08/18 12:45	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		06/08/18 12:45	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		06/08/18 12:45	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		06/08/18 12:45	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		06/08/18 12:45	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		06/08/18 12:45	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		06/08/18 12:45	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		06/08/18 12:45	75-35-4	
cis-1,2-Dichloroethene	**5.1**	ug/L	1.0	1		06/08/18 12:45	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		06/08/18 12:45	156-60-5	
Dichlorofluoromethane	ND	ug/L	1.0	1		06/08/18 12:45	75-43-4	
1,2-Dichloropropane	ND	ug/L	4.0	1		06/08/18 12:45	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		06/08/18 12:45	142-28-9	
2,2-Dichloropropane	ND	ug/L	4.0	1		06/08/18 12:45	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		06/08/18 12:45	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		06/08/18 12:45	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	1		06/08/18 12:45	10061-02-6	
Diethyl ether (Ethyl ether)	ND	ug/L	4.0	1		06/08/18 12:45	60-29-7	
Ethylbenzene	ND	ug/L	1.0	1		06/08/18 12:45	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		06/08/18 12:45	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		06/08/18 12:45	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		06/08/18 12:45	99-87-6	
Methylene Chloride	ND	ug/L	4.0	1		06/08/18 12:45	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		06/08/18 12:45	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		06/08/18 12:45	1634-04-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 18-00696Landmark-Kurt Mfg 1H18
Pace Project No.: 10434052

Sample: Deep Production Well **Lab ID: 10434052001** Collected: 06/04/18 09:55 Received: 06/05/18 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B							
Naphthalene	ND	ug/L	4.0	1		06/08/18 12:45	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		06/08/18 12:45	103-65-1	
Styrene	ND	ug/L	1.0	1		06/08/18 12:45	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		06/08/18 12:45	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		06/08/18 12:45	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		06/08/18 12:45	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	1		06/08/18 12:45	109-99-9	
Toluene	ND	ug/L	1.0	1		06/08/18 12:45	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		06/08/18 12:45	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		06/08/18 12:45	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		06/08/18 12:45	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		06/08/18 12:45	79-00-5	
Trichloroethene	**0.46**	ug/L	0.40	1		06/08/18 12:45	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		06/08/18 12:45	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	4.0	1		06/08/18 12:45	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		06/08/18 12:45	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		06/08/18 12:45	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		06/08/18 12:45	108-67-8	
Vinyl chloride	ND	ug/L	0.20	1		06/08/18 12:45	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		06/08/18 12:45	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	101	%.	75-125	1		06/08/18 12:45	17060-07-0	
Toluene-d8 (S)	100	%.	75-125	1		06/08/18 12:45	2037-26-5	
4-Bromofluorobenzene (S)	102	%.	75-125	1		06/08/18 12:45	460-00-4	

Sample: PC-2 **Lab ID: 10434052002** Collected: 06/04/18 10:55 Received: 06/05/18 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B							
Acetone	ND	ug/L	20.0	1		06/08/18 13:19	67-64-1	
Allyl chloride	ND	ug/L	4.0	1		06/08/18 13:19	107-05-1	
Benzene	ND	ug/L	1.0	1		06/08/18 13:19	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		06/08/18 13:19	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		06/08/18 13:19	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		06/08/18 13:19	75-27-4	
Bromoform	ND	ug/L	4.0	1		06/08/18 13:19	75-25-2	
Bromomethane	ND	ug/L	4.0	1		06/08/18 13:19	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		06/08/18 13:19	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		06/08/18 13:19	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		06/08/18 13:19	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		06/08/18 13:19	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	1		06/08/18 13:19	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		06/08/18 13:19	108-90-7	
Chloroethane	ND	ug/L	1.0	1		06/08/18 13:19	75-00-3	
Chloroform	ND	ug/L	1.0	1		06/08/18 13:19	67-66-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 18-00696Landmark-Kurt Mfg 1H18
Pace Project No.: 10434052

Sample: PC-2 **Lab ID: 10434052002** Collected: 06/04/18 10:55 Received: 06/05/18 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B							
Chloromethane	ND	ug/L	4.0	1		06/08/18 13:19	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		06/08/18 13:19	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		06/08/18 13:19	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	1		06/08/18 13:19	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		06/08/18 13:19	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		06/08/18 13:19	106-93-4	
Dibromomethane	ND	ug/L	4.0	1		06/08/18 13:19	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		06/08/18 13:19	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		06/08/18 13:19	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		06/08/18 13:19	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		06/08/18 13:19	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		06/08/18 13:19	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		06/08/18 13:19	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		06/08/18 13:19	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		06/08/18 13:19	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		06/08/18 13:19	156-60-5	
Dichlorofluoromethane	ND	ug/L	1.0	1		06/08/18 13:19	75-43-4	
1,2-Dichloropropane	ND	ug/L	4.0	1		06/08/18 13:19	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		06/08/18 13:19	142-28-9	
2,2-Dichloropropane	ND	ug/L	4.0	1		06/08/18 13:19	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		06/08/18 13:19	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		06/08/18 13:19	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	1		06/08/18 13:19	10061-02-6	
Diethyl ether (Ethyl ether)	ND	ug/L	4.0	1		06/08/18 13:19	60-29-7	
Ethylbenzene	ND	ug/L	1.0	1		06/08/18 13:19	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		06/08/18 13:19	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		06/08/18 13:19	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		06/08/18 13:19	99-87-6	
Methylene Chloride	ND	ug/L	4.0	1		06/08/18 13:19	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		06/08/18 13:19	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		06/08/18 13:19	1634-04-4	
Naphthalene	ND	ug/L	4.0	1		06/08/18 13:19	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		06/08/18 13:19	103-65-1	
Styrene	ND	ug/L	1.0	1		06/08/18 13:19	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		06/08/18 13:19	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		06/08/18 13:19	79-34-5	
Tetrachloroethene	**13.6**	ug/L	1.0	1		06/08/18 13:19	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	1		06/08/18 13:19	109-99-9	
Toluene	ND	ug/L	1.0	1		06/08/18 13:19	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		06/08/18 13:19	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		06/08/18 13:19	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		06/08/18 13:19	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		06/08/18 13:19	79-00-5	
Trichloroethene	**2.0**	ug/L	0.40	1		06/08/18 13:19	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		06/08/18 13:19	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	4.0	1		06/08/18 13:19	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		06/08/18 13:19	76-13-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 18-00696Landmark-Kurt Mfg 1H18
Pace Project No.: 10434052

Sample: PC-2 **Lab ID: 10434052002** Collected: 06/04/18 10:55 Received: 06/05/18 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B							
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		06/08/18 13:19	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		06/08/18 13:19	108-67-8	
Vinyl chloride	ND	ug/L	0.20	1		06/08/18 13:19	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		06/08/18 13:19	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	102	%.	75-125	1		06/08/18 13:19	17060-07-0	
Toluene-d8 (S)	100	%.	75-125	1		06/08/18 13:19	2037-26-5	
4-Bromofluorobenzene (S)	102	%.	75-125	1		06/08/18 13:19	460-00-4	

Sample: MW-12 **Lab ID: 10434052003** Collected: 06/05/18 09:30 Received: 06/05/18 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B							
Acetone	ND	ug/L	20.0	1		06/08/18 13:36	67-64-1	
Allyl chloride	ND	ug/L	4.0	1		06/08/18 13:36	107-05-1	
Benzene	ND	ug/L	1.0	1		06/08/18 13:36	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		06/08/18 13:36	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		06/08/18 13:36	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		06/08/18 13:36	75-27-4	
Bromoform	ND	ug/L	4.0	1		06/08/18 13:36	75-25-2	
Bromomethane	ND	ug/L	4.0	1		06/08/18 13:36	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		06/08/18 13:36	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		06/08/18 13:36	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		06/08/18 13:36	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		06/08/18 13:36	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	1		06/08/18 13:36	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		06/08/18 13:36	108-90-7	
Chloroethane	ND	ug/L	1.0	1		06/08/18 13:36	75-00-3	
Chloroform	ND	ug/L	1.0	1		06/08/18 13:36	67-66-3	
Chloromethane	ND	ug/L	4.0	1		06/08/18 13:36	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		06/08/18 13:36	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		06/08/18 13:36	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	1		06/08/18 13:36	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		06/08/18 13:36	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		06/08/18 13:36	106-93-4	
Dibromomethane	ND	ug/L	4.0	1		06/08/18 13:36	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		06/08/18 13:36	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		06/08/18 13:36	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		06/08/18 13:36	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		06/08/18 13:36	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		06/08/18 13:36	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		06/08/18 13:36	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		06/08/18 13:36	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		06/08/18 13:36	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		06/08/18 13:36	156-60-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 18-00696Landmark-Kurt Mfg 1H18
Pace Project No.: 10434052

Sample: MW-12 **Lab ID: 10434052003** Collected: 06/05/18 09:30 Received: 06/05/18 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B							
Dichlorofluoromethane	ND	ug/L	1.0	1		06/08/18 13:36	75-43-4	
1,2-Dichloropropane	ND	ug/L	4.0	1		06/08/18 13:36	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		06/08/18 13:36	142-28-9	
2,2-Dichloropropane	ND	ug/L	4.0	1		06/08/18 13:36	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		06/08/18 13:36	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		06/08/18 13:36	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	1		06/08/18 13:36	10061-02-6	
Diethyl ether (Ethyl ether)	ND	ug/L	4.0	1		06/08/18 13:36	60-29-7	
Ethylbenzene	ND	ug/L	1.0	1		06/08/18 13:36	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		06/08/18 13:36	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		06/08/18 13:36	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		06/08/18 13:36	99-87-6	
Methylene Chloride	ND	ug/L	4.0	1		06/08/18 13:36	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		06/08/18 13:36	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		06/08/18 13:36	1634-04-4	
Naphthalene	ND	ug/L	4.0	1		06/08/18 13:36	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		06/08/18 13:36	103-65-1	
Styrene	ND	ug/L	1.0	1		06/08/18 13:36	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		06/08/18 13:36	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		06/08/18 13:36	79-34-5	
Tetrachloroethene	**7.2**	ug/L	1.0	1		06/08/18 13:36	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	1		06/08/18 13:36	109-99-9	
Toluene	ND	ug/L	1.0	1		06/08/18 13:36	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		06/08/18 13:36	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		06/08/18 13:36	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		06/08/18 13:36	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		06/08/18 13:36	79-00-5	
Trichloroethene	ND	ug/L	0.40	1		06/08/18 13:36	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		06/08/18 13:36	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	4.0	1		06/08/18 13:36	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		06/08/18 13:36	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		06/08/18 13:36	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		06/08/18 13:36	108-67-8	
Vinyl chloride	ND	ug/L	0.20	1		06/08/18 13:36	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		06/08/18 13:36	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	100	%.	75-125	1		06/08/18 13:36	17060-07-0	
Toluene-d8 (S)	101	%.	75-125	1		06/08/18 13:36	2037-26-5	
4-Bromofluorobenzene (S)	103	%.	75-125	1		06/08/18 13:36	460-00-4	

Sample: MW-15 **Lab ID: 10434052004** Collected: 06/05/18 10:20 Received: 06/05/18 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B							
Acetone	ND	ug/L	20.0	1		06/08/18 13:53	67-64-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
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ANALYTICAL RESULTS

Project: 18-00696Landmark-Kurt Mfg 1H18
Pace Project No.: 10434052

Sample: MW-15 **Lab ID: 10434052004** Collected: 06/05/18 10:20 Received: 06/05/18 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B							
Allyl chloride	ND	ug/L	4.0	1		06/08/18 13:53	107-05-1	
Benzene	ND	ug/L	1.0	1		06/08/18 13:53	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		06/08/18 13:53	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		06/08/18 13:53	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		06/08/18 13:53	75-27-4	
Bromoform	ND	ug/L	4.0	1		06/08/18 13:53	75-25-2	
Bromomethane	ND	ug/L	4.0	1		06/08/18 13:53	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		06/08/18 13:53	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		06/08/18 13:53	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		06/08/18 13:53	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		06/08/18 13:53	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	1		06/08/18 13:53	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		06/08/18 13:53	108-90-7	
Chloroethane	ND	ug/L	1.0	1		06/08/18 13:53	75-00-3	
Chloroform	ND	ug/L	1.0	1		06/08/18 13:53	67-66-3	
Chloromethane	ND	ug/L	4.0	1		06/08/18 13:53	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		06/08/18 13:53	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		06/08/18 13:53	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	1		06/08/18 13:53	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		06/08/18 13:53	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		06/08/18 13:53	106-93-4	
Dibromomethane	ND	ug/L	4.0	1		06/08/18 13:53	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		06/08/18 13:53	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		06/08/18 13:53	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		06/08/18 13:53	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		06/08/18 13:53	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		06/08/18 13:53	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		06/08/18 13:53	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		06/08/18 13:53	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		06/08/18 13:53	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		06/08/18 13:53	156-60-5	
Dichlorofluoromethane	ND	ug/L	1.0	1		06/08/18 13:53	75-43-4	
1,2-Dichloropropane	ND	ug/L	4.0	1		06/08/18 13:53	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		06/08/18 13:53	142-28-9	
2,2-Dichloropropane	ND	ug/L	4.0	1		06/08/18 13:53	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		06/08/18 13:53	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		06/08/18 13:53	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	1		06/08/18 13:53	10061-02-6	
Diethyl ether (Ethyl ether)	ND	ug/L	4.0	1		06/08/18 13:53	60-29-7	
Ethylbenzene	ND	ug/L	1.0	1		06/08/18 13:53	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		06/08/18 13:53	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		06/08/18 13:53	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		06/08/18 13:53	99-87-6	
Methylene Chloride	ND	ug/L	4.0	1		06/08/18 13:53	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		06/08/18 13:53	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		06/08/18 13:53	1634-04-4	
Naphthalene	ND	ug/L	4.0	1		06/08/18 13:53	91-20-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 18-00696Landmark-Kurt Mfg 1H18
Pace Project No.: 10434052

Sample: MW-15 **Lab ID: 10434052004** Collected: 06/05/18 10:20 Received: 06/05/18 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B							
n-Propylbenzene	ND	ug/L	1.0	1		06/08/18 13:53	103-65-1	
Styrene	ND	ug/L	1.0	1		06/08/18 13:53	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		06/08/18 13:53	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		06/08/18 13:53	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		06/08/18 13:53	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	1		06/08/18 13:53	109-99-9	
Toluene	ND	ug/L	1.0	1		06/08/18 13:53	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		06/08/18 13:53	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		06/08/18 13:53	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		06/08/18 13:53	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		06/08/18 13:53	79-00-5	
Trichloroethene	ND	ug/L	0.40	1		06/08/18 13:53	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		06/08/18 13:53	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	4.0	1		06/08/18 13:53	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		06/08/18 13:53	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		06/08/18 13:53	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		06/08/18 13:53	108-67-8	
Vinyl chloride	ND	ug/L	0.20	1		06/08/18 13:53	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		06/08/18 13:53	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	101	%.	75-125	1		06/08/18 13:53	17060-07-0	
Toluene-d8 (S)	100	%.	75-125	1		06/08/18 13:53	2037-26-5	
4-Bromofluorobenzene (S)	103	%.	75-125	1		06/08/18 13:53	460-00-4	

Sample: MW-8 **Lab ID: 10434052005** Collected: 06/05/18 11:15 Received: 06/05/18 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B							
Acetone	ND	ug/L	20.0	1		06/08/18 14:10	67-64-1	
Allyl chloride	ND	ug/L	4.0	1		06/08/18 14:10	107-05-1	
Benzene	ND	ug/L	1.0	1		06/08/18 14:10	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		06/08/18 14:10	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		06/08/18 14:10	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		06/08/18 14:10	75-27-4	
Bromoform	ND	ug/L	4.0	1		06/08/18 14:10	75-25-2	
Bromomethane	ND	ug/L	4.0	1		06/08/18 14:10	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		06/08/18 14:10	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		06/08/18 14:10	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		06/08/18 14:10	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		06/08/18 14:10	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	1		06/08/18 14:10	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		06/08/18 14:10	108-90-7	
Chloroethane	ND	ug/L	1.0	1		06/08/18 14:10	75-00-3	
Chloroform	ND	ug/L	1.0	1		06/08/18 14:10	67-66-3	
Chloromethane	ND	ug/L	4.0	1		06/08/18 14:10	74-87-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 18-00696Landmark-Kurt Mfg 1H18
Pace Project No.: 10434052

Sample: MW-8 **Lab ID: 10434052005** Collected: 06/05/18 11:15 Received: 06/05/18 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B							
2-Chlorotoluene	ND	ug/L	1.0	1		06/08/18 14:10	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		06/08/18 14:10	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	1		06/08/18 14:10	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		06/08/18 14:10	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		06/08/18 14:10	106-93-4	
Dibromomethane	ND	ug/L	4.0	1		06/08/18 14:10	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		06/08/18 14:10	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		06/08/18 14:10	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		06/08/18 14:10	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		06/08/18 14:10	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		06/08/18 14:10	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		06/08/18 14:10	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		06/08/18 14:10	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		06/08/18 14:10	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		06/08/18 14:10	156-60-5	
Dichlorofluoromethane	ND	ug/L	1.0	1		06/08/18 14:10	75-43-4	
1,2-Dichloropropane	ND	ug/L	4.0	1		06/08/18 14:10	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		06/08/18 14:10	142-28-9	
2,2-Dichloropropane	ND	ug/L	4.0	1		06/08/18 14:10	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		06/08/18 14:10	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		06/08/18 14:10	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	1		06/08/18 14:10	10061-02-6	
Diethyl ether (Ethyl ether)	ND	ug/L	4.0	1		06/08/18 14:10	60-29-7	
Ethylbenzene	ND	ug/L	1.0	1		06/08/18 14:10	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		06/08/18 14:10	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		06/08/18 14:10	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		06/08/18 14:10	99-87-6	
Methylene Chloride	ND	ug/L	4.0	1		06/08/18 14:10	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		06/08/18 14:10	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		06/08/18 14:10	1634-04-4	
Naphthalene	ND	ug/L	4.0	1		06/08/18 14:10	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		06/08/18 14:10	103-65-1	
Styrene	ND	ug/L	1.0	1		06/08/18 14:10	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		06/08/18 14:10	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		06/08/18 14:10	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		06/08/18 14:10	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	1		06/08/18 14:10	109-99-9	
Toluene	ND	ug/L	1.0	1		06/08/18 14:10	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		06/08/18 14:10	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		06/08/18 14:10	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		06/08/18 14:10	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		06/08/18 14:10	79-00-5	
Trichloroethene	ND	ug/L	0.40	1		06/08/18 14:10	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		06/08/18 14:10	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	4.0	1		06/08/18 14:10	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		06/08/18 14:10	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		06/08/18 14:10	95-63-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 18-00696Landmark-Kurt Mfg 1H18
Pace Project No.: 10434052

Sample: MW-8 **Lab ID: 10434052005** Collected: 06/05/18 11:15 Received: 06/05/18 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B							
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		06/08/18 14:10	108-67-8	
Vinyl chloride	ND	ug/L	0.20	1		06/08/18 14:10	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		06/08/18 14:10	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	101	%.	75-125	1		06/08/18 14:10	17060-07-0	
Toluene-d8 (S)	100	%.	75-125	1		06/08/18 14:10	2037-26-5	
4-Bromofluorobenzene (S)	103	%.	75-125	1		06/08/18 14:10	460-00-4	

Sample: MW-3 **Lab ID: 10434052006** Collected: 06/05/18 11:45 Received: 06/05/18 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B							
Acetone	**31.1**	ug/L	20.0	1		06/08/18 15:35	67-64-1	
Allyl chloride	ND	ug/L	4.0	1		06/08/18 15:35	107-05-1	
Benzene	ND	ug/L	1.0	1		06/08/18 15:35	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		06/08/18 15:35	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		06/08/18 15:35	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		06/08/18 15:35	75-27-4	
Bromoform	ND	ug/L	4.0	1		06/08/18 15:35	75-25-2	
Bromomethane	ND	ug/L	4.0	1		06/08/18 15:35	74-83-9	
2-Butanone (MEK)	**5.7**	ug/L	5.0	1		06/08/18 15:35	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		06/08/18 15:35	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		06/08/18 15:35	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		06/08/18 15:35	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	1		06/08/18 15:35	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		06/08/18 15:35	108-90-7	
Chloroethane	ND	ug/L	1.0	1		06/08/18 15:35	75-00-3	
Chloroform	ND	ug/L	1.0	1		06/08/18 15:35	67-66-3	
Chloromethane	ND	ug/L	4.0	1		06/08/18 15:35	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		06/08/18 15:35	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		06/08/18 15:35	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	1		06/08/18 15:35	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		06/08/18 15:35	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		06/08/18 15:35	106-93-4	
Dibromomethane	ND	ug/L	4.0	1		06/08/18 15:35	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		06/08/18 15:35	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		06/08/18 15:35	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		06/08/18 15:35	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		06/08/18 15:35	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		06/08/18 15:35	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		06/08/18 15:35	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		06/08/18 15:35	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		06/08/18 15:35	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		06/08/18 15:35	156-60-5	
Dichlorofluoromethane	ND	ug/L	1.0	1		06/08/18 15:35	75-43-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 18-00696Landmark-Kurt Mfg 1H18
Pace Project No.: 10434052

Sample: MW-3 **Lab ID: 10434052006** Collected: 06/05/18 11:45 Received: 06/05/18 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B							
1,2-Dichloropropane	ND	ug/L	4.0	1		06/08/18 15:35	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		06/08/18 15:35	142-28-9	
2,2-Dichloropropane	ND	ug/L	4.0	1		06/08/18 15:35	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		06/08/18 15:35	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		06/08/18 15:35	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	1		06/08/18 15:35	10061-02-6	
Diethyl ether (Ethyl ether)	ND	ug/L	4.0	1		06/08/18 15:35	60-29-7	
Ethylbenzene	ND	ug/L	1.0	1		06/08/18 15:35	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		06/08/18 15:35	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		06/08/18 15:35	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		06/08/18 15:35	99-87-6	
Methylene Chloride	ND	ug/L	4.0	1		06/08/18 15:35	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		06/08/18 15:35	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		06/08/18 15:35	1634-04-4	
Naphthalene	ND	ug/L	4.0	1		06/08/18 15:35	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		06/08/18 15:35	103-65-1	
Styrene	ND	ug/L	1.0	1		06/08/18 15:35	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		06/08/18 15:35	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		06/08/18 15:35	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		06/08/18 15:35	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	1		06/08/18 15:35	109-99-9	
Toluene	ND	ug/L	1.0	1		06/08/18 15:35	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		06/08/18 15:35	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		06/08/18 15:35	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		06/08/18 15:35	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		06/08/18 15:35	79-00-5	
Trichloroethene	ND	ug/L	0.40	1		06/08/18 15:35	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		06/08/18 15:35	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	4.0	1		06/08/18 15:35	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		06/08/18 15:35	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		06/08/18 15:35	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		06/08/18 15:35	108-67-8	
Vinyl chloride	ND	ug/L	0.20	1		06/08/18 15:35	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		06/08/18 15:35	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	101	%.	75-125	1		06/08/18 15:35	17060-07-0	
Toluene-d8 (S)	100	%.	75-125	1		06/08/18 15:35	2037-26-5	
4-Bromofluorobenzene (S)	102	%.	75-125	1		06/08/18 15:35	460-00-4	

Sample: Recovery Well C **Lab ID: 10434052007** Collected: 06/05/18 12:45 Received: 06/05/18 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B							
Acetone	ND	ug/L	40.0	2		06/08/18 16:27	67-64-1	
Allyl chloride	ND	ug/L	8.0	2		06/08/18 16:27	107-05-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
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ANALYTICAL RESULTS

Project: 18-00696Landmark-Kurt Mfg 1H18
Pace Project No.: 10434052

Sample: Recovery Well C **Lab ID: 10434052007** Collected: 06/05/18 12:45 Received: 06/05/18 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B							
Benzene	ND	ug/L	2.0	2		06/08/18 16:27	71-43-2	
Bromobenzene	ND	ug/L	2.0	2		06/08/18 16:27	108-86-1	
Bromochloromethane	ND	ug/L	2.0	2		06/08/18 16:27	74-97-5	
Bromodichloromethane	ND	ug/L	2.0	2		06/08/18 16:27	75-27-4	
Bromoform	ND	ug/L	8.0	2		06/08/18 16:27	75-25-2	
Bromomethane	ND	ug/L	8.0	2		06/08/18 16:27	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	2		06/08/18 16:27	78-93-3	
n-Butylbenzene	ND	ug/L	2.0	2		06/08/18 16:27	104-51-8	
sec-Butylbenzene	ND	ug/L	2.0	2		06/08/18 16:27	135-98-8	
tert-Butylbenzene	ND	ug/L	2.0	2		06/08/18 16:27	98-06-6	
Carbon tetrachloride	ND	ug/L	2.0	2		06/08/18 16:27	56-23-5	
Chlorobenzene	ND	ug/L	2.0	2		06/08/18 16:27	108-90-7	
Chloroethane	ND	ug/L	2.0	2		06/08/18 16:27	75-00-3	
Chloroform	ND	ug/L	2.0	2		06/08/18 16:27	67-66-3	
Chloromethane	ND	ug/L	8.0	2		06/08/18 16:27	74-87-3	
2-Chlorotoluene	ND	ug/L	2.0	2		06/08/18 16:27	95-49-8	
4-Chlorotoluene	ND	ug/L	2.0	2		06/08/18 16:27	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	8.0	2		06/08/18 16:27	96-12-8	
Dibromochloromethane	ND	ug/L	2.0	2		06/08/18 16:27	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	2.0	2		06/08/18 16:27	106-93-4	
Dibromomethane	ND	ug/L	8.0	2		06/08/18 16:27	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	2.0	2		06/08/18 16:27	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	2.0	2		06/08/18 16:27	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	2.0	2		06/08/18 16:27	106-46-7	
Dichlorodifluoromethane	ND	ug/L	2.0	2		06/08/18 16:27	75-71-8	
1,1-Dichloroethane	ND	ug/L	2.0	2		06/08/18 16:27	75-34-3	
1,2-Dichloroethane	ND	ug/L	2.0	2		06/08/18 16:27	107-06-2	
1,1-Dichloroethene	ND	ug/L	2.0	2		06/08/18 16:27	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	2.0	2		06/08/18 16:27	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	2.0	2		06/08/18 16:27	156-60-5	
Dichlorofluoromethane	ND	ug/L	2.0	2		06/08/18 16:27	75-43-4	
1,2-Dichloropropane	ND	ug/L	8.0	2		06/08/18 16:27	78-87-5	
1,3-Dichloropropane	ND	ug/L	2.0	2		06/08/18 16:27	142-28-9	
2,2-Dichloropropane	ND	ug/L	8.0	2		06/08/18 16:27	594-20-7	
1,1-Dichloropropene	ND	ug/L	2.0	2		06/08/18 16:27	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	8.0	2		06/08/18 16:27	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	8.0	2		06/08/18 16:27	10061-02-6	
Diethyl ether (Ethyl ether)	ND	ug/L	8.0	2		06/08/18 16:27	60-29-7	
Ethylbenzene	ND	ug/L	2.0	2		06/08/18 16:27	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	2		06/08/18 16:27	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	2.0	2		06/08/18 16:27	98-82-8	
p-Isopropyltoluene	ND	ug/L	2.0	2		06/08/18 16:27	99-87-6	
Methylene Chloride	ND	ug/L	8.0	2		06/08/18 16:27	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	2		06/08/18 16:27	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	2.0	2		06/08/18 16:27	1634-04-4	
Naphthalene	ND	ug/L	8.0	2		06/08/18 16:27	91-20-3	
n-Propylbenzene	ND	ug/L	2.0	2		06/08/18 16:27	103-65-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 18-00696Landmark-Kurt Mfg 1H18
Pace Project No.: 10434052

Sample: Recovery Well C **Lab ID: 10434052007** Collected: 06/05/18 12:45 Received: 06/05/18 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B							
Styrene	ND	ug/L	2.0	2		06/08/18 16:27	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	2.0	2		06/08/18 16:27	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	2.0	2		06/08/18 16:27	79-34-5	
Tetrachloroethene	**825**	ug/L	10.0	10		06/12/18 12:46	127-18-4	
Tetrahydrofuran	ND	ug/L	20.0	2		06/08/18 16:27	109-99-9	
Toluene	ND	ug/L	2.0	2		06/08/18 16:27	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	2.0	2		06/08/18 16:27	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	2.0	2		06/08/18 16:27	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	2.0	2		06/08/18 16:27	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	2.0	2		06/08/18 16:27	79-00-5	
Trichloroethene	**6.5**	ug/L	0.80	2		06/08/18 16:27	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	2		06/08/18 16:27	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	8.0	2		06/08/18 16:27	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	2.0	2		06/08/18 16:27	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/L	2.0	2		06/08/18 16:27	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	2.0	2		06/08/18 16:27	108-67-8	
Vinyl chloride	ND	ug/L	0.40	2		06/08/18 16:27	75-01-4	
Xylene (Total)	ND	ug/L	6.0	2		06/08/18 16:27	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	101	%.	75-125	2		06/08/18 16:27	17060-07-0	
Toluene-d8 (S)	99	%.	75-125	2		06/08/18 16:27	2037-26-5	
4-Bromofluorobenzene (S)	105	%.	75-125	2		06/08/18 16:27	460-00-4	

Sample: MW-6 **Lab ID: 10434052008** Collected: 06/05/18 13:25 Received: 06/05/18 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B							
Acetone	ND	ug/L	20.0	1		06/08/18 15:52	67-64-1	
Allyl chloride	ND	ug/L	4.0	1		06/08/18 15:52	107-05-1	
Benzene	ND	ug/L	1.0	1		06/08/18 15:52	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		06/08/18 15:52	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		06/08/18 15:52	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		06/08/18 15:52	75-27-4	
Bromoform	ND	ug/L	4.0	1		06/08/18 15:52	75-25-2	
Bromomethane	ND	ug/L	4.0	1		06/08/18 15:52	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		06/08/18 15:52	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		06/08/18 15:52	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		06/08/18 15:52	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		06/08/18 15:52	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	1		06/08/18 15:52	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		06/08/18 15:52	108-90-7	
Chloroethane	ND	ug/L	1.0	1		06/08/18 15:52	75-00-3	
Chloroform	ND	ug/L	1.0	1		06/08/18 15:52	67-66-3	
Chloromethane	ND	ug/L	4.0	1		06/08/18 15:52	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		06/08/18 15:52	95-49-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 18-00696Landmark-Kurt Mfg 1H18
Pace Project No.: 10434052

Sample: MW-6 **Lab ID: 10434052008** Collected: 06/05/18 13:25 Received: 06/05/18 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B							
4-Chlorotoluene	ND	ug/L	1.0	1		06/08/18 15:52	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	1		06/08/18 15:52	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		06/08/18 15:52	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		06/08/18 15:52	106-93-4	
Dibromomethane	ND	ug/L	4.0	1		06/08/18 15:52	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		06/08/18 15:52	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		06/08/18 15:52	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		06/08/18 15:52	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		06/08/18 15:52	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		06/08/18 15:52	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		06/08/18 15:52	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		06/08/18 15:52	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		06/08/18 15:52	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		06/08/18 15:52	156-60-5	
Dichlorofluoromethane	ND	ug/L	1.0	1		06/08/18 15:52	75-43-4	
1,2-Dichloropropane	ND	ug/L	4.0	1		06/08/18 15:52	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		06/08/18 15:52	142-28-9	
2,2-Dichloropropane	ND	ug/L	4.0	1		06/08/18 15:52	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		06/08/18 15:52	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		06/08/18 15:52	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	1		06/08/18 15:52	10061-02-6	
Diethyl ether (Ethyl ether)	ND	ug/L	4.0	1		06/08/18 15:52	60-29-7	
Ethylbenzene	ND	ug/L	1.0	1		06/08/18 15:52	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		06/08/18 15:52	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		06/08/18 15:52	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		06/08/18 15:52	99-87-6	
Methylene Chloride	ND	ug/L	4.0	1		06/08/18 15:52	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		06/08/18 15:52	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		06/08/18 15:52	1634-04-4	
Naphthalene	ND	ug/L	4.0	1		06/08/18 15:52	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		06/08/18 15:52	103-65-1	
Styrene	ND	ug/L	1.0	1		06/08/18 15:52	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		06/08/18 15:52	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		06/08/18 15:52	79-34-5	
Tetrachloroethene	**236**	ug/L	2.0	2		06/12/18 12:29	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	1		06/08/18 15:52	109-99-9	
Toluene	ND	ug/L	1.0	1		06/08/18 15:52	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		06/08/18 15:52	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		06/08/18 15:52	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		06/08/18 15:52	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		06/08/18 15:52	79-00-5	
Trichloroethene	**2.1**	ug/L	0.40	1		06/08/18 15:52	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		06/08/18 15:52	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	4.0	1		06/08/18 15:52	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		06/08/18 15:52	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		06/08/18 15:52	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		06/08/18 15:52	108-67-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
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ANALYTICAL RESULTS

Project: 18-00696Landmark-Kurt Mfg 1H18
Pace Project No.: 10434052

Sample: MW-6 **Lab ID: 10434052008** Collected: 06/05/18 13:25 Received: 06/05/18 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B							
Vinyl chloride	ND	ug/L	0.20	1		06/08/18 15:52	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		06/08/18 15:52	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	101	%.	75-125	1		06/08/18 15:52	17060-07-0	
Toluene-d8 (S)	99	%.	75-125	1		06/08/18 15:52	2037-26-5	
4-Bromofluorobenzene (S)	102	%.	75-125	1		06/08/18 15:52	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
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QUALITY CONTROL DATA

Project: 18-00696Landmark-Kurt Mfg 1H18
Pace Project No.: 10434052

QC Batch: 543360 Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B Analysis Description: 8260B MSV 465 W
Associated Lab Samples: 10434052001, 10434052002, 10434052003, 10434052004, 10434052005, 10434052006, 10434052007, 10434052008

METHOD BLANK: 2954597 Matrix: Water
Associated Lab Samples: 10434052001, 10434052002, 10434052003, 10434052004, 10434052005, 10434052006, 10434052007, 10434052008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	06/08/18 10:12	
1,1,1-Trichloroethane	ug/L	ND	1.0	06/08/18 10:12	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	06/08/18 10:12	
1,1,2-Trichloroethane	ug/L	ND	1.0	06/08/18 10:12	
1,1,2-Trichlorotrifluoroethane	ug/L	ND	1.0	06/08/18 10:12	
1,1-Dichloroethane	ug/L	ND	1.0	06/08/18 10:12	
1,1-Dichloroethene	ug/L	ND	1.0	06/08/18 10:12	
1,1-Dichloropropene	ug/L	ND	1.0	06/08/18 10:12	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	06/08/18 10:12	
1,2,3-Trichloropropane	ug/L	ND	4.0	06/08/18 10:12	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	06/08/18 10:12	
1,2,4-Trimethylbenzene	ug/L	ND	1.0	06/08/18 10:12	
1,2-Dibromo-3-chloropropane	ug/L	ND	4.0	06/08/18 10:12	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	06/08/18 10:12	
1,2-Dichlorobenzene	ug/L	ND	1.0	06/08/18 10:12	
1,2-Dichloroethane	ug/L	ND	1.0	06/08/18 10:12	
1,2-Dichloropropane	ug/L	ND	4.0	06/08/18 10:12	
1,3,5-Trimethylbenzene	ug/L	ND	1.0	06/08/18 10:12	
1,3-Dichlorobenzene	ug/L	ND	1.0	06/08/18 10:12	
1,3-Dichloropropane	ug/L	ND	1.0	06/08/18 10:12	
1,4-Dichlorobenzene	ug/L	ND	1.0	06/08/18 10:12	
2,2-Dichloropropane	ug/L	ND	4.0	06/08/18 10:12	
2-Butanone (MEK)	ug/L	ND	5.0	06/08/18 10:12	
2-Chlorotoluene	ug/L	ND	1.0	06/08/18 10:12	
4-Chlorotoluene	ug/L	ND	1.0	06/08/18 10:12	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	06/08/18 10:12	
Acetone	ug/L	ND	20.0	06/08/18 10:12	
Allyl chloride	ug/L	ND	4.0	06/08/18 10:12	
Benzene	ug/L	ND	1.0	06/08/18 10:12	
Bromobenzene	ug/L	ND	1.0	06/08/18 10:12	
Bromochloromethane	ug/L	ND	1.0	06/08/18 10:12	
Bromodichloromethane	ug/L	ND	1.0	06/08/18 10:12	
Bromoform	ug/L	ND	4.0	06/08/18 10:12	
Bromomethane	ug/L	ND	4.0	06/08/18 10:12	
Carbon tetrachloride	ug/L	ND	1.0	06/08/18 10:12	
Chlorobenzene	ug/L	ND	1.0	06/08/18 10:12	
Chloroethane	ug/L	ND	1.0	06/08/18 10:12	
Chloroform	ug/L	ND	1.0	06/08/18 10:12	
Chloromethane	ug/L	ND	4.0	06/08/18 10:12	
cis-1,2-Dichloroethene	ug/L	ND	1.0	06/08/18 10:12	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 18-00696Landmark-Kurt Mfg 1H18
Pace Project No.: 10434052

METHOD BLANK: 2954597 Matrix: Water
Associated Lab Samples: 10434052001, 10434052002, 10434052003, 10434052004, 10434052005, 10434052006, 10434052007, 10434052008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
cis-1,3-Dichloropropene	ug/L	ND	4.0	06/08/18 10:12	
Dibromochloromethane	ug/L	ND	1.0	06/08/18 10:12	
Dibromomethane	ug/L	ND	4.0	06/08/18 10:12	
Dichlorodifluoromethane	ug/L	ND	1.0	06/08/18 10:12	
Dichlorofluoromethane	ug/L	ND	1.0	06/08/18 10:12	
Diethyl ether (Ethyl ether)	ug/L	ND	4.0	06/08/18 10:12	
Ethylbenzene	ug/L	ND	1.0	06/08/18 10:12	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	06/08/18 10:12	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	06/08/18 10:12	
Methyl-tert-butyl ether	ug/L	ND	1.0	06/08/18 10:12	
Methylene Chloride	ug/L	ND	4.0	06/08/18 10:12	
n-Butylbenzene	ug/L	ND	1.0	06/08/18 10:12	
n-Propylbenzene	ug/L	ND	1.0	06/08/18 10:12	
Naphthalene	ug/L	ND	4.0	06/08/18 10:12	
p-Isopropyltoluene	ug/L	ND	1.0	06/08/18 10:12	
sec-Butylbenzene	ug/L	ND	1.0	06/08/18 10:12	
Styrene	ug/L	ND	1.0	06/08/18 10:12	
tert-Butylbenzene	ug/L	ND	1.0	06/08/18 10:12	
Tetrachloroethene	ug/L	ND	1.0	06/08/18 10:12	
Tetrahydrofuran	ug/L	ND	10.0	06/08/18 10:12	
Toluene	ug/L	ND	1.0	06/08/18 10:12	
trans-1,2-Dichloroethene	ug/L	ND	1.0	06/08/18 10:12	
trans-1,3-Dichloropropene	ug/L	ND	4.0	06/08/18 10:12	
Trichloroethene	ug/L	ND	0.40	06/08/18 10:12	
Trichlorofluoromethane	ug/L	ND	1.0	06/08/18 10:12	
Vinyl chloride	ug/L	ND	0.20	06/08/18 10:12	
Xylene (Total)	ug/L	ND	3.0	06/08/18 10:12	
1,2-Dichloroethane-d4 (S)	%.	101	75-125	06/08/18 10:12	
4-Bromofluorobenzene (S)	%.	100	75-125	06/08/18 10:12	
Toluene-d8 (S)	%.	100	75-125	06/08/18 10:12	

LABORATORY CONTROL SAMPLE: 2954598

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	20	19.3	97	75-125	
1,1,1-Trichloroethane	ug/L	20	20.5	103	75-125	
1,1,2,2-Tetrachloroethane	ug/L	20	19.2	96	75-129	
1,1,2-Trichloroethane	ug/L	20	20.7	103	75-125	
1,1,2-Trichlorotrifluoroethane	ug/L	20	22.3	111	74-125	
1,1-Dichloroethane	ug/L	20	20.8	104	75-127	
1,1-Dichloroethene	ug/L	20	20.7	104	73-125	
1,1-Dichloropropene	ug/L	20	21.4	107	75-125	
1,2,3-Trichlorobenzene	ug/L	20	17.4	87	74-126	

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REPORT OF LABORATORY ANALYSIS

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(612)607-1700

QUALITY CONTROL DATA

Project: 18-00696Landmark-Kurt Mfg 1H18
Pace Project No.: 10434052

LABORATORY CONTROL SAMPLE: 2954598

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,3-Trichloropropane	ug/L	20	20.4	102	75-125	
1,2,4-Trichlorobenzene	ug/L	20	17.8	89	75-125	
1,2,4-Trimethylbenzene	ug/L	20	20.0	100	75-125	
1,2-Dibromo-3-chloropropane	ug/L	50	47.3	95	64-129	
1,2-Dibromoethane (EDB)	ug/L	20	21.5	108	75-125	
1,2-Dichlorobenzene	ug/L	20	19.2	96	75-125	
1,2-Dichloroethane	ug/L	20	19.7	99	74-125	
1,2-Dichloropropane	ug/L	20	20.0	100	75-125	
1,3,5-Trimethylbenzene	ug/L	20	19.2	96	75-125	
1,3-Dichlorobenzene	ug/L	20	18.0	90	75-125	
1,3-Dichloropropane	ug/L	20	21.1	105	75-125	
1,4-Dichlorobenzene	ug/L	20	18.3	92	75-125	
2,2-Dichloropropane	ug/L	20	23.7	119	70-125	
2-Butanone (MEK)	ug/L	100	99.8	100	57-130	
2-Chlorotoluene	ug/L	20	19.3	96	75-125	
4-Chlorotoluene	ug/L	20	18.3	92	75-125	
4-Methyl-2-pentanone (MIBK)	ug/L	100	102	102	69-137	
Acetone	ug/L	100	87.4	87	32-150	
Allyl chloride	ug/L	20	19.6	98	64-135	
Benzene	ug/L	20	19.9	100	75-126	
Bromobenzene	ug/L	20	18.7	94	75-125	
Bromochloromethane	ug/L	20	21.2	106	75-126	
Bromodichloromethane	ug/L	20	19.0	95	75-125	
Bromoform	ug/L	20	18.0	90	67-125	
Bromomethane	ug/L	20	20.8	104	30-150	
Carbon tetrachloride	ug/L	20	20.0	100	75-125	
Chlorobenzene	ug/L	20	19.8	99	75-125	
Chloroethane	ug/L	20	22.6	113	64-142	
Chloroform	ug/L	20	19.0	95	75-125	
Chloromethane	ug/L	20	18.9	95	40-150	
cis-1,2-Dichloroethene	ug/L	20	21.2	106	75-125	
cis-1,3-Dichloropropene	ug/L	20	20.9	105	75-125	
Dibromochloromethane	ug/L	20	19.2	96	75-125	
Dibromomethane	ug/L	20	20.5	102	75-125	
Dichlorodifluoromethane	ug/L	20	24.7	124	61-132	
Dichlorofluoromethane	ug/L	20	20.3	102	75-129	
Diethyl ether (Ethyl ether)	ug/L	20	22.5	113	74-125	
Ethylbenzene	ug/L	20	19.3	96	75-125	
Hexachloro-1,3-butadiene	ug/L	20	19.0	95	75-125	
Isopropylbenzene (Cumene)	ug/L	20	20.5	103	75-125	
Methyl-tert-butyl ether	ug/L	20	23.2	116	73-129	
Methylene Chloride	ug/L	20	20.2	101	72-125	
n-Butylbenzene	ug/L	20	18.9	95	75-125	
n-Propylbenzene	ug/L	20	18.7	93	75-125	
Naphthalene	ug/L	20	18.3	92	65-126	
p-Isopropyltoluene	ug/L	20	19.5	97	75-125	
sec-Butylbenzene	ug/L	20	19.6	98	75-125	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(612)607-1700

QUALITY CONTROL DATA

Project: 18-00696Landmark-Kurt Mfg 1H18
Pace Project No.: 10434052

LABORATORY CONTROL SAMPLE: 2954598

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Styrene	ug/L	20	20.2	101	75-125	
tert-Butylbenzene	ug/L	20	19.2	96	75-125	
Tetrachloroethene	ug/L	20	18.6	93	75-125	
Tetrahydrofuran	ug/L	200	216	108	30-150	
Toluene	ug/L	20	19.8	99	74-125	
trans-1,2-Dichloroethene	ug/L	20	22.4	112	70-126	
trans-1,3-Dichloropropene	ug/L	20	21.0	105	75-125	
Trichloroethene	ug/L	20	20.2	101	75-125	
Trichlorofluoromethane	ug/L	20	20.1	100	71-131	
Vinyl chloride	ug/L	20	20.6	103	65-137	
Xylene (Total)	ug/L	60	60.8	101	75-125	
1,2-Dichloroethane-d4 (S)	%.			102	75-125	
4-Bromofluorobenzene (S)	%.			99	75-125	
Toluene-d8 (S)	%.			101	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2954599 2954600

Parameter	Units	10434873001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	ND	20	20	15.4	19.8	77	99	69-130	25	30	
1,1,1-Trichloroethane	ug/L	ND	20	20	18.3	22.4	92	112	72-133	20	30	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	15.6	19.6	78	98	60-137	22	30	
1,1,2-Trichloroethane	ug/L	ND	20	20	16.3	20.6	82	103	70-128	23	30	
1,1,2-Trichlorotrifluoroethane	ug/L	ND	20	20	19.8	23.7	99	118	64-147	18	30	
1,1-Dichloroethane	ug/L	ND	20	20	18.3	22.1	91	110	64-136	19	30	
1,1-Dichloroethene	ug/L	ND	20	20	19.3	22.7	96	113	67-139	16	30	
1,1-Dichloropropene	ug/L	ND	20	20	18.7	23.0	93	115	69-131	21	30	
1,2,3-Trichlorobenzene	ug/L	ND	20	20	14.4	17.9	72	89	60-138	22	30	
1,2,3-Trichloropropane	ug/L	ND	20	20	16.5	20.5	82	102	67-129	22	30	
1,2,4-Trichlorobenzene	ug/L	ND	20	20	15.0	19.3	75	97	71-125	25	30	
1,2,4-Trimethylbenzene	ug/L	1.6	20	20	18.4	22.9	84	107	67-130	22	30	
1,2-Dibromo-3-chloropropane	ug/L	ND	50	50	37.4	47.8	75	96	52-141	24	30	
1,2-Dibromoethane (EDB)	ug/L	ND	20	20	17.0	21.2	85	106	66-130	22	30	
1,2-Dichlorobenzene	ug/L	ND	20	20	16.2	20.5	81	103	72-126	24	30	
1,2-Dichloroethane	ug/L	ND	20	20	15.9	19.8	80	99	64-125	22	30	
1,2-Dichloropropane	ug/L	ND	20	20	16.8	20.7	84	103	65-128	21	30	
1,3,5-Trimethylbenzene	ug/L	1.0	20	20	16.9	21.0	79	100	63-139	22	30	
1,3-Dichlorobenzene	ug/L	ND	20	20	15.1	19.6	76	98	70-128	26	30	
1,3-Dichloropropane	ug/L	ND	20	20	16.6	20.6	83	103	70-131	21	30	
1,4-Dichlorobenzene	ug/L	ND	20	20	15.3	19.7	77	98	74-125	25	30	
2,2-Dichloropropane	ug/L	ND	20	20	20.9	24.6	104	123	58-137	17	30	
2-Butanone (MEK)	ug/L	ND	100	100	77.7	94.1	78	94	45-132	19	30	
2-Chlorotoluene	ug/L	ND	20	20	16.1	19.8	81	99	66-134	20	30	
4-Chlorotoluene	ug/L	ND	20	20	15.5	19.6	78	98	70-132	23	30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 18-00696Landmark-Kurt Mfg 1H18
Pace Project No.: 10434052

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2954599 2954600

Parameter	Units	10434873001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	100	81.6	97.6	82	98	54-143	18	30	
Acetone	ug/L	ND	100	100	68.2	85.7	68	86	51-150	23	30	
Allyl chloride	ug/L	ND	20	20	16.7	19.6	84	98	52-150	16	30	
Benzene	ug/L	5.6	20	20	21.5	25.5	79	99	62-140	17	30	
Bromobenzene	ug/L	ND	20	20	15.6	19.7	78	99	70-128	23	30	
Bromochloromethane	ug/L	ND	20	20	17.4	21.8	87	109	65-131	23	30	
Bromodichloromethane	ug/L	ND	20	20	15.4	19.1	77	95	74-127	21	30	
Bromoform	ug/L	ND	20	20	13.9	17.8	69	89	59-125	25	30	
Bromomethane	ug/L	ND	20	20	20.2	18.3	101	91	30-149	10	30	
Carbon tetrachloride	ug/L	ND	20	20	18.4	22.5	92	113	67-134	20	30	
Chlorobenzene	ug/L	ND	20	20	16.3	20.4	82	102	72-131	22	30	
Chloroethane	ug/L	ND	20	20	20.9	20.8	105	104	55-150	0	30	
Chloroform	ug/L	ND	20	20	16.3	20.0	81	100	67-125	20	30	
Chloromethane	ug/L	ND	20	20	18.2	16.9	91	85	43-148	7	30	
cis-1,2-Dichloroethene	ug/L	ND	20	20	18.4	22.5	92	112	62-132	20	30	
cis-1,3-Dichloropropene	ug/L	ND	20	20	16.9	20.7	85	103	63-129	20	30	
Dibromochloromethane	ug/L	ND	20	20	15.5	19.5	78	97	67-127	23	30	
Dibromomethane	ug/L	ND	20	20	16.4	20.8	82	104	68-132	24	30	
Dichlorodifluoromethane	ug/L	1.3	20	20	25.4	21.7	121	102	59-144	16	30	
Dichlorofluoromethane	ug/L	ND	20	20	18.8	20.3	94	101	63-144	8	30	
Diethyl ether (Ethyl ether)	ug/L	ND	20	20	17.5	22.2	88	111	52-139	23	30	
Ethylbenzene	ug/L	10.3	20	20	24.6	30.3	71	100	75-131	21	30	M1
Hexachloro-1,3-butadiene	ug/L	ND	20	20	16.7	21.6	83	108	58-146	26	30	
Isopropylbenzene (Cumene)	ug/L	1.4	20	20	18.6	23.3	86	110	71-132	23	30	
Methyl-tert-butyl ether	ug/L	ND	20	20	18.4	22.3	92	111	65-130	19	30	
Methylene Chloride	ug/L	ND	20	20	16.3	19.4	81	97	66-125	17	30	
n-Butylbenzene	ug/L	ND	20	20	16.7	21.4	84	107	57-141	25	30	
n-Propylbenzene	ug/L	1.7	20	20	17.9	22.1	81	102	70-131	21	30	
Naphthalene	ug/L	ND	20	20	15.1	18.7	76	93	48-134	21	30	
p-Isopropyltoluene	ug/L	ND	20	20	17.3	21.8	86	109	66-136	23	30	
sec-Butylbenzene	ug/L	ND	20	20	17.8	22.1	87	109	69-134	22	30	
Styrene	ug/L	ND	20	20	16.2	21.3	81	106	65-134	27	30	
tert-Butylbenzene	ug/L	ND	20	20	17.1	21.0	86	105	71-130	20	30	
Tetrachloroethene	ug/L	ND	20	20	16.5	20.6	83	103	69-135	22	30	
Tetrahydrofuran	ug/L	ND	200	200	163	209	81	104	48-150	25	30	
Toluene	ug/L	ND	20	20	17.5	21.2	84	103	68-132	19	30	
trans-1,2-Dichloroethene	ug/L	ND	20	20	19.3	22.3	97	111	61-134	14	30	
trans-1,3-Dichloropropene	ug/L	ND	20	20	16.7	20.5	83	102	66-125	20	30	
Trichloroethene	ug/L	ND	20	20	17.2	21.6	86	108	64-136	22	30	
Trichlorofluoromethane	ug/L	ND	20	20	19.0	19.8	95	99	65-146	4	30	
Vinyl chloride	ug/L	ND	20	20	20.0	18.5	100	93	51-150	8	30	
Xylene (Total)	ug/L	ND	60	60	53.5	67.8	85	108	69-135	24	30	
1,2-Dichloroethane-d4 (S)	%.						102	102	75-125			
4-Bromofluorobenzene (S)	%.						102	100	75-125			
Toluene-d8 (S)	%.						100	100	75-125			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: 18-00696Landmark-Kurt Mfg 1H18
Pace Project No.: 10434052

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 18-00696Landmark-Kurt Mfg 1H18
Pace Project No.: 10434052

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10434052001	**Deep Production Well**	EPA 8260B	543360		
10434052002	**PC-2**	EPA 8260B	543360		
10434052003	**MW-12**	EPA 8260B	543360		
10434052004	**MW-15**	EPA 8260B	543360		
10434052005	**MW-8**	EPA 8260B	543360		
10434052006	**MW-3**	EPA 8260B	543360		
10434052007	**Recovery Well C**	EPA 8260B	543360		
10434052008	**MW-6**	EPA 8260B	543360		

Pace Analytical®
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Docu

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed acc

WO# : 10434052

10434052

2201287

Section A Required Client Information:

Company: Landmark Environmental
Address: c/o Pace MN Field
Email To:
Phone: Fax:
Requested Due Date/TAT:

Section B Required Project Information:

Report To: David Anderson
Copy To:
Purchase Order No.:
Project Name: 18-00696, Landmark - Kurt Mfg. IH 2018
Project Number:

Section C Invoice Information:

Attention: C.J. Ruikkie
Company Name:
Address:
Pace Quote Reference: DJA
Pace Project Manager: Jennifer Anderson
Pace Profile #: 10351

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: _____

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes MATRIX / CODE

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N	Analysis Test: 8260 VOC's	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	Deep Production Well	WT				6/4/18	0955		4				4						✓		001
2	PC-2	↓				↓	1055		4				4						✓		002
3	MW-12	WT				6/5/18	0930		4				4						✓		003
4	MW-15	↓				↓	1020		4				4						✓		004
5	MW-8						1115		4				4						✓		005
6	MW-3						1145		4				4						✓		006
7	Recovery Well C						1245		4				4						✓		007
8	MW-6	↓				↓	1325		4				4						✓		008
9						DJA 6/5/18															
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	David Anderson/Pace	6/5/18	1400	DJA Pace	6/6/18	1900	3.4	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: David Anderson

SIGNATURE of SAMPLER: David Anderson

DATE Signed (MM/DD/YY): 6/5/18

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical	Document Name: **Sample Condition Upon Receipt Form**	Document Revised: 02May2018 Page 1 of 2
	Document No.: **F-MN-L-213-rev.23**	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: Landmark Environmental

Project #: WO#: 10434052

PM: JMA Due Date: 06/12/18

CLIENT: PASI-MNFLD

Courier: ☐Fed Ex ☐UPS ☐USPS ☐Client ☐Commercial ☒Pace ☐SpeeDee ☐Other:_____

Tracking Number: _____

Custody Seal on Cooler/Box Present? ☐Yes ☒No **Seals Intact?** ☐Yes ☒No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☒Bubble Wrap ☒Bubble Bags ☐None ☐Other:_____ **Temp Blank?** ☒Yes ☐No

Thermometer Used: ☐G87A9170600254 ☒G87A9155100842 **Type of Ice:** ☒Wet ☐Blue ☐None ☐Dry ☐Melted

Cooler Temp Read (°C): 3.4 **Cooler Temp Corrected (°C):** 3.4 **Biological Tissue Frozen?** ☐Yes ☐No ☒N/A

Temp should be above freezing to 6°C **Correction Factor:** True **Date and Initials of Person Examining Contents:** HE 6/5/18

USDA Regulated Soil (☒N/A, water sample)

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA. MS, NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)? ☐Yes ☐No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐Yes ☐No

If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present?	☒Yes	☐No		1.
Chain of Custody Filled Out?	☒Yes	☐No		2.
Chain of Custody Relinquished?	☒Yes	☐No		3.
Sampler Name and/or Signature on COC?	☒Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time?	☒Yes	☐No		5.
Short Hold Time Analysis (<72 hr)?	☐Yes	☒No		6.
Rush Turn Around Time Requested?	☐Yes	☒No		7.
Sufficient Volume?	☒Yes	☐No		8.
Correct Containers Used?	☒Yes	☐No		9.
-Pace Containers Used?	☒Yes	☐No		
Containers Intact?	☒Yes	☐No		10.
Filtered Volume Received for Dissolved Tests?	☐Yes	☐No	☒N/A	11. Note if sediment is visible in the dissolved container
Is sufficient information available to reconcile the samples to the COC? Matrix: WT	☒Yes	☐No		12.
All containers needing acid/base preservation have been checked?	☐Yes	☐No	☒N/A	13. ☐HNO_3 ☐H_2SO_4 ☐NaOH Positive for Res. Chlorine? Y N
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, <2pH, NaOH >9 Sulfide, NaOH>12 Cyanide)	☐Yes	☐No	☒N/A	Sample #
Exceptions: (VOA) Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxin/PFAS	☒Yes	☐No	☐N/A	Initial when completed: Lot # of added preservative:
Headspace in VOA Vials (>6mm)?	☐Yes	☒No	☐N/A	14.
Trip Blank Present?	☐Yes	☒No	☐N/A	15.
Trip Blank Custody Seals Present?	☐Yes	☐No	☒N/A	
Pace Trip Blank Lot # (if purchased):				

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐Yes ☐No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager Review: _____ **Date:** 06/05/2018

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers).

Pace Analytical
Field Services Division

Pace Analytical Services, LLC
1700 Elm Street SE
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6388
www.pacelabs.com

June 14, 2018

Mr. Jason Skramstad
Landmark Environmental
2042 W. 98th Street
Bloomington, MN 55431

A2LA ACCREDITED
Cert #3819.01 (ISO/IEC 17025:2005)
NELAP ACCREDITED TNI FIELD SAMPLING & MEASUREMENT ORGANIZATION

RE: Client Project ID: Field Proj. # 18-00696
Lab Project ID: 10434052

Dear Mr. Skramstad:

Enclosed is the report of laboratory analysis for samples collected June 4-5, 2018 from the Kurt Mfg. site in Fridley, MN, for the first half of 2018. Eight wells were sampled and analyzed for 8260 VOC's. Eleven wells were measured for water levels only.

Copies of our Chain-of-Custody forms and the Field Data Sheets are provided. Footnotes are given at the end of the report. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

David Anderson

David J. Anderson
Project Manager
(612) 607-6377

State of Minnesota: Lab 027-053-0137

Pace Analytical® Field Services Division

Landmark Environ. - Kurt Mfg. Field Proj.# 18-00696

pH and Conductivity

Field Calibration and Verification Sheet

Technician(s) DJA Date 6/4/18 Page 1 of 1

Meter Make YSI 556 Meter ID MPS-5

pH

Initial Calibration (IC)

Buffer Value	Manufacturer	Lot No.	Exp. Date	Meter Value	Temp (°C)	Time	Initials
4.0	ERA	010916	03/31/20	3.98	24.0	0815	DJA
7.0	ERA	100716	07/31/18	7.06	24.0	0815	DJA
10.0	ERA	230916	03/31/20	10.08	24.0	0815	DJA

IC Slope (%) NA (Pass) / Fail (Acceptable Slope: 92-102%)

Initial Calibration Verification (ICV)

Buffer Value	Manufacturer	Lot No.	Exp. Date	Meter Value	Temp (°C)	Time	Initials
7.0	Ricca	4607D88	07/31/18	7.07	24.0	0825	DJA

(Pass) / Fail (ICV acceptable if ± 0.1 s.u. of buffer value)

Continuing Calibration Verification (CCV)

See Below ☒ See Field Data Log Sheet ☐ See Raw Data (continuous pH) ☐

Buffer Value	Manufacturer	Lot No.	Exp. Date	Meter Value	Temp (°C)	Time	Initials
7.0	ERA	100716	07/31/18	7.07	25.0	1310	DJA

(Pass) / Fail (CCV acceptable if ± 0.1 s.u. of buffer value)

Conductivity

Initial Calibration (IC)

High Standard Value 998

Mfg. Fisher

Lot No. CC16243

Exp. Date 07/2018

Meter Result (µS/cm)	Temp (°C)
998	24.0

Initial Cal. Verification (ICV)

Low Standard Value 100

Mfg. Fisher

Lot No. CC16134

Exp. Date 06/2018

Meter Result (µS/cm)	Temp (°C)
99	24.0

Meter Make YSI 556 ID MPS-5

IC/ICV Time 0830

Initials DJA

ICV: (Pass) / Fail

(ICV acceptable if ± 5% of standard value or 10 µS/cm, which ever is greater)

Continuing Calibration Verification (CCV)

Time 1315 Initials DJA Std. Value 998 ☒ High Standard ☐ Low Standard

Result (µS/cm) 997 Temp (°C) 25.0 CCV: (Pass) / Fail (CCV acceptable if ± 5% of standard value or 10 µS/cm, which ever is greater)

Time DJA 6/4/18 Initials ____ Std. Value ____ ☐ High Standard ☐ Low Standard

Result (µS/cm) ____ Temp (°C) ____ CCV: Pass / Fail (CCV acceptable if ± 5% of standard value or 10 µS/cm, which ever is greater)

Time ____ Initials ____ Std. Value ____ ☐ High Standard ☐ Low Standard

Result (µS/cm) ____ Temp (°C) ____ CCV: Pass / Fail (CCV acceptable if ± 5% of standard value or 10 µS/cm, which ever is greater)

Form Revised: 11/13/2013

Lead Technician Signature: David Dunlap Date: 6/4/18

Pace Analytical® Field Services Division

Landmark Environ. - Kurt Mfg. Field proj.# 18-00696

pH and Conductivity

Field Calibration and Verification Sheet

Technician(s) DJA Date 6/5/18 Page 1 of 1

Meter Make YSI 556 Meter ID MPS-5

pH

Initial Calibration (IC)

Buffer Value	Manufacturer	Lot No	Exp. Date	Meter Value	Temp (°C)	Time	Initials
4.0	ERA	010916	03/31/20	3.98	24.0	0805	DJA
7.0	ERA	100716	07/31/18	7.07	24.0	0805	DJA
10.0	ERA	230916	03/31/20	10.11	24.0	0805	DJA

IC Slope (%) NA (Pass) / Fail (Acceptable Slope: 92-102%)

Initial Calibration Verification (ICV)

Buffer Value	Manufacturer	Lot No	Exp. Date	Meter Value	Temp (°C)	Time	Initials
7.0	Ricca	4607D88	07/31/18	7.08	24.0	0815	DJA

(Pass) / Fail (ICV acceptable if ± 0.1 s.u. of buffer value)

Continuing Calibration Verification (CCV)

See Below ☐ See Field Data Log Sheet ☐ See Raw Data (continuous pH) ☐

Buffer Value	Manufacturer	Lot No	Exp. Date	Meter Value	Temp (°C)	Time	Initials
7.0	ERA	100716	07/31/18	7.05	25.5	1335	DJA

(Pass) / Fail (CCV acceptable if ± 0.1 s.u. of buffer value)

Conductivity

Initial Calibration (IC)

High Standard Value 998

Mfg. Fisher

Lot No. CC16243

Exp. Date 07/2018

Meter Result (µS/cm)	Temp (°C)
999	24.0

Initial Cal. Verification (ICV)

Low Standard Value 100

Mfg. Fisher

Lot No. CC16134

Exp. Date 06/2018

Meter Result (µS/cm)	Temp (°C)
98	24.0

Meter Make YSI 556 ID MPS-5

IC/ICV Time 0820

Initials DJA

ICV: (Pass) / Fail

(ICV acceptable if ± 5% of standard value or 10 µS/cm, which ever is greater)

Continuing Calibration Verification (CCV)

Time 1340 Initials DJA Std. Value 998 ☒ High Standard ☐ Low Standard

Result (µS/cm) 998 Temp (°C) 25.5 CCV: (Pass) / Fail (CCV acceptable if ± 5% of standard value or 10 µS/cm, which ever is greater)

Time DJA 6/5/18 Initials ____ Std. Value ____ ☐ High Standard ☐ Low Standard

Result (µS/cm) ____ Temp (°C) ____ CCV: Pass / Fail (CCV acceptable if ± 5% of standard value or 10 µS/cm, which ever is greater)

Time ____ Initials ____ Std. Value ____ ☐ High Standard ☐ Low Standard

Result (µS/cm) ____ Temp (°C) ____ CCV: Pass / Fail (CCV acceptable if ± 5% of standard value or 10 µS/cm, which ever is greater)

Form Revised: 11/13/2013

Lead Technician Signature: David Anders Date: 6/5/18

Pace Analytical® Field Services Division

Well Sampling Field Data Log Sheet

Well Description and Presampling Information

Client Landmark Environ. Project Kurt Mfg. 1H 2018 Project No. 18-00696

Monitoring Point ID Deep production well Labeled No

Inside Diameter 8 (inches) Key # A-112 ☒ Locked ☐ Not Locked

Casing Material: ☐ PVC ☒ Steel ☐ Stainless Steel

Depth Measurement and Elevations (from top of well casing)

Top of Casing Elevation NA Feet

Total Well Depth 350.00 Feet (estimate)

Static water level measurement before purging (Start Depth) 29.24 Feet

Static water level measurement at time of sampling (Final Depth) 29.24 Feet

Static Water Level Elevation Before Purging NA Feet

Purge Method Grundfas rediflo 2 @ 225' Pump ID SP-1

Date Purged ~~0935~~ 6/4/18 Water Column 320.76 Feet

Time Purged 0935 - 0950 One Casing Volume 837 Gallons

Pump Rate 0.5 GPM (LPM) Volume Purged 7.5 ~~Gallons~~ Liters

Field Sampling Data

Date Sampled 6/4/18

Time Sampled 0955

Sampling Equip. above pump

Meter ID MPS-5

Analyzed by DJA

Field Parameter Measurements of Sample

pH 6.9 (units) D.O NA (mg/l)

Spec. Cond. 530 (µmhos/cm) Turbidity NA (NTU)

Temp. 14.0 (°C) Eh NA (mV)

Other NA

Field Measurements Temp. Corrected: ☒ Yes ☐ No ☐ NA

Sample for Soluble Metals Filtered in Field: ☐ Yes ☐ No ☒ NA

Weather Conditions During Sampling: 70° + sunny, wind W 5

Sample Description: clear + odorless

Observations: Purged and sampled using Low-Flow sampling method @ 0.5 Liters/minute.

Stabilization Test

Time	pH (units)	Specific Conductance (µmhos/cm)	Temp (°C)	D.O (mg/l)	Turbidity (NTU)	Eh (mV)	Volume Purged (cumulative gal)
0940	7.0	520	13.5	NA	NA	NA	2.5 L
0945	7.0	530	13.5	NA	NA	NA	5.0 L
0950	6.9	530	14.0	NA	NA	NA	7.5 L
			DJA	6/4/18			

Samples chilled immediately after collection ☒ Yes ☐ Other

Form Revised: 01/25/2018

Name/Affiliation of Sampler(s): David Anderson / Pace Analytical

Lead Technician Signature: David Anderson Date: 6/4/18

Pace Analytical® Field Services Division

Well Sampling Field Data Log Sheet

Well Description and Presampling Information

Client Landmark Environ. Project Kurt Mfg. / H2018 Project No. 18-00696

Monitoring Point ID PC-1 Labeled PC-1

Inside Diameter _____ (inches) Key # A-112 ☒ Locked ☐ Not Locked

Casing Material: ☐ PVC ☒ Steel ☐ Stainless Steel

Depth Measurement and Elevations (from top of well casing)

Top of Casing Elevation NA Feet

Total Well Depth 160.66 Feet

Static water level measurement before purging (Start Depth) 30.82 Feet

Static water level measurement at time of sampling (Final Depth) NA Feet

Static Water Level Elevation Before Purging NA Feet

Purge Method _____ Pump ID _____

Date Purged ~~DTA~~ 6/4/18 Water Column _____ Feet

Time Purged _____ One Casing Volume _____ Gallons

Pump Rate _____ GPM / LPM Volume Purged _____ Gallons

Field Sampling Data

Date Sampled 6/4/18

Time Sampled 1135

Sampling Equip. water level meter

Meter ID NA

Analyzed by DTA

Field Parameter Measurements of Sample

pH _____ (units) D.O _____ (mg/l)

Spec. Cond. _____ (µmhos/cm) Turbidity _____ (NTU)

Temp. _____ (°C) ~~DTA~~ 6/4/18 Eh _____ (mV)

Other _____

Field Measurements Temp. Corrected: ☐ Yes ☐ No ☒ NA

Sample for Soluble Metals Filtered in Field: ☐ Yes ☐ No ☒ NA

Weather Conditions During Sampling: 72° + sunny, wind W-5

Sample Description: NA

Observations: water level only measured 6/4/18

Stabilization Test

Time	pH (units)	Specific Conductance (µmhos/cm)	Temp (°C)	D.O (mg/l)	Turbidity (NTU)	Eh (mV)	Volume Purged (cumulative gal)
			~~DTA~~ 6/4/18				

Samples chilled immediately after collection: ☐ Yes ☒ ~~Other~~ NA, water level only

Form Revised: 01/25/2018

Name/Affiliation of Sampler(s): David Anderson / Pace Analytical

Lead Technician Signature: David Anderson Date: 6/4/18

Pace Analytical® Field Services Division

Well Sampling Field Data Log Sheet

Well Description and Presampling Information

Client Landmark Environ. Project Kurt Mfg. 1H 2018 Project No. 18-00696

Monitoring Point ID PC-2 Labeled PC-2

Inside Diameter 4 (inches) Key # A-112 ☒ Locked ☐ Not Locked

Casing Material: ☐ PVC ☒ Steel ☐ Stainless Steel

Depth Measurement and Elevations (from top of well casing)

Top of Casing Elevation NA Feet

Total Well Depth 157.88 Feet

Static water level measurement before purging (Start Depth) 28.80 Feet

Static water level measurement at time of sampling (Final Depth) 28.80 Feet

Static Water Level Elevation Before Purging NA Feet

Purge Method Grundfos rediflo 2 @ 153' Pump ID SP-1

Date Purged 6/4/18 Water Column 129.08 Feet

Time Purged 1035-1050 One Casing Volume 84.3 Gallons

Pump Rate 0.5 GPM (LPM) Volume Purged 7.5 ~~Gallons~~ Liters

Field Sampling Data

Date Sampled 6/4/18

Time Sampled 1055

Sampling Equip. above pump

Meter ID MPS-5

Analyzed by DJA

Field Parameter Measurements of Sample

pH 7.3 (units) D.O NA (mg/l)

Spec. Cond. 960 (µmhos/cm) Turbidity NA (NTU)

Temp. 14.5 (°C) Eh NA (mV)

Other NA

Field Measurements Temp. Corrected: ☒ Yes ☐ No ☐ NA

Sample for Soluble Metals Filtered in Field: ☐ Yes ☐ No ☒ NA

Weather Conditions During Sampling: 71° + sunny, wind W 5

Sample Description: brown color + odorless

Observations: purged and sampled using Low-Flow sampling method @ 0.5 Liters/minute.

Stabilization Test

Time	pH (units)	Specific Conductance (µmhos/cm)	Temp (°C)	D.O (mg/l)	Turbidity (NTU)	Eh (mV)	Volume Purged (cumulative gal)
1040	7.2	960	14.0	NA	NA	NA	2.5 L
1045	7.3	960	14.0	NA	NA	NA	5.0 L
1050	7.3	960	14.5	NA	NA	NA	7.5 L
			DJA	6/4/18			

Samples chilled immediately after collection ☒ Yes ☐ Other

Form Revised: 01/25/2018

Name/Affiliation of Sampler(s): David Anderson / Pace Analytical

Lead Technician Signature: David Anderson Date: 6/4/18

Pace Analytical® Field Services Division

Well Sampling Field Data Log Sheet

Well Description and Presampling Information

Client Landmark Environ. Project Kurt Mfg. IH 2018 Project No. 18-00696

Monitoring Point ID Recovery Well C Labeled Well C

Inside Diameter 8 (inches) Key # A-112 ☒ Locked ☐ Not Locked

Casing Material: ☐ PVC ☒ Steel ☐ Stainless Steel

Depth Measurement and Elevations (from top of well casing)

Top of Casing Elevation NA Feet

Total Well Depth 62.30 Feet

Static water level measurement before purging (Start Depth) 38.25 Feet

Static water level measurement at time of sampling (Final Depth) 38.25 Feet

Static Water Level Elevation Before Purging NA Feet

Purge Method ~~Grundfos Redi-flo 2~~ Pump ID ~~SP-1~~

Date Purged DJA 6/5/18 Water Column 24.05 Feet

Time Purged One Casing Volume 62.8 Gallons

Pump Rate GPM (LPM) Volume Purged ~~Gallons~~ Liters

Field Sampling Data

Date Sampled 6/5/18

Time Sampled 1245

Sampling Equip. ~~disposable bailer~~ above pump

Meter ID MPS-5

Analyzed by DJA

Field Parameter Measurements of Sample

pH 7.5 (units) D.O NA (mg/l)

Spec. Cond. 830 (µmhos/cm) Turbidity NA (NTU)

Temp. 14.0 (°C) Eh NA (mV)

Other NA

Field Measurements Temp. Corrected: ☒ Yes ☐ No ☐ NA

Sample for Soluble Metals Filtered in Field: ☐ Yes ☐ No ☒ NA

Weather Conditions During Sampling: 73° + sunny, wind E 10

Sample Description: clear + odorless

Observations: Recovery Well C is constantly pumping w/ electrical wiring going down well. Grabbed sample with disposable bailer.

Stabilization Test

Time	pH (units)	Specific Conductance (µmhos/cm)	Temp (°C)	D.O (mg/l)	Turbidity (NTU)	Eh (mV)	Volume Purged (cumulative gal)
				NA	NA	NA	
		DJA 6/5/18		NA	NA	NA	
				NA	NA	NA	

Samples chilled immediately after collection: ☒ Yes ☐ Other

Form Revised: 01/25/2018

Name/Affiliation of Sampler(s): David Anderson / Pace Analytical

Lead Technician Signature: David Anderson Date: 6/5/18

Pace Analytical® Field Services Division

Well Sampling Field Data Log Sheet

Client Landmark Environ. **Project** Kurt Mfg. 1H2018 **Project No.** 18-00696

Well Description and Presampling Information

Monitoring Point ID Well B Labeled Well B

Inside Diameter 6 (inches) Key # A-112 ☒ Locked ☐ Not Locked

Casing Material: ☐ PVC ☒ Steel ☐ Stainless Steel

Depth Measurement and Elevations (from top of well casing)

Top of Casing Elevation NA Feet

Total Well Depth 100.00 Feet

Static water level measurement before purging (Start Depth) 26.95 Feet

Static water level measurement at time of sampling (Final Depth) NA Feet

Static Water Level Elevation Before Purging NA Feet

Purge Method _____ Pump ID _____

Date Purged ~~DTA~~ 6/4/18 Water Column _____ Feet

Time Purged _____ One Casing Volume _____ Gallons

Pump Rate _____ GPM / LPM Volume Purged _____ Gallons

Field Sampling Data

Date Sampled 6/4/18

Time Sampled 1250

Sampling Equip. water level meter

Meter ID NA

Analyzed by DTA

Field Parameter Measurements of Sample

pH _____ (units) D.O _____ (mg/l)

Spec. Cond. _____ (µmhos/cm) Turbidity _____ (NTU)

Temp. _____ (°C) DTA 6/4/18 Eh _____ (mV)

Other _____

Field Measurements Temp. Corrected: ☐ Yes ☐ No ☒ NA

Sample for Soluble Metals Filtered in Field: ☐ Yes ☐ No ☒ NA

Weather Conditions During Sampling: 74° + sunny, wind W10

Sample Description: NA

Observations: Water level only measured 6/4/18.

Stabilization Test

Time	pH (units)	Specific Conductance (µmhos/cm)	Temp (°C)	D.O (mg/l)	Turbidity (NTU)	Eh (mV)	Volume Purged (cumulative gal)
			DTA 6/4/18				

Samples chilled immediately after collection: ☐ Yes ☒ Other NA, water level only

Form Revised: 01/25/2018

Name/Affiliation of Sampler(s): David Anderson / Pace Analytical

Lead Technician Signature: David Anderson Date: 6/4/18

Pace Analytical® Field Services Division

Well Sampling Field Data Log Sheet

Well Description and Presampling Information

Client Landmark Environ. Project Kurt Mfg. / H2018 Project No. 18-00696

Monitoring Point ID MW-1 Labeled MW-1

Inside Diameter 2 (inches) Key # A-112 ☒ Locked ☐ Not Locked

Casing Material: ☐ PVC ☒ Steel ☐ Stainless Steel

Depth Measurement and Elevations (from top of well casing)

Top of Casing Elevation NA Feet

Total Well Depth 47.91 Feet

Static water level measurement before purging (Start Depth) 28.90 Feet

Static water level measurement at time of sampling (Final Depth) NA Feet

Static Water Level Elevation Before Purging NA Feet

Purge Method ~~DTA 6/4/18~~ Pump ID

Date Purged Water Column Feet

Time Purged One Casing Volume Gallons

Pump Rate GPM / LPM Volume Purged Gallons

Field Sampling Data

Date Sampled 6/4/18

Time Sampled 1210

Sampling Equip. water level meter

Meter ID NA

Analyzed by DTA

Field Parameter Measurements of Sample

pH (units) D.O (mg/l)

Spec. Cond. (µmhos/cm) Turbidity (NTU)

Temp. (°C) ~~DTA 6/4/18~~ Eh (mV)

Other

Field Measurements Temp. Corrected: ☐ Yes ☐ No ☒ NA

Sample for Soluble Metals Filtered in Field: ☐ Yes ☐ No ☒ NA

Weather Conditions During Sampling: 73°+ sunny, wind W 5

Sample Description: NA

Observations: water level only measured 6/4/18

Stabilization Test

Time	pH (units)	Specific Conductance (µmhos/cm)	Temp °C	D.O (mg/l)	Turbidity (NTU)	Eh (mV)	Volume Purged (cumulative gal)
			~~DTA 6/4/18~~				

Samples chilled immediately after collection ☐ Yes ☒ ~~Other~~ NA, water level only

Form Revised: 01/25/2018

Name/Affiliation of Sampler(s): David Anderson / Pace Analytical

Lead Technician Signature: David Anderson Date: 6/4/18

Pace Analytical® Field Services Division

Well Sampling Field Data Log Sheet

Well Description and Presampling Information

Client Landmark Environ. Project Kurt Mfg. 1H2018 Project No. 18-00696

Monitoring Point ID MW-2 Labeled MW-2

Inside Diameter 2 (inches) Key # A-112 ☒ Locked ☐ Not Locked

Casing Material: ☐ PVC ☒ Steel ☐ Stainless Steel

Depth Measurement and Elevations (from top of well casing)

Top of Casing Elevation NA Feet

Total Well Depth 46.30 Feet

Static water level measurement before purging (Start Depth) 28.86 Feet

Static water level measurement at time of sampling (Final Depth) NA Feet

Static Water Level Elevation Before Purging NA Feet

Purge Method _____ Pump ID _____

Date Purged DTA 6/4/18 Water Column _____ Feet

Time Purged _____ One Casing Volume _____ Gallons

Pump Rate _____ GPM / LPM Volume Purged _____ Gallons

Field Sampling Data

Date Sampled 6/4/18

Time Sampled 1240

Sampling Equip. water level meter

Meter ID NA

Analyzed by DTA

Field Parameter Measurements of Sample

pH _____ (units) D.O _____ (mg/l)

Spec. Cond. _____ (umhos/cm) Turbidity _____ (NTU)

Temp. _____ (°C) DTA 6/4/18 Eh _____ (mV)

Other _____

Field Measurements Temp. Corrected: ☐ Yes ☐ No ☒ NA

Sample for Soluble Metals Filtered in Field: ☐ Yes ☐ No ☒ NA

Weather Conditions During Sampling: 73°+ sunny, wind W 10

Sample Description: NA

Observations: water level only measured 6/4/18

Stabilization Test

Time	pH (units)	Specific Conductance (umhos/cm)	Temp (°C)	D.O (mg/l)	Turbidity (NTU)	Eh (mV)	Volume Purged (cumulative gal)
			DTA 6/4/18				

Samples chilled immediately after collection: ☐ Yes ☒ Other NA, water level only

Form Revised: 01/25/2018

Name/Affiliation of Sampler(s): David Anderson / Pace Analytical

Lead Technician Signature: David Anderson Date: 6/4/18

Pace Analytical® Field Services Division

Well Sampling Field Data Log Sheet

Well Description and Presampling Information

Client Landmark Environ. Project Kurt Mfg. IH 2018 Project No. 18-00696

Monitoring Point ID MW-3 Labeled No

Inside Diameter 2 (inches) Key # A-112 ☒ Locked ☐ Not Locked

Casing Material: ☐ PVC ☒ Steel ☐ Stainless Steel Flush mount well. *

Depth Measurement and Elevations (from top of well casing)

Top of Casing Elevation NA Feet

Total Well Depth 34.20 Feet

Static water level measurement before purging (Start Depth) 3.07 Feet

Static water level measurement at time of sampling (Final Depth) 14.25 Feet

Static Water Level Elevation Before Purging NA Feet

Purge Method Grundfos rediflo 2 Pump ID SP-1

Date Purged 6/5/18 Water Column 31.13 Feet

Time Purged 1131 - 1140 One Casing Volume 5.1 Gallons

Pump Rate 0.5 GPM (LPM) Volume Purged 4.5 ~~Gallons~~ Liters

Field Sampling Data

Date Sampled 6/5/18

Time Sampled 1145

Sampling Equip. above pump

Meter ID MPS-5

Analyzed by DJA

Field Parameter Measurements of Sample

pH 9.3 (units) D.O NA (mg/l)

Spec. Cond. 850 (µmhos/cm) Turbidity NA (NTU)

Temp. 16.0 (°C) Eh NA (mV)

Other NA

Field Measurements Temp. Corrected: ☒ Yes ☐ No ☐ NA

Sample for Soluble Metals Filtered in Field: ☐ Yes ☐ No ☒ NA

Weather Conditions During Sampling: 72° + sunny, wind E10

Sample Description: clear + odorless

Observations: * Needs new well cover and lock.

Stabilization Test

Time	pH (units)	Specific Conductance (µmhos/cm)	Temp (°C)	D.O (mg/l)	Turbidity (NTU)	Eh (mV)	Volume Purged (cumulative gal)
1134	9.2	840	15.5	NA	NA	NA	1.5 L
1137	9.3	850	16.0	NA	NA	NA	3.0 L
1140	9.3	850	16.0	NA	NA	NA	4.5 L
			DJA	6/5/18			

Samples chilled immediately after collection: ☒ Yes ☐ Other

Form Revised: 01/25/2018

Name/Affiliation of Sampler(s): David Anderson / Pace Analytical

Lead Technician Signature: David Anderson Date: 6/5/18

Pace Analytical® Field Services Division

Well Sampling Field Data Log Sheet

Well Description and Presampling Information

Client Landmark Environ. Project Kurt Mfg. IH 2018 Project No. 18-00696

Monitoring Point ID MW-4 Labeled MW-4

Inside Diameter 2 (inches) Key # A-112 ☒ Locked ☐ Not Locked

Casing Material: ☒ PVC ☐ Steel ☐ Stainless Steel

Depth Measurement and Elevations (from top of well casing)

Top of Casing Elevation NA Feet

Total Well Depth 40.70 Feet

Static water level measurement before purging (Start Depth) 23.15 Feet

Static water level measurement at time of sampling (Final Depth) NA Feet

Static Water Level Elevation Before Purging NA Feet

Purge Method _____ Pump ID _____

Date Purged DJA 6/4/18 Water Column _____ Feet

Time Purged _____ One Casing Volume _____ Gallons

Pump Rate _____ GPM / LPM Volume Purged _____ Gallons

Field Sampling Data

Date Sampled 6/4/18

Time Sampled 1220

Sampling Equip. water level meter

Meter ID NA

Analyzed by DJA

Field Parameter Measurements of Sample

pH _____ (units) D.O _____ (mg/l)

Spec. Cond. _____ (µmhos/cm) Turbidity _____ (NTU)

Temp. _____ (°C) DJA 6/4/18 Eh _____ (mV)

Other _____

Field Measurements Temp. Corrected: ☐ Yes ☐ No ☒ NA

Sample for Soluble Metals Filtered in Field: ☐ Yes ☐ No ☒ NA

Weather Conditions During Sampling: 73°+ sunny, wind W 5

Sample Description: NA

Observations: water level only measured 6/4/18

Stabilization Test

Time	pH (units)	Specific Conductance (µmhos/cm)	Temp (°C)	D.O (mg/l)	Turbidity (NTU)	Eh (mV)	Volume Purged (cumulative gal)
			DJA 6/4/18				

Samples chilled immediately after collection: ☐ Yes ☒ Other NA, water level only

Form Revised: 01/25/2018

Name/Affiliation of Sampler(s): David Anderson / Pace Analytical

Lead Technician Signature: David Anderson Date: 6/4/18

Pace Analytical® Field Services Division

Well Sampling Field Data Log Sheet

Well Description and Presampling Information

Client Landmark Environ. Project Kurt Mfg. 1H2018 Project No. 18-00696

Monitoring Point ID MW-5 Labeled MW-5

Inside Diameter 2 (inches) Key # A-112 ☒ Locked ☐ Not Locked

Casing Material: ☒ PVC ☐ Steel ☐ Stainless Steel

Depth Measurement and Elevations (from top of well casing)

Top of Casing Elevation NA Feet

Total Well Depth 50.54 Feet

Static water level measurement before purging (Start Depth) 23.89 Feet

Static water level measurement at time of sampling (Final Depth) NA Feet

Static Water Level Elevation Before Purging NA Feet

Purge Method _____ Pump ID _____

Date Purged ~~NA~~ DJA 6/4/18 Water Column _____ Feet

Time Purged _____ One Casing Volume _____ Gallons

Pump Rate _____ GPM / LPM Volume Purged _____ Gallons

Field Sampling Data

Date Sampled 6/4/18

Time Sampled 1235

Sampling Equip. water level meter

Meter ID NA

Analyzed by DJA

Field Parameter Measurements of Sample

pH _____ (units) D.O _____ (mg/l)

Spec. Cond. _____ (umhos/cm) Turbidity _____ (NTU)

Temp. _____ (°C) ~~NA~~ DJA 6/4/18 Eh _____ (mV)

Other _____

Field Measurements Temp. Corrected: ☐ Yes ☐ No ☒ NA

Sample for Soluble Metals Filtered in Field: ☐ Yes ☐ No ☒ NA

Weather Conditions During Sampling: 73° & sunny, wind W 5-10

Sample Description: NA

Observations: water level only measured 6/4/18

Stabilization Test

Time	pH (units)	Specific Conductance (umhos/cm)	Temp (°C)	D.O (mg/l)	Turbidity (NTU)	Eh (mV)	Volume Purged (cumulative gal)
			DJA 6/4/18				

Samples chilled immediately after collection: ☐ Yes ☒ ~~Other~~ NA, water level only

Form Revised: 01/25/2018

Name/Affiliation of Sampler(s): David Anderson / Pace Analytical

Lead Technician Signature: David Anderson Date: 6/4/18

Pace Analytical® Field Services Division

Well Sampling Field Data Log Sheet

Well Description and Presampling Information

Client Landmark Environ. Project Kurt Mfg. 1H 2018 Project No. 18-00696

Monitoring Point ID MW-6 Labeled MW-6

Inside Diameter 2 (inches) Key # A-112 ☒ Locked ☐ Not Locked

Casing Material: ☒ PVC ☐ Steel ☐ Stainless Steel

Depth Measurement and Elevations (from top of well casing)

Top of Casing Elevation NA Feet

Total Well Depth 48.80 Feet

Static water level measurement before purging (Start Depth) 31.41 Feet

Static water level measurement at time of sampling (Final Depth) 31.44 Feet

Static Water Level Elevation Before Purging NA Feet

Purge Method Grundfos rediflo 2 Pump ID SP-1

Date Purged 6-5-18 Water Column 17.39 Feet

Time Purged 1310 - 1319 One Casing Volume 2.8 Gallons

Pump Rate 0.5 GPM (LPM) Volume Purged 4.5 ~~Gallons~~ Liters

Field Sampling Data

Date Sampled 6-5-18

Time Sampled 1325

Sampling Equip. above pump

Meter ID MPS-5

Analyzed by DJA

Field Parameter Measurements of Sample

pH 7.3 (units) D.O NA (mg/l)

Spec. Cond. 680 (µmhos/cm) Turbidity NA (NTU)

Temp. 13.0 (°C) Eh NA (mV)

Other NA

Field Measurements Temp. Corrected: ☒ Yes ☐ No ☐ NA

Sample for Soluble Metals Filtered in Field: ☐ Yes ☐ No ☒ NA

Weather Conditions During Sampling: 74° + sunny, wind E 10

Sample Description: clear + odorless

Observations: DJA 6/5/18

Stabilization Test

Time	pH (units)	Specific Conductance (µmhos/cm)	Temp (°C)	D.O (mg/l)	Turbidity (NTU)	Eh (mV)	Volume Purged (cumulative gal)
1313	7.4	680	13.0	NA	NA	NA	1.5 L
1316	7.3	680	13.0	NA	NA	NA	3.0 L
1319	7.3	680	13.0	NA	NA	NA	4.5 L
			DJA	6/5/18			

Samples chilled immediately after collection: ☒ Yes ☐ Other

Form Revised: 01/25/2018

Name/Affiliation of Sampler(s): David Anderson / Pace Analytical

Lead Technician Signature: David Anderson Date: 6/5/18

Pace Analytical® Field Services Division

Well Sampling Field Data Log Sheet

Well Description and Presampling Information

Client Landmark Environ. Project Kurt Mfg. 1H2018 Project No. 18-00696

Monitoring Point ID MW-7 Labeled No

Inside Diameter 2 (inches) Key # A-112 ☐ Locked ☐ Not Locked

Casing Material: ☐ PVC ☒ Steel ☐ Stainless Steel

Depth Measurement and Elevations (from top of well casing)

Top of Casing Elevation NA Feet

Total Well Depth 78.38 Feet

Static water level measurement before purging (Start Depth) 23.64 Feet

Static water level measurement at time of sampling (Final Depth) NA Feet

Static Water Level Elevation Before Purging NA Feet

Purge Method _____ Pump ID _____

Date Purged DTA 6/4/18 Water Column _____ Feet

Time Purged _____ One Casing Volume _____ Gallons

Pump Rate _____ GPM / LPM Volume Purged _____ Gallons

Field Sampling Data

Date Sampled 6/4/18

Time Sampled 1300

Sampling Equip. water level meter

Meter ID NA

Analyzed by DTA

Field Parameter Measurements of Sample

pH _____ (units) D.O _____ (mg/l)

Spec. Cond. _____ (µmhos/cm) Turbidity _____ (NTU)

Temp. _____ (°C) DTA 6/4/18 Eh _____ (mV)

Other _____

Field Measurements Temp. Corrected: ☐ Yes ☐ No ☒ NA

Sample for Soluble Metals Filtered in Field: ☐ Yes ☐ No ☒ NA

Weather Conditions During Sampling: 74° + sunny, wind W10

Sample Description: NA

Observations: Water level only measured 6/4/18.

Stabilization Test

Time	pH (units)	Specific Conductance (µmhos/cm)	Temp (°C)	D.O (mg/l)	Turbidity (NTU)	Eh (mV)	Volume Purged (cumulative gal)
			DTA 6/4/18				

Samples chilled immediately after collection: ☐ Yes ☒ Other NA, water level only

Form Revised: 01/25/2018

Name/Affiliation of Sampler(s): David Anderson / Pace Analytical

Lead Technician Signature: David Anderson Date: 6/4/18

Pace Analytical® Field Services Division

Well Sampling Field Data Log Sheet

Client Landmark Environ. **Project** Kurt Mfg. IH 2018 **Project No.** 18-00696

Well Description and Presampling Information

Monitoring Point ID MW-8 Labeled MW-8

Inside Diameter 2 (inches) Key # A-112 ☒ Locked ☐ Not Locked

Casing Material: ☒ PVC ☐ Steel ☐ Stainless Steel

Depth Measurement and Elevations (from top of well casing)

Top of Casing Elevation NA Feet

Total Well Depth 82.69 Feet

Static water level measurement before purging (Start Depth) 29.03 Feet

Static water level measurement at time of sampling (Final Depth) 33.96 Feet

Static Water Level Elevation Before Purging NA Feet

Purge Method Grundfos rediflo 2 Pump ID SP-1

Date Purged 6/5/18 Water Column 53.66 Feet

Time Purged 1100 - 1109 One Casing Volume 8.7 Gallons

Pump Rate 0.5 GPM (LPM) Volume Purged 4.5 ~~Gallons~~ Liters

Field Sampling Data

Date Sampled 6/5/18

Time Sampled 1115

Sampling Equip. above pump

Meter ID MPS-5

Analyzed by DJA

Field Parameter Measurements of Sample

pH 7.6 (units) D.O NA (mg/l)

Spec. Cond. 1590 (µmhos/cm) Turbidity NA (NTU)

Temp. 14.5 (°C) Eh NA (mV)

Other NA

Field Measurements Temp. Corrected: ☒ Yes ☐ No ☐ NA

Sample for Soluble Metals Filtered in Field: ☐ Yes ☐ No ☒ NA

Weather Conditions During Sampling: 70° + sunny, wind E 5-10

Sample Description: clear + odorless

Observations: DJA 6/5/18

Stabilization Test

Time	pH (units)	Specific Conductance (µmhos/cm)	Temp (°C)	D.O (mg/l)	Turbidity (NTU)	Eh (mV)	Volume Purged (cumulative gal)
1103	7.6	1540	14.0	NA	NA	NA	1.5 L
1106	7.6	1580	14.0	NA	NA	NA	3.0 L
1109	7.6	1590	14.5	NA	NA	NA	4.5 L

DJA 6/5/18

Samples chilled immediately after collection: ☒ Yes ☐ Other

Form Revised: 01/25/2018

Name/Affiliation of Sampler(s): David Anderson / Pace Analytical

Lead Technician Signature: David Anderson Date: 6/5/18

Pace Analytical® Field Services Division

Well Sampling Field Data Log Sheet

Well Description and Presampling Information

Client Landmark Environ. Project Kurt Mfg. 1H2018 Project No. 18-00696

Monitoring Point ID MW-9 Labeled MW-9

Inside Diameter 2 (inches) Key # A-112 ☒ Locked ☐ Not Locked

Casing Material: ☒ PVC ☐ Steel ☐ Stainless Steel

Depth Measurement and Elevations (from top of well casing)

Top of Casing Elevation NA Feet

Total Well Depth 75.73 Feet

Static water level measurement before purging (Start Depth) 24.11 Feet

Static water level measurement at time of sampling (Final Depth) NA Feet

Static Water Level Elevation Before Purging NA Feet

Purge Method _____ Pump ID _____

Date Purged ~~DJA~~ 6/4/18 Water Column _____ Feet

Time Purged _____ One Casing Volume _____ Gallons

Pump Rate _____ GPM / LPM Volume Purged _____ Gallons

Field Sampling Data

Date Sampled 6/4/18

Time Sampled 1230

Sampling Equip. water level meter

Meter ID NA

Analyzed by DJA

Field Parameter Measurements of Sample

pH _____ (units) D.O _____ (mg/l)

Spec. Cond. _____ (µmhos/cm) Turbidity _____ (NTU)

Temp. _____ (°C) ~~DJA~~ 6/4/18 Eh _____ (mV)

Other _____

Field Measurements Temp. Corrected: ☐ Yes ☐ No ☒ NA

Sample for Soluble Metals Filtered in Field: ☐ Yes ☐ No ☒ NA

Weather Conditions During Sampling: 73° + sunny, wind W 5-10

Sample Description: NA

Observations: Water level only measured 6/4/18

Stabilization Test

Time	pH (units)	Specific Conductance (µmhos/cm)	Temp °C	D.O (mg/l)	Turbidity (NTU)	Eh (mV)	Volume Purged (cumulative gal)

~~DJA~~ 6/4/18

Samples chilled immediately after collection ☐ Yes ☒ ~~Other~~ NA, water level only

Form Revised: 01/25/2018

Name/Affiliation of Sampler(s): David Anderson / Pace Analytical

Lead Technician Signature: David Anderson Date: 6/4/18

Pace Analytical® Field Services Division

Well Sampling Field Data Log Sheet

Client Landmark Environ. **Project** Kurt Mfg. / H2018 **Project No.** 18-00696

Well Description and Presampling Information

Monitoring Point ID MW-10 Labeled MW-10

Inside Diameter _____ (inches) Key # A-112 ☒ Locked ☐ Not Locked

Casing Material: ☒ PVC ☐ Steel ☐ Stainless Steel

Depth Measurement and Elevations (from top of well casing)

Top of Casing Elevation NA Feet

Total Well Depth 44.79 Feet

Static water level measurement before purging (Start Depth) 32.04 Feet

Static water level measurement at time of sampling (Final Depth) NA Feet

Static Water Level Elevation Before Purging NA Feet

Purge Method _____ Pump ID _____

Date Purged ~~NA~~ DJA 6/4/18 Water Column _____ Feet

Time Purged _____ One Casing Volume _____ Gallons

Pump Rate _____ GPM / LPM Volume Purged _____ Gallons

Field Sampling Data

Date Sampled 6/4/18

Time Sampled 1125

Sampling Equip. water level meter

Meter ID NA

Analyzed by DJA

Field Parameter Measurements of Sample

pH _____ (units) D.O _____ (mg/l)

Spec. Cond. _____ (µmhos/cm) Turbidity _____ (NTU)

Temp. _____ (°C) DJA 6/4/18 Eh _____ (mV)

Other _____

Field Measurements Temp. Corrected: ☐ Yes ☐ No ☒ NA

Sample for Soluble Metals Filtered in Field: ☐ Yes ☐ No ☒ NA

Weather Conditions During Sampling: 72°+ sunny, wind W5

Sample Description: NA

Observations: Water level only measured 6/4/18

Stabilization Test

Time	pH (units)	Specific Conductance (µmhos/cm)	Temp (°C)	D.O (mg/l)	Turbidity (NTU)	Eh (mV)	Volume Purged (cumulative gal)
			DJA 6/4/18				

Samples chilled immediately after collection: ☐ Yes ☒ Other NA, water level only

Form Revised: 01/25/2018

Name/Affiliation of Sampler(s): David Anderson / Pace Analytical

Lead Technician Signature: David Anderson Date: 6/4/18

Pace Analytical® Field Services Division

Well Sampling Field Data Log Sheet

Well Description and Presampling Information

Client Landmark Environ. Project Kurt Mfg. 1H 2018 Project No. 18-00696

Monitoring Point ID MW-12 Labeled MW-12

Inside Diameter 2 (inches) Key # A-112 ☒ Locked ☐ Not Locked

Casing Material: ☐ PVC ☒ Steel ☐ Stainless Steel

Depth Measurement and Elevations (from top of well casing)

Top of Casing Elevation NA Feet

Total Well Depth 52.50 Feet

Static water level measurement before purging (Start Depth) 30.84 Feet

Static water level measurement at time of sampling (Final Depth) 30.86 Feet

Static Water Level Elevation Before Purging NA Feet

Purge Method Grundfas rediflo 2 Pump ID SP-1

Date Purged 6/5/18 Water Column 21.66 Feet

Time Purged 0915-0924 One Casing Volume 3.5 Gallons

Pump Rate 0.5 GPM (LPM) Volume Purged 4.5 ~~Gallons~~ Liters

Field Sampling Data

Date Sampled 6/5/18

Time Sampled 0930

Sampling Equip. above pump

Meter ID MPS-5

Analyzed by DJA

Field Parameter Measurements of Sample

pH 7.0 (units) D.O NA (mg/l)

Spec. Cond. 760 (µmhos/cm) Turbidity NA (NTU)

Temp. 14.3 (°C) Eh NA (mV)

Other NA

Field Measurements Temp. Corrected: ☒ Yes ☐ No ☐ NA

Sample for Soluble Metals Filtered in Field: ☐ Yes ☐ No ☒ NA

Weather Conditions During Sampling: 65° & sunny, wind E 5

Sample Description: light brown color & odorless

Observations:

DJA 6/5/18

Stabilization Test

Time	pH (units)	Specific Conductance (µmhos/cm)	Temp (°C)	D.O (mg/l)	Turbidity (NTU)	Eh (mV)	Volume Purged (Cumulative gal)
0918	6.9	770	14.5	NA	NA	NA	1.5 L
0921	7.0	760	14.5	NA	NA	NA	3.0 L
0924	7.0	760	14.5	NA	NA	NA	4.5 L

DJA 6/5/18

Samples chilled immediately after collection ☒ Yes ☐ Other

Form Revised: 01/25/2018

Name/Affiliation of Sampler(s): David Anderson / Pace Analytical

Lead Technician Signature: David Anderson Date: 6/5/18

Pace Analytical® Field Services Division

Well Sampling Field Data Log Sheet

Well Description and Presampling Information

Client Landmark Environ. Project Kurt Mfg. 1 H2018 Project No. 18-00696

Monitoring Point ID MW-13 Labeled 76617

Inside Diameter 2 (inches) Key # A-112 ☒ Locked ☐ Not Locked

Casing Material: ☐ PVC ☒ Steel ☐ Stainless Steel Flush mount

Depth Measurement and Elevations (from top of well casing)

Top of Casing Elevation ~~NA~~ 850.24 Feet

Total Well Depth 53.19 Feet

Static water level measurement before purging (Start Depth) 29.11 Feet

Static water level measurement at time of sampling (Final Depth) NA Feet

Static Water Level Elevation Before Purging ~~NA~~ 821.13 Feet

Purge Method _____ Pump ID _____

Date Purged ~~DJA 6/4/18~~ Water Column _____ Feet

Time Purged _____ One Casing Volume _____ Gallons

Pump Rate _____ GPM / LPM Volume Purged _____ Gallons

Field Sampling Data

Date Sampled 6/4/18

Time Sampled 1155

Sampling Equip. water level meter

Meter ID NA

Analyzed by DJA

Field Parameter Measurements of Sample

pH _____ (units) D.O _____ (mg/l)

Spec. Cond. _____ (µmhos/cm) Turbidity _____ (NTU)

Temp. _____ (°C) ~~DJA 6/4/18~~ Eh _____ (mV)

Other _____

Field Measurements Temp. Corrected: ☐ Yes ☐ No ☒ NA

Sample for Soluble Metals Filtered in Field: ☐ Yes ☐ No ☒ NA

Weather Conditions During Sampling: 72° + sunny, wind W5

Sample Description: NA

Observations: Water level only measured 6/4/18

Stabilization Test

Time	pH (units)	Specific Conductance (µmhos/cm)	Temp (°C)	D.O (mg/l)	Turbidity (NTU)	Eh (mV)	Volume Purged (cumulative gal)
			~~DJA 6/4/18~~				

Samples chilled immediately after collection: ☐ Yes ☒ ~~Other~~ NA, water level only

Form Revised: 01/25/2018

Name/Affiliation of Sampler(s): David Anderson / Pace Analytical

Lead Technician Signature: David Anderson Date: 6/4/18

Pace Analytical® Field Services Division

Well Sampling Field Data Log Sheet

Well Description and Presampling Information

Client Landmark Environ. Project Kurt Mfg. 1 H2018 Project No. 18-00696

Monitoring Point ID MW-14 Labeled 766418

Inside Diameter 2 (inches) Key # A-112 ☒ Locked ☐ Not Locked

Casing Material: ☒ PVC ☐ Steel ☐ Stainless Steel Flush mount

Depth Measurement and Elevations (from top of well casing)

Top of Casing Elevation ~~NA~~ 850.29 Feet

Total Well Depth 41.90 Feet

Static water level measurement before purging (Start Depth) 28.99 Feet

Static water level measurement at time of sampling (Final Depth) NA Feet

Static Water Level Elevation Before Purging ~~NA~~ 821.30 Feet

Purge Method _____ Pump ID _____

Date Purged ~~NA~~ DJA 6/4/18 Water Column _____ Feet

Time Purged _____ One Casing Volume _____ Gallons

Pump Rate _____ GPM / LPM Volume Purged _____ Gallons

Field Sampling Data

Date Sampled 6/4/18

Time Sampled 1200

Sampling Equip. water level meter

Meter ID NA

Analyzed by DJA

Field Parameter Measurements of Sample

pH _____ (units) D.O _____ (mg/l)

Spec. Cond. _____ (µmhos/cm) Turbidity _____ (NTU)

Temp. _____ (°C) DJA 6/4/18 Eh _____ (mV)

Other _____

Field Measurements Temp. Corrected: ☐ Yes ☐ No ☒ NA

Sample for Soluble Metals Filtered in Field: ☐ Yes ☐ No ☒ NA

Weather Conditions During Sampling: 72° + sunny, wind W 5

Sample Description: NA

Observations: Water level only measured 6/4/18

Stabilization Test

Time	pH (units)	Specific Conductance (µmhos/cm)	Temp (°C)	D.O (mg/l)	Turbidity (NTU)	Eh (mV)	Volume Purged (cumulative gal)
			DJA 6/4/18				

Samples chilled immediately after collection: ☐ Yes ☒ Other NA, water level only

Form Revised: 01/25/2018

Name/Affiliation of Sampler(s): David Anderson / Pace Analytical

Lead Technician Signature: David Anderson Date: 6/4/18

Pace Analytical® Field Services Division

Well Sampling Field Data Log Sheet

Well Description and Presampling Information

Client Landmark Environ. Project Kurt Mfg. 1H 2018 Project No. 18-00696

Monitoring Point ID MW-15 Labeled 826482

Inside Diameter 2 (inches) Key # A-112 ☒ Locked ☐ Not Locked

Casing Material: ☐ PVC ☒ Steel ☐ Stainless Steel

Depth Measurement and Elevations (from top of well casing)

Top of Casing Elevation NA Feet

Total Well Depth 82.95 Feet

Static water level measurement before purging (Start Depth) 24.69 Feet

Static water level measurement at time of sampling (Final Depth) 24.76 Feet

Static Water Level Elevation Before Purging NA Feet

Purge Method Grundfos rediflo 2 Pump ID SP-1

Date Purged 6-5-18 Water Column 58.26 Feet

Time Purged 1005 - 1014 One Casing Volume 9.5 Gallons

Pump Rate 0.5 GPM (LPM) Volume Purged 4.5 ~~Gallons~~ Liters

Field Sampling Data

Date Sampled 6/5/18

Time Sampled 1020

Sampling Equip. above pump

Meter ID MPS-5

Analyzed by DJA

Field Parameter Measurements of Sample

pH 6.9 (units) D.O NA (mg/l)

Spec. Cond. 2220 (µmhos/cm) Turbidity NA (NTU)

Temp. 13.0 (°C) Eh NA (mV)

Other NA

Field Measurements Temp. Corrected: ☒ Yes ☐ No ☐ NA

Sample for Soluble Metals Filtered in Field: ☐ Yes ☐ No ☒ NA

Weather Conditions During Sampling: 67°+sunny, wind ES

Sample Description: clear + odorless

Observations:

DJA 6/5/18

Stabilization Test

Time	pH (units)	Specific Conductance (µmhos/cm)	Temp (°C)	D.O (mg/l)	Turbidity (NTU)	Eh (mV)	Volume Purged (cumulative gal)
1008	6.9	2210	13.0	NA	NA	NA	1.5 L
1011	6.9	2220	13.0	NA	NA	NA	3.0 L
1014	6.9	2220	13.0	NA	NA	NA	4.5 L

DJA 6/5/18

Samples chilled immediately after collection ☒ Yes ☐ Other

Form Revised: 01/25/2018

Name/Affiliation of Sampler(s): David Anderson / Pace Analytical

Lead Technician Signature: David Anderson Date: 6/5/18

APPENDIX C
TABULATED GROUNDWATER ELEVATION AND VOC DATA

Table 1A

Shallow Zone Quaternary Monitoring Well
Groundwater Elevations
Kurt Manufacturing Company
5280 Main Street NE
Minneapolis, Minnesota

Well ID	Date Measured	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)
MW-1	5/16/2011	852.13	31.27	820.86
MW-1	10/3/2011	852.13	31.89	820.24
MW-1	5/10/2012	852.13	31.48	820.65
MW-1	10/1/2012	852.13	33.42	818.71
MW-1	5/8/2013	852.13	31.65	820.48
MW-1	10/1/2013	852.13	32.78	819.35
MW-1	5/1/2014	852.13	31.08	821.05
MW-1	11/3/2014	852.13	31.50	820.63
MW-1	5/5/2015	852.13	31.61	820.52
MW-1	10/5/2015	852.13	30.97	821.16
MW-1	5/3/2016	852.13	29.82	822.31
MW-1	10/3/2016	852.13	29.15	822.98
MW-1	6/12/2017	852.13	28.50	823.63
MW-1	10/23/2017	852.13	28.20	823.93
MW-1	6/4/2018	852.13	28.90	823.23
MW-1	10/15/2018	852.13	28.55	823.58
MW-2	5/16/2011	852.14	30.88	821.26
MW-2	10/4/2011	852.14	29.43	822.71
MW-2	5/10/2012	852.14	31.27	820.87
MW-2	10/3/2012	852.14	31.23	820.91
MW-2	5/8/2013	852.14	31.52	820.62
MW-2	10/2/2013	852.14	31.13	821.01
MW-2	5/1/2014	852.14	31.08	821.06
MW-2	11/4/2014	852.14	30.65	821.49
MW-2	5/5/2015	852.14	31.37	820.77
MW-2	10/6/2015	852.14	29.96	822.18
MW-2	5/3/2016	852.14	29.99	822.15
MW-2	10/4/2016	852.14	27.73	824.41
MW-2	6/12/2017	852.14	27.76	824.38
MW-2	10/24/2017	852.14	27.91	824.23
MW-2	6/4/2018	852.14	28.86	823.28
MW-2	10/16/2018	852.14	28.13	824.01

Table 1A

Shallow Zone Quaternary Monitoring Well
Groundwater Elevations
Kurt Manufacturing Company
5280 Main Street NE
Minneapolis, Minnesota

Well ID	Date Measured	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)
MW-3	5/16/2011	846.21	31.08	815.13
MW-3	10/4/2011	846.21	31.84	814.37
MW-3	5/10/2012	846.21	31.92	814.29
MW-3	10/2/2012	846.21	32.70	813.51
MW-3	5/8/2013	846.21	32.50	813.71
MW-3	10/2/2013	846.21	32.70	813.51
MW-3	5/1/2014	846.21	2.48	843.73
MW-3	11/4/2014	846.21	25.65	820.56
MW-3	5/6/2015	846.21	26.14	820.07
MW-3	10/6/2015	846.21	31.99	814.22
MW-3	5/4/2016	846.21	31.81	814.40
MW-3	10/4/2016	846.21	32.22	813.99
MW-3	6/12/2017	846.21	31.58	814.63
MW-3	10/26/2017	846.21	32.66	813.55
MW-3	6/5/2018	846.21	3.07	843.14
MW-3	10/16/2018	846.21	7.70	838.51
MW-4	5/16/2011	847.33	25.80	821.53
MW-4	10/3/2016	847.33	24.63	822.70
MW-4	5/10/2012	847.33	25.98	821.35
MW-4	10/3/2012	847.33	26.37	820.96
MW-4	5/8/2013	847.33	26.42	820.91
MW-4	10/2/2013	847.33	26.17	821.16
MW-4	5/1/2014	847.33	25.87	821.46
MW-4	11/4/2014	847.33	25.48	821.85
MW-4	5/5/2015	847.33	25.83	821.50
MW-4	10/5/2015	847.33	24.95	822.38
MW-4	5/3/2016	847.33	24.57	822.76
MW-4	10/3/2016	847.33	23.14	824.19
MW-4	6/12/2017	847.33	22.30	825.03
MW-4	10/25/2017	847.33	22.49	824.84
MW-4	6/4/2018	847.33	23.15	824.18
MW-4	10/15/2018	847.33	22.92	824.41

Table 1A

Shallow Zone Quaternary Monitoring Well
Groundwater Elevations
Kurt Manufacturing Company
5280 Main Street NE
Minneapolis, Minnesota

Well ID	Date Measured	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)
MW-5	5/16/2011	847.23	25.93	821.30
MW-5	10/3/2011	847.23	24.22	823.01
MW-5	5/10/2012	847.23	26.27	820.96
MW-5	10/3/2012	847.23	26.09	821.14
MW-5	5/8/2013	847.23	26.60	820.63
MW-5	10/2/2013	847.23	25.98	821.25
MW-5	5/1/2014	847.23	26.18	821.05
MW-5	11/4/2014	847.23	25.62	821.61
MW-5	5/5/2015	847.23	26.33	820.90
MW-5	10/6/2015	847.23	24.92	822.31
MW-5	5/3/2016	847.23	25.09	822.14
MW-5	10/4/2016	847.23	22.78	824.45
MW-5	6/12/2017	847.23	22.73	824.50
MW-5	10/23/2017	847.23	22.89	824.34
MW-5	6/4/2018	847.23	23.89	823.34
MW-5	10/16/2018	847.23	23.15	824.08
MW-6	5/16/2011	853.95	33.40	820.55
MW-6	10/4/2011	853.95	33.97	819.98
MW-6	5/10/2012	853.95	33.60	820.35
MW-6	10/3/2012	853.95	35.80	818.15
MW-6	5/8/2013	853.95	33.91	820.04
MW-6	10/2/2013	853.95	35.13	818.82
MW-6	5/1/2014	853.95	32.64	821.31
MW-6	11/4/2014	853.95	34.21	819.74
MW-6	5/6/2015	853.95	34.16	819.79
MW-6	10/6/2015	853.95	33.41	820.54
MW-6	5/4/2016	853.95	32.38	821.57
MW-6	10/4/2016	853.95	31.31	822.64
MW-6	6/12/2017	853.95	30.83	823.12
MW-6	10/26/2017	853.95	30.60	823.35
MW-6	6/5/2018	853.95	31.41	822.54
MW-6	10/16/2018	853.95	30.83	823.12

Table 1A

Shallow Zone Quaternary Monitoring Well
Groundwater Elevations
Kurt Manufacturing Company
5280 Main Street NE
Minneapolis, Minnesota

Well ID	Date Measured	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)
MW-10	5/16/2011	854.80	34.06	820.74
MW-10	10/3/2011	854.80	34.74	820.06
MW-10	5/10/2012	854.80	34.38	820.42
MW-10	10/1/2012	854.80	36.29	818.51
MW-10	5/8/2013	854.80	34.47	820.33
MW-10	10/1/2013	854.80	35.73	819.07
MW-10	5/1/2014	854.80	33.95	820.85
MW-10	11/3/2014	854.80	34.49	820.31
MW-10	5/5/2015	854.80	34.61	820.19
MW-10	10/5/2015	854.80	33.97	820.83
MW-10	5/3/2016	854.80	32.84	821.96
MW-10	10/3/2016	854.80	32.10	822.70
MW-10	6/12/2017	854.80	31.56	823.24
MW-10	10/23/2017	854.80	31.25	823.55
MW-10	6/4/2018	854.80	31.25	823.55
MW-10	10/15/2018	854.80	31.67	823.13
MW-12	5/16/2011	853.10	32.57	820.53
MW-12	10/3/2011	853.10	33.31	819.79
MW-12	5/10/2012	853.10	32.96	820.14
MW-12	10/1/2012	853.10	34.89	818.21
MW-12	5/8/2013	853.10	33.02	820.08
MW-12	10/1/2013	853.10	34.37	818.73
MW-12	5/1/2014	853.10	32.48	820.62
MW-12	11/3/2014	853.10	33.14	819.96
MW-12	5/6/2015	853.10	33.22	819.88
MW-12	10/5/2015	853.10	32.60	820.50
MW-12	5/3/2016	853.10	31.45	821.65
MW-12	10/3/2016	853.10	30.60	822.50
MW-12	6/12/2017	853.10	30.19	822.91
MW-12	10/24/2017	853.10	29.92	823.18
MW-12	6/5/2018	853.10	30.84	822.26
MW-12	10/15/2018	853.10	30.33	822.77

Table 1A

Shallow Zone Quaternary Monitoring Well
Groundwater Elevations
Kurt Manufacturing Company
5280 Main Street NE
Minneapolis, Minnesota

Well ID	Date Measured	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)
MW-14	5/16/2011	851.63	31.07	820.56
MW-14	10/4/2011	851.63	31.69	819.94
MW-14	5/10/2012	851.63	31.43	820.20
MW-14	10/2/2012	851.63	33.32	818.31
MW-14	5/8/2013	851.63	31.55	820.08
MW-14	10/1/2013	851.63	32.72	818.91
MW-14	5/1/2014	851.63	30.98	820.65
MW-14	11/3/2014	851.63	31.62	820.01
MW-14	5/5/2015	851.63	31.70	819.93
MW-14	10/6/2015	851.63	31.04	820.59
MW-14	5/3/2016	851.63	29.96	821.67
MW-14	10/4/2016	851.63	29.12	822.51
MW-14	6/12/2017	851.63	28.48	823.15
MW-14	10/23/2017	851.63	29.60	822.03
MW-14	6/4/2018	851.63	28.99	822.64
MW-14	10/16/2018	851.63	28.66	822.97

Table 1B

Deep Zone Quaternary Monitoring Well
Groundwater Elevations
Kurt Manufacturing Company
5280 Main Street NE
Minneapolis, Minnesota

Well ID	Date Measured	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)
MW-7	5/16/2011	846.37	25.74	820.63
MW-7	10/4/2011	846.37	26.38	819.99
MW-7	5/10/2012	846.37	26.08	820.29
MW-7	10/3/2013	846.37	27.98	818.39
MW-7	5/8/2013	846.37	26.22	820.15
MW-7	10/2/2013	846.37	27.39	818.98
MW-7	5/1/2014	846.37	25.60	820.77
MW-7	11/4/2014	846.37	26.22	820.15
MW-7	5/6/2015	846.37	26.15	820.22
MW-7	10/6/2015	846.37	25.61	820.76
MW-7	5/4/2016	846.37	24.69	821.68
MW-7	10/4/2016	846.37	23.74	822.63
MW-7	6/12/2017	846.37	23.25	823.12
MW-7	10/26/2017	846.37	22.86	823.51
MW-7	6/4/2018	846.37	23.64	822.73
MW-7	10/16/2018	846.37	23.21	823.16
MW-8	5/16/2011	852.41	30.99	821.42
MW-8	10/4/2011	852.41	29.75	822.66
MW-8	5/10/2012	852.41	31.39	821.02
MW-8	10/3/2012	852.41	31.50	820.91
MW-8	5/8/2013	852.41	31.62	820.79
MW-8	10/2/2013	852.41	31.42	820.99
MW-8	5/1/2014	852.41	31.17	821.24
MW-8	11/4/2014	852.41	30.88	821.53
MW-8	5/6/2015	852.41	31.45	820.96
MW-8	10/6/2015	852.41	30.20	822.21
MW-8	5/3/2016	852.41	30.09	822.32
MW-8	10/4/2016	852.41	27.97	824.44
MW-8	6/12/2017	852.41	27.95	824.46
MW-8	10/24/2017	852.41	28.05	824.36
MW-8	6/5/2018	852.41	29.03	823.38
MW-8	10/16/2018	852.41	28.22	824.19

Table 1B

Deep Zone Quaternary Monitoring Well
Groundwater Elevations
Kurt Manufacturing Company
5280 Main Street NE
Minneapolis, Minnesota

Well ID	Date Measured	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)
MW-9	5/16/2011	847.24	26.29	820.95
MW-9	10/4/2011	847.24	25.91	821.33
MW-9	5/10/2012	847.24	26.61	820.63
MW-9	10/1/2012	847.24	27.62	819.62
MW-9	5/8/2013	847.24	26.85	820.39
MW-9	10/2/2013	847.24	27.19	820.05
MW-9	5/1/2014	847.24	26.32	820.92
MW-9	11/4/2014	847.24	26.40	820.84
MW-9	5/5/2015	847.24	26.70	820.54
MW-9	10/6/2015	847.24	25.68	821.56
MW-9	5/3/2016	847.24	25.19	822.05
MW-9	10/4/2016	847.24	23.65	823.59
MW-9	6/12/2017	847.24	23.32	823.92
MW-9	10/23/2017	847.24	23.32	823.92
MW-9	6/4/2018	847.24	24.11	823.13
MW-9	10/16/2018	847.24	23.56	823.68
MW-13	5/16/2011	851.65	31.08	820.57
MW-13	10/4/2011	851.65	31.79	819.86
MW-13	5/10/2012	851.65	31.42	820.23
MW-13	10/2/2012	851.65	33.35	818.30
MW-13	5/8/2013	851.65	31.51	820.14
MW-13	10/1/2013	851.65	32.74	818.91
MW-13	5/1/2014	851.65	30.93	820.72
MW-13	11/3/2014	851.65	31.65	820.00
MW-13	5/5/2015	851.65	31.72	819.93
MW-13	10/6/2015	851.65	31.05	820.60
MW-13	5/3/2016	851.65	29.94	821.71
MW-13	10/4/2016	851.65	29.20	822.45
MW-13	6/12/2017	851.65	28.64	823.01
MW-13	10/23/2017	851.65	29.71	821.94
MW-13	6/4/2018	851.65	29.11	822.54
MW-13	10/16/2018	851.65	28.67	822.98
MW-15	6/12/2017	848.13	24.25	823.88
MW-15	10/25/2017	848.13	23.91	824.22
MW-15	6/5/2018	848.13	24.69	823.44
MW-15	10/16/2018	848.13	24.31	823.82

Table 1B

Deep Zone Quaternary Monitoring Well
Groundwater Elevations
Kurt Manufacturing Company
5280 Main Street NE
Minneapolis, Minnesota

Well ID	Date Measured	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)
Well B	5/16/2011	849.61	29.00	820.61
Well B	10/3/2011	849.61	29.73	819.88
Well B	5/10/2012	849.61	29.33	820.28
Well B	10/1/2012	849.61	31.22	818.39
Well B	5/8/2013	849.61	29.48	820.13
Well B	10/1/2013	849.61	30.67	818.94
Well B	5/1/2014	849.61	28.85	820.76
Well B	11/3/2014	849.61	29.63	819.98
Well B	5/5/2015	849.61	29.63	819.98
Well B	10/5/2015	849.61	28.94	820.67
Well B	5/3/2016	849.61	27.80	821.81
Well B	10/3/2016	849.61	27.13	822.48
Well B	6/12/2017	849.61	26.57	823.04
Well B	10/25/2017	849.61	26.13	823.48
Well B	6/4/2018	849.61	26.95	822.66
Well B	10/15/2018	849.61	26.58	823.03
RW-C	5/16/2011	852.55	37.53	815.02
RW-C	10/4/2011	852.55	38.23	814.32
RW-C	5/10/2012	852.55	38.22	814.33
RW-C	10/3/2012	852.55	39.82	812.73
RW-C	5/8/2013	852.55	37.54	815.01
RW-C	10/2/2016	852.55	38.61	813.94
RW-C	5/1/2014	852.55	36.42	816.13
RW-C	11/4/2014	852.55	40.70	811.85
RW-C	5/6/2015	852.55	40.69	811.86
RW-C	10/6/2015	852.55	40.50	812.05
RW-C	5/4/2016	852.55	40.11	812.44
RW-C	10/5/2016	852.55	39.10	813.45
RW-C	6/12/2017	852.55	37.78	814.77
RW-C	10/25/2017	852.55	37.50	815.05
RW-C	6/5/2018	852.55	38.25	814.30
RW-C	10/16/2018	852.55	37.28	815.27

Table 1C

Prairie du Chien Monitoring Well
Groundwater Elevations
Kurt Manufacturing Company
5280 Main Street NE
Minneapolis, Minnesota

Well ID	Date Measured	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)
PC-1	5/16/2011	853.04	32.53	820.51
PC-1	10/3/2011	853.04	33.41	819.63
PC-1	5/10/2012	853.04	32.97	820.07
PC-1	10/1/2012	853.04	34.97	818.07
PC-1	5/8/2013	853.04	33.05	819.99
PC-1	10/1/2013	853.04	34.43	818.61
PC-1	5/1/2014	853.04	32.48	820.56
PC-1	11/3/2014	853.04	33.20	819.84
PC-1	5/5/2015	853.04	33.22	819.82
PC-1	10/5/2015	853.04	32.62	820.42
PC-1	5/3/2016	853.04	31.50	821.54
PC-1	10/3/2016	853.04	30.78	822.26
PC-1	6/12/2017	853.04	30.34	822.70
PC-1	10/24/2017	853.04	30.04	823.00
PC-1	6/4/2018	853.04	30.82	822.22
PC-1	10/15/2018	853.04	30.40	822.64
PC-2	5/16/2011	851.41	30.69	820.72
PC-2	10/3/2011	851.41	31.55	819.86
PC-2	5/10/2012	851.41	31.09	820.32
PC-2	10/1/2012	851.41	33.10	818.31
PC-2	5/8/2013	851.41	31.20	820.21
PC-2	10/1/2013	851.41	32.49	818.92
PC-2	5/1/2014	851.41	30.59	820.82
PC-2	11/3/2014	851.41	31.30	820.11
PC-2	5/5/2015	851.41	31.33	820.08
PC-2	10/5/2015	851.41	30.66	820.75
PC-2	5/3/2016	851.41	29.47	821.94
PC-2	10/3/2016	851.41	28.79	822.62
PC-2	6/12/2017	851.41	28.38	823.03
PC-2	10/24/2017	851.41	28.02	823.39
PC-2	6/4/2018	851.41	28.80	822.61
PC-2	10/15/2018	851.41	28.37	823.04

Table 1C

Prairie du Chien Monitoring Well
Groundwater Elevations
Kurt Manufacturing Company
5280 Main Street NE
Minneapolis, Minnesota

Well ID	Date Measured	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)
DPW	5/16/2011	852.37	31.49	820.88
DPW	10/3/2011	852.37	32.49	819.88
DPW	5/10/2012	852.37	31.69	820.68
DPW	10/1/2012	852.37	33.82	818.55
DPW	5/8/2013	852.37	31.93	820.44
DPW	10/1/2013	852.37	33.27	819.10
DPW	5/1/2014	852.37	31.39	820.98
DPW	11/3/2014	852.37	31.82	820.55
DPW	5/5/2015	852.37	31.88	820.49
DPW	10/5/2015	852.37	31.29	821.08
DPW	5/3/2016	852.37	29.88	822.49
DPW	10/3/2016	852.37	29.38	822.99
DPW	6/12/2017	852.37	29.04	823.33
DPW	10/26/2017	852.37	28.40	823.97
DPW	6/4/2018	852.37	29.24	823.13
DPW	10/15/2018	852.37	28.78	823.59

Table 2A

Shallow Zone Quaternary Monitoring Well
VOC Concentrations
Kurt Manufacturing Company
5280 Main Street NE
Minneapolis, Minnesota

Sample ID Collected Date	MDH Compliance Standards*		CAS Number	MW-1 Oct-18	MW-1 Jun-18	MW-1 Oct-17	MW-1 Jun-17	MW-1 Oct-16	MW-1 May-16	MW-1 Oct-15	MW-1 May-15	MW-1 Nov-14	MW-1 May-14	MW-1 Oct-13	MW-1 May-13	MW-1 Oct-12	MW-1 May-12	MW-1 Oct-11	MW-1 May-11
Acetone	4,000	HRL_{11}	67-64-1	<50.0	NS	<8.8	20 U	<20.0	NS	<20.0	NS	<20.0	NS	<20.0	NS	<25.0	NS	<25.0	NS
Allyl chloride	30	HRL_{94}	107-05-1	<5.00	NS	<1.0	<0.25	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
Benzene	2	HRL_{09}	71-43-2	<1.00	NS	<0.34	<0.16	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Bromobenzene	-	NCS	108-86-1	<1.00	NS	<0.16	<0.34	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Bromochloromethane	-	NCS	74-97-5	<5.00	NS	<0.38	<0.19	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Bromodichloromethane	6	HRL_{93}	75-27-4	<1.00	NS	<0.20	<0.068	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Bromoform	40	HRL_{93}	75-25-2	<1.00	NS	<1.0	<0.27	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
Bromomethane	10	HRL_{93}	74-83-9	<5.00	NS	<1.5	<0.44	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<10.0	NS	<4.0	NS
2-Butanone (MEK)	4,000	HRL_{94}	78-93-3	<10.0	NS	<2.4	<1.1	<5.0	NS	<5.0	NS	<5.0	NS	<5.0	NS	<4.0	NS	<4.0	NS
n-Butylbenzene	-	NCS	104-51-8	<1.00	NS	<0.13	<0.16	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
sec-Butylbenzene	-	NCS	135-98-8	<1.00	NS	<0.12	<0.19	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
tert-Butylbenzene	-	NCS	98-06-6	<1.00	NS	<0.15	<0.22	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Carbon Disulfide	700	HRL_{93}	75-15-0	NA	NS	<0.37	<0.30	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NA
Carbon tetrachloride	1	HRL_{10}	56-23-5	<1.00	NS	<0.20	<0.20	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Chlorobenzene	100	HRL_{93}	108-90-7	<1.00	NS	<0.14	<0.11	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Chloroethane	-	NCS	75-00-3	<5.00	NS	<0.44	<0.34	<1.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<1.0	NS	<1.0	NS
Chloroform	30	HRL	67-66-3	<5.00	NS	<0.46	<0.21	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Chloromethane	-	NCS	74-87-3	<2.50	NS	<1.1	<0.25	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
2-Chlorotoluene	-	NCS	95-49-8	<1.00	NS	<0.20	<0.30	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
4-Chlorotoluene	-	NCS	106-43-4	<1.00	NS	<0.13	<0.26	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2-Dibromo-3-chloropropane	-	NCS	96-12-8	<5.00	NS	<0.0035	<0.0011	<10.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
Dibromochloromethane	10	HRL_{93}	124-48-1	<1.00	NS	<0.13	<0.048	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2-Dibromoethane (EDB)	0.004	HRL_{93}	106-93-4	<1.00	NS	<0.0038	<0.0016	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Dibromomethane	-	NCS	74-95-3	<1.00	NS	<0.50	<0.19	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,2-Dichlorobenzene	600	HRL_{93}	95-50-1	<1.00	NS	<0.21	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,3-Dichlorobenzene	-	NCS	541-73-1	<1.00	NS	<0.16	<0.12	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,4-Dichlorobenzene	10	HRL_{94}	106-46-7	<1.00	NS	<0.10	<0.21	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Dichlorodifluoromethane	700	HRL_{11}	75-71-8	<5.00	NS	<0.31	<0.23	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1-Dichloroethane (DCA)	80	RAA_{16}	75-34-3	<1.00	NS	<0.14	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2-Dichloroethane	1	HRL_{13}	107-06-2	<1.00	NS	<0.32	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1-Dichloroethene (DCE)	200	HRL_{11}	75-35-4	<1.00	NS	<0.18	<0.28	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
cis-1,2-Dichloroethylene (cis DCE)	6	HBV_{14}	156-59-2	<1.00	NS	<0.20	<0.12	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
trans-1,2-Dichloroethylene (trans DCE)	40	HRL_{13}	156-60-5	<1.00	NS	<0.21	<0.16	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<4.0	NS
Dichlorofluoromethane	30	RAA_{15}	75-43-4	<5.00	NS	<0.38	<0.21	<1.0	NS	<1.0	NS	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2-Dichloropropane	5	HRL_{94}	78-87-5	<1.00	NS	<0.62	<0.22	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,3-Dichloropropane	-	NCS	142-28-9	<1.00	NS	<0.13	<0.096	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
2,2-Dichloropropane	-	NCS	594-20-7	<1.00	NS	<0.40	<0.13	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,1-Dichloropropene	-	NCS	563-58-6	<1.00	NS	<0.18	<0.23	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
cis-1,3-Dichloropropene	-	NCS	10061-01-5	<1.00	NS	<0.12	<0.15	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
trans-1,3-Dichloropropene	-	NCS	10061-02-6	<1.00	NS	<0.14	<0.15	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
Diethyl ether (Ethyl ether)	200	RAA_{16}	60-29-7	<1.00	NS	<1.3	<0.19	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,4-Dioxane	1	HRL_{13}	123-91-1	NA	NS	<0.36	<0.36	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NA
Ethylbenzene	50	HRL_{11}	100-41-4	<1.00	NS	<0.14	<0.15	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Hexachloro-1,3-butadiene	1	HRL_{93}	87-68-3	<1.00	NS	<0.48	<0.18	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<5.0	NS	<5.0	NS
2-Hexanone	-	NCS	591-78-6	NA	NS	<2.5	<0.19	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NA
Isopropylbenzene (Cumene)	300	HRL_{09}	98-82-8	<1.00	NS	<0.17	<0.25	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
p-Isopropyltoluene	-	NCS	99-87-6	<1.00	NS	<0.14	<0.19	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Methylene Chloride	5	HRL_{MCL}	75-09-2	<5.00	NS	<1.2	<0.29	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
4-Methyl-2-pentanone (MIBK)	300	HRL_{94}	108-10-1	<10.0	NS	<0.55	<0.43	<5.0	NS	<5.0	NS	<5.0	NS	<5.0	NS	<4.0	NS	<4.0	NS
Methyl-tert-butyl ether	60	RAA_{13}	1634-04-4	<1.00	NS	<0.40	<0.15	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Naphthalene	70	HRL_{13}	91-20-3	<5.00	NS	<0.42	<0.20	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
n-Propylbenzene	-	NCS	103-65-1	<1.00	NS	<0.15	<0.23	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Styrene	-	NCS	100-42-5	<1.00	NS	<0.14	<0.29	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1,1,2-Tetrachloroethane	70	HRL_{93}	630-20-6	<1.00	NS	<0.14	<0.064	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1,2,2-Tetrachloroethane	2	HRL_{94}	79-34-5	<1.00	NS	<0.19	<0.22	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Tetrachloroethylene (PCE)	4	HBV_{14}	127-18-4	<1.00	NS	**0.51** J	**0.32** J	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Tetrahydrofuran	600	HBV_{15}	109-99-9	<5.00	NS	<4.3	<1.5	<10.0	NS	<10.0	NS	<10.0	NS	<10.0	NS	<10.0	NS	<10.0	NS
Toluene	200	HRL_{11}	108-88-3	<1.00	NS	<0.17	<0.14	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2,3-Trichlorobenzene	-	NCS	87-61-6	<1.00	NS	<0.14	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2,4-Trichlorobenzene	4	HRL_{13}	120-82-1	<1.00	NS	<0.18	<0.21	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1,1-Trichloroethane	9,000	HRL_{09}	71-55-6	<1.00	NS	<0.15	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1,2-Trichloroethane	3	HRL_{93}	79-00-5	<1.00	NS	<0.22	<0.15	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Trichloroethylene (TCE)	0.4	HRL_{15}	79-01-6	<1.00	NS	<0.18	<0.052	<0.40	NS	<0.40	NS	<0.40	NS	<0.40	NS	<1.0	NS	<1.0	NS
Trichlorofluoromethane	2,000	HRL_{93}	75-69-4	<5.00	NS	<0.13	<0.33	<1.0	NS	<1.0	NS	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2,3-Trichloropropane	0.003	HRL_{13}	96-18-4	<2.50	NS	<0.66	<0.28	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,1,2-Trichlorotrifluoroethane	200,000	HRL_{93}	76-13-1	<1.00	NS	<0.28	<0.32	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2,4-Trimethylbenzene	100	RAA_{10}	95-63-6	<1.00	NS	<0.14	<0.18	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,3,5-Trimethylbenzene	100	HRL_{09}	108-67-8	<1.00	NS	<0.18	<0.27	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Vinyl chloride	0.2	HRL_{09}	75-01-4	<1.00	NS	<0.096	<0.069	<0.20	NS	<0.40	NS	<0.40	NS	<0.40	NS	<0.40	NS	<0.40	NS
Xylene (Total)	300	HRL_{11}	1330-20-7	<3.00	NS	<0.24	<0.32	<3.0	NS	<3.0	NS	<3.0	NS	<3.0	NS	<3.0	NS	<3.0	NS
m&p-Xylene	300	HRL_{11}	179601-23-1	NA	NS	<0.24	<0.11	NA	NS	NA	NS	NA	NS	NA	NS	<2.0	NS	<2.0	NS
o-Xylene	300	HRL_{11}	95-47-6	NA	NS	<0.17	<0.20	NA	NS	NA	NS	NA	NS	NA	NS	<1.0	NS	<1.0	NS
Total VOCs				**0.0**	**0.0**	**0.5**	**0.3**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

* Subscripts either indicate the last two digits of the year the standard was developed or is based on a US EPA Maximum Contaminant Level (MCL)
VOCs: Volatile Organic Compounds
TAL: Total Analyte List
PAHs: Polycyclic Aromatic Hydrocarbons
HBV: Health Based Value
HRL: Health Risk Limit
RAA: Risk Assessment Advice
MDH: Minnesota Department of Health
NA: Not Analyzed
NCS: No MDH Compliance Standard
NS: Not Sampled
U: The analyte was not detected above the laboratory reporting limit or method detection limit

J: Estimated value, the value was between the Method Detection Limit and the lab reporting limit
J_{11}: Estimated value, the method blank was >reporting limit; the sample was <10X the blank result, the data may be baised high
BOLD Parameter detected above laboratory reporting limit
BOLD Parameter detected above MDH Compliance Standards

Table 2A

Shallow Zone Quaternary Monitoring Well
VOC Concentrations
Kurt Manufacturing Company
5280 Main Street NE
Minneapolis, Minnesota

Sample ID Collected Date	MDH Compliance Standards*		CAS Number	MW-2 Oct-18	MW-2 Jun-18	MW-2 Oct-17	MW-2 Jun-17	MW-2 Oct-16	MW-2 May-16	MW-2 Oct-15	MW-2 May-15	MW-2 Nov-14	MW-2 May-14	MW-2 Oct-13	MW-2 May-13	MW-2 Oct-12	MW-2 May-12	MW-2 Oct-11	MW-2 May-11
Acetone	4,000	HRL_{11}	67-64-1	<50.0	NS	<8.8	20 U	<20.0	NS	<20.0	NS	<20.0	NS	<20.0	NS	<25.0	NS	<25.0	NS
Allyl chloride	30	HRL_{94}	107-05-1	<5.00	NS	<1.0	<0.25	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
Benzene	2	HRL_{09}	71-43-2	<1.00	NS	<0.34	<0.16	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Bromobenzene	-	NCS	108-86-1	<1.00	NS	<0.16	<0.34	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Bromochloromethane	-	NCS	74-97-5	<5.00	NS	<0.38	<0.19	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Bromodichloromethane	6	HRL_{93}	75-27-4	<1.00	NS	<0.20	<0.068	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Bromoform	40	HRL_{93}	75-25-2	<1.00	NS	<1.0	<0.27	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
Bromomethane	10	HRL_{93}	74-83-9	<5.00	NS	<1.5	<0.44	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
2-Butanone (MEK)	4,000	HRL_{94}	78-93-3	<10.0	NS	<2.4	<1.1	<5.0	NS	<5.0	NS	<5.0	NS	<5.0	NS	<4.0	NS	<4.0	NS
n-Butylbenzene	-	NCS	104-51-8	<1.00	NS	<0.13	<0.16	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
sec-Butylbenzene	-	NCS	135-98-8	<1.00	NS	<0.12	<0.19	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
tert-Butylbenzene	-	NCS	98-06-6	<1.00	NS	<0.15	<0.22	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Carbon Disulfide	700	HRL_{93}	75-15-0	NA	NS	<0.37	<0.30	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NA
Carbon tetrachloride	1	HRL_{13}	56-23-5	<1.00	NS	<0.20	<0.20	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Chlorobenzene	100	HRL_{93}	108-90-7	<1.00	NS	<0.14	<0.11	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Chloroethane	-	NCS	75-00-3	<5.00	NS	<0.44	<0.34	<1.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<1.0	NS	<1.0	NS
Chloroform	30	HRL	67-66-3	<5.00	NS	<0.46	<0.21	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Chloromethane	-	NCS	74-87-3	<2.50	NS	<1.1	<0.25	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
2-Chlorotoluene	-	NCS	95-49-8	<1.00	NS	<0.20	<0.30	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
4-Chlorotoluene	-	NCS	106-43-4	<1.00	NS	<0.13	<0.26	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2-Dibromo-3-chloropropane	-	NCS	96-12-8	<5.00	NS	<0.0037 J_3	<0.0011	<10.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
Dibromochloromethane	10	HRL_{93}	124-48-1	<1.00	NS	<0.13	<0.048	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2-Dibromoethane (EDB)	0.004	HRL_{93}	106-93-4	<1.00	NS	<0.0040 J_3	<0.0016	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Dibromomethane	-	NCS	74-95-3	<1.00	NS	<0.50	<0.19	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,2-Dichlorobenzene	600	HRL_{93}	95-50-1	<1.00	NS	<0.21	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,3-Dichlorobenzene	-	NCS	541-73-1	<1.00	NS	<0.16	<0.12	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,4-Dichlorobenzene	10	HRL_{94}	106-46-7	<1.00	NS	<0.10	<0.21	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Dichlorodifluoromethane	700	HRL_{11}	75-71-8	<5.00	NS	<0.31	<0.23	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1-Dichloroethane (DCA)	80	RAA_{16}	75-34-3	**0.615** J	NS	**0.69** J	**0.88** J	<1.0	NS	<1.0	NS	<1.0	NS	**1.1**	NS	<1.0	NS	<1.0	NS
1,2-Dichloroethane	1	HRL_{13}	107-06-2	<1.00	NS	<0.32	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1-Dichloroethene (DCE)	200	HRL_{11}	75-35-4	<1.00	NS	<0.18	<0.28	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
cis-1,2-Dichloroethylene (cis DCE)	6	HBV_{14}	156-59-2	**1.36**	NS	**2.90**	**2.9**	**3.4**	NS	**1.5**	NS	**2.6**	NS	**3.0**	NS	**1.7**	NS	**2.9**	NS
trans-1,2-Dichloroethylene (trans DCE)	40	HRL_{13}	156-60-5	<1.00	NS	<0.21	<0.16	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<4.0	NS
Dichlorofluoromethane	30	RAA_{15}	75-43-4	<5.00 J_4	NS	<0.38	<0.21	<1.0	NS	<1.0	NS	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2-Dichloropropane	5	HRL_{94}	78-87-5	<1.00	NS	<0.62	<0.22	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,3-Dichloropropane	-	NCS	142-28-9	<1.00	NS	<0.13	<0.096	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
2,2-Dichloropropane	-	NCS	594-20-7	<1.00	NS	<0.40	<0.13	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,1-Dichloropropene	-	NCS	563-58-6	<1.00	NS	<0.18	<0.23	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
cis-1,3-Dichloropropene	-	NCS	10061-01-5	<1.00	NS	<0.12	<0.15	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
trans-1,3-Dichloropropene	-	NCS	10061-02-6	<1.00	NS	<0.14	<0.15	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
Diethyl ether (Ethyl ether)	200	RAA_{16}	60-29-7	<1.00	NS	<1.3	<0.19	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,4-Dioxane	1	HRL_{13}	123-91-1	NA	NS	**0.86** J	**0.44** J	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NA
Ethylbenzene	50	HRL_{11}	100-41-4	<1.00	NS	<0.14	<0.15	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Hexachloro-1,3-butadiene	1	HRL_{93}	87-68-3	<1.00	NS	<0.48	<0.18	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<5.0	NS	<5.0	NS
2-Hexanone	-	NCS	591-78-6	NA	NS	<2.5	<0.19	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NA
Isopropylbenzene (Cumene)	300	HRL_{93}	98-82-8	<1.00	NS	<0.17	<0.25	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
p-Isopropyltoluene	-	NCS	99-87-6	<1.00	NS	<0.14	<0.19	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Methylene Chloride	5	HRL_{MCL}	75-09-2	<5.00	NS	<1.2	<0.29	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
4-Methyl-2-pentanone (MIBK)	300	HRL_{94}	108-10-1	<10.0	NS	<0.55	<0.43	<5.0	NS	<5.0	NS	<5.0	NS	<5.0	NS	<4.0	NS	<4.0	NS
Methyl-tert-butyl ether	60	RAA_{13}	1634-04-4	<1.00	NS	<0.40	<0.15	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Naphthalene	70	HRL_{13}	91-20-3	<5.00	NS	<0.42	<0.20	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
n-Propylbenzene	-	NCS	103-65-1	<1.00	NS	<0.15	<0.23	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Styrene	-	NCS	100-42-5	<1.00	NS	<0.14	<0.29	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1,1,2-Tetrachloroethane	70	HRL_{93}	630-20-6	<1.00	NS	<0.14	<0.064	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1,2,2-Tetrachloroethane	2	HRL_{94}	79-34-5	<1.00	NS	<0.19	<0.22	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Tetrachloroethylene (PCE)	4	HBV_{14}	127-18-4	<1.00	NS	**0.62** J	**0.88** J	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Tetrahydrofuran	600	HBV_{16}	109-99-9	<5.00	NS	<4.3	<1.5	<10.0	NS	<10.0	NS	<10.0	NS	<10.0	NS	<10.0	NS	<10.0	NS
Toluene	200	HRL_{11}	108-88-3	<1.00	NS	<0.17	<0.14	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2,3-Trichlorobenzene	-	NCS	87-61-6	<1.00	NS	<0.14	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2,4-Trichlorobenzene	4	HRL_{13}	120-82-1	<1.00	NS	<0.18	<0.21	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1,1-Trichloroethane	9,000	HRL_{09}	71-55-6	<1.00	NS	<0.15	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1,2-Trichloroethane	3	HRL_{93}	79-00-5	<1.00	NS	<0.22	<0.15	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Trichloroethylene (TCE)	0.4	HRL_{15}	79-01-6	<1.00	NS	**0.92**	**1.1**	**0.65**	NS	<0.40	NS	<0.40	NS	<0.40	NS	<1.0	NS	<1.0	NS
Trichlorofluoromethane	2,000	HRL_{93}	75-69-4	<5.00	NS	<0.13	<0.33	<1.0	NS	<1.0	NS	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2,3-Trichloropropane	0.003	HRL_{13}	96-18-4	<2.50	NS	<0.66	<0.28	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,1,2-Trichlorotrifluoroethane	200,000	HRL_{93}	76-13-1	<1.00	NS	<0.28	<0.32	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2,4-Trimethylbenzene	100	RAA_{10}	95-63-6	<1.00	NS	<0.14	<0.18	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,3,5-Trimethylbenzene	100	HRL_{09}	108-67-8	<1.00	NS	<0.18	<0.27	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Vinyl chloride	0.2	HRL_{09}	75-01-4	<1.00	NS	<0.096	<0.069	<0.20	NS	<0.40	NS	<0.40	NS	<0.40	NS	<0.40	NS	<0.40	NS
Xylene (Total)	300	HRL_{11}	1330-20-7	<3.00	NS	<0.24	<0.32	<3.0	NS	<3.0	NS	<3.0	NS	<3.0	NS	<3.0	NS	<3.0	NS
m&p-Xylene	300	HRL_{11}	179601-23-1	NA	NS	<0.24	<0.11	NA	NS	NA	NS	NA	NS	NA	NS	<2.0	NS	<2.0	NS
o-Xylene	300	HRL_{11}	95-47-6	NA	NS	<0.17	<0.20	NA	NS	NA	NS	NA	NS	NA	NS	<1.0	NS	<1.0	NS
Total VOCs				**2.0**	**0.0**	**6.0**	**6.2**	**4.1**	**0.0**	**1.5**	**0.0**	**2.6**	**0.0**	**4.1**	**0.0**	**1.7**	**0.0**	**2.9**	**0.0**

* Subscripts either indicate the last two digits of the year the standard was developed or is based on a US EPA Maximum Contaminant Level (MCL)
VOCs: Volatile Organic Compounds
TAL: Total Analyte List
PAHs: Polycyclic Aromatic Hydrocarbons
HBV: Health Based Value
HRL: Health Risk Limit
RAA: Risk Assessment Advice
MDH: Minnesota Department of Health
NA: Not Analyzed
NCS: No MDH Compliance Standard
NS: Not Sampled
U: The analyte was not detected above the laboratory reporting limit or method detection limit

J: Estimated value, the value was between the Method Detection Limit and the lab reporting limit
J_{11} Estimated value, the method blank was >reporting limit; the sample was <10X the blank result, the data may be baised high
BOLD Parameter detected above laboratory reporting limit
BOLD Parameter detected above MDH Compliance Standards

Table 2A

Shallow Zone Quaternary Monitoring Well
VOC Concentrations
Kurt Manufacturing Company
5280 Main Street NE
Minneapolis, Minnesota

Sample ID / Collected Date	MDH Compliance Standards*		CAS Number	MW-3 Oct-18	MW-3 Jun-18	MW-3 Oct-17	MW-3 Jun-17	MW-3 Oct-16	MW-3 May-16	MW-3 Oct-15	MW-3 May-15	MW-3 Nov-14	MW-3 May-14	MW-3 Oct-13	MW-3 May-13	MW-3 Oct-12	MW-3 May-12	MW-3 Oct-11	MW-3 May-11
Acetone	4,000	HRL_{11}	67-64-1	**42.1** J	**31.1**	**10.6** J	20 U	<20.0	<20.0	<20.0	<20.0	**54.0**	<20.0	<20.0	<20.0	<25.0	<25.0	<25.0	<25.0
Allyl chloride	30	HRL_{94}	107-05-1	<5.00	<0.29	<1.0	<0.25	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Benzene	2	HRL_{09}	71-43-2	<1.00	<0.10	<0.34	<0.16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromobenzene	-	NCS	108-86-1	<1.00	<0.21	<0.16	<0.34	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromochloromethane	-	NCS	74-97-5	<5.00	<0.27	<0.38	<0.19	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromodichloromethane	6	HRL_{93}	75-27-4	<1.00	<0.22	<0.2	<0.068	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromoform	40	HRL_{93}	75-25-2	<1.00	<0.80	<1.0	<0.27	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Bromomethane	10	HRL_{93}	74-83-9	<5.00	<1.8	<1.5	<0.44	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
2-Butanone (MEK)	4,000	HRL_{94}	78-93-3	**6.69** J	**5.7**	<2.4	**1.9** J	<5.0	<5.0	<5.0	<5.0	**15.5**	**19.1**	<5.0	<5.0	<4.0	<4.0	<4.0	<4.0
n-Butylbenzene	-	NCS	104-51-8	<1.00	<0.24	<0.13	<0.16	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
sec-Butylbenzene	-	NCS	135-98-8	<1.00	<0.15	<0.12	<0.19	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
tert-Butylbenzene	-	NCS	98-06-6	<1.00	<0.15	<0.15	<0.22	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon Disulfide	700	HRL_{93}	75-15-0	NA	NA	<0.37	<0.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	1	HRL_{13}	56-23-5	<1.00	<0.19	<0.2	<0.20	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorobenzene	100	HRL_{93}	108-90-7	<1.00	<0.17	<0.14	<0.11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	-	NCS	75-00-3	<5.00	<0.49	<0.44	<0.34	<1.0	<1.0	<4.0	<1.0	<4.0	<1.0	<4.0	<4.0	<1.0	<1.0	<1.0	<1.0
Chloroform	30	HRL	67-66-3	<5.00	<0.45	<0.46	<0.21	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloromethane	-	NCS	74-87-3	<2.50	<0.16	<1.1	<0.25	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
2-Chlorotoluene	-	NCS	95-49-8	<1.00	<0.16	<0.2	<0.30	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4-Chlorotoluene	-	NCS	106-43-4	<1.00	<0.13	<0.13	<0.26	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dibromo-3-chloropropane	-	NCS	96-12-8	<5.00	<1.7	<0.0036	<0.0011	<10.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Dibromochloromethane	10	HRL_{93}	124-48-1	<1.00	<0.12	<0.13	<0.048	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane (EDB)	0.004	HRL_{93}	106-93-4	<1.00	<0.24	<0.0039	<0.0016	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dibromomethane	-	NCS	74-95-3	<1.00	<0.16	<0.5	<0.19	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
1,2-Dichlorobenzene	600	HRL_{93}	95-50-1	<1.00	<0.14	<0.21	<0.17	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3-Dichlorobenzene	-	NCS	541-73-1	<1.00	<0.16	<0.16	<0.12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dichlorobenzene	10	HRL_{94}	106-46-7	<1.00	<0.17	<0.1	<0.21	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dichlorodifluoromethane	700	HRL_{11}	75-71-8	<5.00	<0.23	<0.31	<0.23	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane (DCA)	80	RAA_{16}	75-34-3	<1.00	<0.17	<0.14	<0.17	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloroethane	1	HRL_{13}	107-06-2	<1.00	<0.22	<0.32	<0.17	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene (DCE)	200	HRL_{11}	75-35-4	<1.00	<0.16	<0.18	<0.28	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethylene (cis DCE)	6	HBV_{14}	156-59-2	<1.00	<0.15	**1.1**	**1.2**	**2.2**	**1.7**	<1.0	<1.0	<1.0	<1.0	**1.2**	**1.8**	**1.3**	**3.3**	**21.7**	**1.3**
trans-1,2-Dichloroethylene (trans DCE)	40	HRL_{13}	156-60-5	<1.00	<0.12	<0.21	<0.16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**1.1**	**1.3**	**2.5**	<4.0	<4.0
Dichlorofluoromethane	30	RAA_{15}	75-43-4	<5.00 J_4	<0.14	<0.38	<0.21	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloropropane	5	HRL_{94}	78-87-5	<1.00	<0.16	<0.62	<0.22	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
1,3-Dichloropropane	-	NCS	142-28-9	<1.00	<0.070	<0.13	<0.096	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2,2-Dichloropropane	-	NCS	594-20-7	<1.00	<0.17	<0.4	<0.13	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
1,1-Dichloropropene	-	NCS	563-58-6	<1.00	<0.20	<0.18	<0.23	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,3-Dichloropropene	-	NCS	10061-01-5	<1.00	<0.20	<0.12	<0.15	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
trans-1,3-Dichloropropene	-	NCS	10061-02-6	<1.00	<0.18	<0.14	<0.15	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Diethyl ether (Ethyl ether)	200	RAA_{16}	60-29-7	<1.00	<0.095	<1.3	<0.19	<4.0	<4.0	<4.0	<10.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
1,4-Dioxane	1	HRL_{13}	123-91-1	NA	NA	**1.2** J	**0.99** J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	50	HRL_{11}	100-41-4	<1.00	<0.14	<0.14	<0.15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Hexachloro-1,3-butadiene	1	HRL_{93}	87-68-3	<1.00	<0.31	<0.48	<0.18	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Hexanone	-	NCS	591-78-6	NA	NA	<2.5	<0.19		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene (Cumene)	300	HRL_{93}	98-82-8	<1.00	<0.18	<0.17	<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
p-Isopropyltoluene	-	NCS	99-87-6	<1.00	<0.15	<0.14	<0.19	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	5	HRL_{MCL}	75-09-2	<5.00	<0.98	<1.2	<0.29	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
4-Methyl-2-pentanone (MIBK)	300	HRL_{94}	108-10-1	<10.0	<0.42	<0.55	<0.43	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<4.0	<4.0	<4.0	<4.0
Methyl-tert-butyl ether	60	RAA_{13}	1634-04-4	<1.00	<0.16	<0.4	<0.15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Naphthalene	70	HRL_{13}	91-20-3	<5.00	<0.48	<0.42	<0.20	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
n-Propylbenzene	-	NCS	103-65-1	<1.00	<0.10	<0.15	<0.23	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Styrene	-	NCS	100-42-5	<1.00	<0.19	<0.14	<0.29	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1,2-Tetrachloroethane	70	HRL_{93}	630-20-6	<1.00	<0.20	<0.14	<0.064	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane	2	HRL_{94}	79-34-5	<1.00	<0.17	<0.19	<0.22	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethylene (PCE)	4	HBV_{14}	127-18-4	**0.78** J	**0.63** J	**5.7**	**7.3**	**11.6**	**12.8**	**10**	**4.2**	**4.7**	**2.6**	**20.5**	**29.9**	**38.3**	**69.4**	**264**	**187**
Tetrahydrofuran	600	HBV_{16}	109-99-9	<5.00	<2.2	<4.3	<1.5	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Toluene	200	HRL_{11}	108-88-3	<1.00	<0.083	<0.17	<0.14	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichlorobenzene	-	NCS	87-61-6	<1.00	<0.21	<0.14	<0.17	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	4	HRL_{13}	120-82-1	<1.00	<0.20	<0.18	<0.21	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane	9,000	HRL_{09}	71-55-6	<1.00	<0.14	<0.15	<0.17	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	3	HRL_{93}	79-00-5	<1.00	<0.18	<0.22	<0.15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethylene (TCE)	0.4	HRL_{15}	79-01-6	<1.00	<0.15	**1.9**	**2.4**	**4.0**	**3.9**	**2.9**	**1.4**	**1.1**	**0.64**	**13.8**	**24.2**	**29.4**	**58.4**	**79**	**39.3**
Trichlorofluoromethane	2,000	HRL_{93}	75-69-4	<5.00	<0.23	<0.13	<0.33	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichloropropane	0.003	HRL_{13}	96-18-4	<2.50	<0.26	<0.66	<0.28	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
1,1,2-Trichlorotrifluoroethane	200,000	HRL_{93}	76-13-1	<1.00	<0.22	<0.28	<0.32	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	100	RAA_{10}	95-63-6	<1.00	<0.20	<0.14	<0.18	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	100	HRL_{09}	108-67-8	<1.00	<0.12	<0.18	<0.27	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl chloride	0.2	HRL_{09}	75-01-4	<1.00	<0.092	<0.096	<0.069	<0.20	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Xylene (Total)	300	HRL_{11}	1330-20-7	<3.00	<0.31	<0.24	<0.32	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
m&p-Xylene	300	HRL_{11}	179601-23-1	NA	NA	<0.24	<0.11	NA	NA	NA	NA	NA	NA	NA	NA	<2.0	<2.0	<2.0	<2.0
o-Xylene	300	HRL_{11}	95-47-6	NA	NA	<0.17	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0
Total VOCs				**49.6**	**37.4**	**20.5**	**13.8**	**17.8**	**18.4**	**12.9**	**5.6**	**75.3**	**22.3**	**35.5**	**57.0**	**70.3**	**133.6**	**364.7**	**227.6**

* Subscripts either indicate the last two digits of the year the standard was developed or is based on a US EPA Maximum Contaminant Level (MCL)
VOCs: Volatile Organic Compounds
TAL: Total Analyte List
PAHs: Polycyclic Aromatic Hydrocarbons
HBV: Health Based Value
HRL: Health Risk Limit
RAA: Risk Assessment Advice
MDH: Minnesota Department of Health
NA: Not Analyzed
NCS: No MDH Compliance Standard
NS: Not Sampled
U: The analyte was not detected above the laboratory reporting limit or method detection limit

J: Estimated value, the value was between the Method Detection Limit and the lab reporting limit
J_{11} Estimated value, the method blank was >reporting limit; the sample was <10X the blank result, the data may be baised high
BOLD Parameter detected above laboratory reporting limit
BOLD Parameter detected above MDH Compliance Standards

Table 2A

Shallow Zone Quaternary Monitoring Well
VOC Concentrations
Kurt Manufacturing Company
5280 Main Street NE
Minneapolis, Minnesota

Sample ID Collected Date	MDH Compliance Standards*		CAS Number	MW-4 Oct-18		MW-4 Jun-18	MW-4 Oct-17	MW-4 Jun-17	MW-4 Oct-16	MW-4 May-16	MW-4 Oct-15	MW-4 May-15	MW-4 Nov-14	MW-4 May-14	MW-4 Oct-13	MW-4 May-13	MW-4 Oct-12	MW-4 May-12	MW-4 Oct-11	MW-4 May-11
Acetone	4,000	HRL_{11}	67-64-1	<50.0		NS	<8.8	20 U	<20.0	NS	<20.0	NS	<20.0	NS	<20.0	NS	<25.0	NS	<25.0	NS
Allyl chloride	30	HRL_{94}	107-05-1	<5.00		NS	<1.0	<0.25	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
Benzene	2	HRL_{09}	71-43-2	<1.00		NS	<0.34	<0.16	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Bromobenzene	-	NCS	108-86-1	<1.00		NS	<0.16	<0.34	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Bromochloromethane	-	NCS	74-97-5	<5.00		NS	<0.38	<0.19	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Bromodichloromethane	6	HRL_{93}	75-27-4	<1.00		NS	<0.2	<0.068	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Bromoform	40	HRL_{93}	75-25-2	<1.00		NS	<1.0	<0.27	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
Bromomethane	10	HRL_{93}	74-83-9	<5.00		NS	<1.5	<0.44	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
2-Butanone (MEK)	4,000	HRL_{94}	78-93-3	<10.0		NS	<2.4	<1.1	<5.0	NS	<5.0	NS	<5.0	NS	<5.0	NS	<4.0	NS	<4.0	NS
n-Butylbenzene	-	NCS	104-51-8	<1.00		NS	<0.13	<0.16	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
sec-Butylbenzene	-	NCS	135-98-8	<1.00		NS	<0.12	<0.19	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
tert-Butylbenzene	-	NCS	98-06-6	<1.00		NS	<0.15	<0.22	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Carbon Disulfide	700	HRL_{93}	75-15-0	NA		NS	<0.37	<0.30	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NA
Carbon tetrachloride	1	HRL_{13}	56-23-5	<1.00		NS	<0.2	<0.20	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Chlorobenzene	100	HRL_{93}	108-90-7	<1.00		NS	<0.14	<0.11	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Chloroethane	-	NCS	75-00-3	<5.00		NS	<0.44	<0.34	<1.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<1.0	NS	<1.0	NS
Chloroform	30	HRL	67-66-3	<5.00		NS	<0.46	<0.21	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Chloromethane	-	NCS	74-87-3	<2.50		NS	<1.1	<0.25	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
2-Chlorotoluene	-	NCS	95-49-8	<1.00		NS	<0.2	<0.30	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
4-Chlorotoluene	-	NCS	106-43-4	<1.00		NS	<0.13	<0.26	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2-Dibromo-3-chloropropane	-	NCS	96-12-8	<5.00		NS	<0.0036	<0.0011	<10.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
Dibromochloromethane	10	HRL_{93}	124-48-1	<1.00		NS	<0.13	<0.048	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2-Dibromoethane (EDB)	0.004	HRL_{93}	106-93-4	<1.00		NS	<0.0039	<0.0016	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Dibromomethane	-	NCS	74-95-3	<1.00		NS	<0.5	<0.19	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,2-Dichlorobenzene	600	HRL_{93}	95-50-1	<1.00		NS	<0.21	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,3-Dichlorobenzene	-	NCS	541-73-1	<1.00		NS	<0.16	<0.12	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,4-Dichlorobenzene	10	HRL_{94}	106-46-7	<1.00		NS	<0.1	<0.21	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Dichlorodifluoromethane	700	HRL_{11}	75-71-8	<5.00		NS	<0.31	<0.23	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1-Dichloroethane (DCA)	80	RAA_{16}	75-34-3	<1.00		NS	<0.14	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2-Dichloroethane	1	HRL_{13}	107-06-2	<1.00		NS	<0.32	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1-Dichloroethene (DCE)	200	HRL_{11}	75-35-4	<1.00		NS	<0.18	<0.28	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
cis-1,2-Dichloroethylene (cis DCE)	6	HBV_{14}	156-59-2	<1.00		NS	<0.2	<0.12	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
trans-1,2-Dichloroethylene (trans DCE)	40	HRL_{13}	156-60-5	<1.00		NS	<0.21	<0.16	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<4.0	NS
Dichlorofluoromethane	30	RAA_{15}	75-43-4	<5.00	J_4	NS	<0.38	<0.21	<1.0	NS	<1.0	NS	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2-Dichloropropane	5	HRL_{94}	78-87-5	<1.00		NS	<0.62	<0.22	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,3-Dichloropropane	-	NCS	142-28-9	<1.00		NS	<0.13	<0.096	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
2,2-Dichloropropane	-	NCS	594-20-7	<1.00		NS	<0.4	<0.13	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,1-Dichloropropene	-	NCS	563-58-6	<1.00		NS	<0.18	<0.23	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
cis-1,3-Dichloropropene	-	NCS	10061-01-5	<1.00		NS	<0.12	<0.15	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
trans-1,3-Dichloropropene	-	NCS	10061-02-6	<1.00		NS	<0.14	<0.15	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
Diethyl ether (Ethyl ether)	200	RAA_{16}	60-29-7	<1.00		NS	<1.3	<0.19	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,4-Dioxane	1	HRL_{13}	123-91-1	NA		NS	<0.36	<0.36	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NA
Ethylbenzene	50	HRL_{11}	100-41-4	<1.00		NS	<0.14	<0.15	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Hexachloro-1,3-butadiene	1	HRL_{93}	87-68-3	<1.00		NS	<0.48	<0.18	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<5.0	NS	<5.0	NS
2-Hexanone	-	NCS	591-78-6	NA		NS	<2.5	<0.19	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NA
Isopropylbenzene (Cumene)	300	HRL_{93}	98-82-8	<1.00		NS	<0.17	<0.25	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
p-Isopropyltoluene	-	NCS	99-87-6	<1.00		NS	<0.14	<0.19	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Methylene Chloride	5	HRL_{MCL}	75-09-2	<5.00		NS	<1.2	<0.29	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
4-Methyl-2-pentanone (MIBK)	300	HRL_{94}	108-10-1	<10.0		NS	<0.55	<0.43	<5.0	NS	<5.0	NS	<5.0	NS	<5.0	NS	<4.0	NS	<4.0	NS
Methyl-tert-butyl ether	60	RAA_{13}	1634-04-4	<1.00		NS	<0.4	<0.15	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Naphthalene	70	HRL_{13}	91-20-3	<5.00		NS	<0.42	<0.20	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
n-Propylbenzene	-	NCS	103-65-1	<1.00		NS	<0.15	<0.23	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Styrene	-	NCS	100-42-5	<1.00		NS	<0.14	<0.29	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1,1,2-Tetrachloroethane	70	HRL_{93}	630-20-6	<1.00		NS	<0.14	<0.064	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1,2,2-Tetrachloroethane	2	HRL_{94}	79-34-5	<1.00		NS	<0.19	<0.22	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Tetrachloroethylene (PCE)	4	HBV_{14}	127-18-4	<1.00		NS	<0.16	<0.25	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Tetrahydrofuran	600	HBV_{16}	109-99-9	<5.00		NS	<4.3	<1.5	<10.0	NS	<10.0	NS	<10.0	NS	<10.0	NS	<10.0	NS	<10.0	NS
Toluene	200	HRL_{11}	108-88-3	<1.00		NS	<0.17	<0.14	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2,3-Trichlorobenzene	-	NCS	87-61-6	<1.00		NS	<0.14	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2,4-Trichlorobenzene	4	HRL_{13}	120-82-1	<1.00		NS	<0.18	<0.21	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1,1-Trichloroethane	9,000	HRL_{09}	71-55-6	<1.00		NS	<0.15	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1,2-Trichloroethane	3	HRL_{93}	79-00-5	<1.00		NS	<0.22	<0.15	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Trichloroethylene (TCE)	0.4	HRL_{15}	79-01-6	<1.00		NS	**0.73**	**0.85**	**0.81**	NS	**0.68**	NS	**0.43**	NS	**1.2**	NS	<1.0	NS	<1.0	NS
Trichlorofluoromethane	2,000	HRL_{93}	75-69-4	<5.00		NS	<0.13	<0.33	<1.0	NS	<1.0	NS	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2,3-Trichloropropane	0.003	HRL_{13}	96-18-4	<2.50		NS	<0.66	<0.28	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,1,2-Trichlorotrifluoroethane	200,000	HRL_{93}	76-13-1	<1.00		NS	<0.28	<0.32	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2,4-Trimethylbenzene	100	RAA_{10}	95-63-6	<1.00		NS	<0.14	<0.18	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,3,5-Trimethylbenzene	100	HRL_{09}	108-67-8	<1.00		NS	<0.18	<0.27	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Vinyl chloride	0.2	HRL_{09}	75-01-4	<1.00		NS	<0.096	<0.069	<0.20	NS	<0.40	NS	<0.40	NS	<0.40	NS	<0.40	NS	<0.40	NS
Xylene (Total)	300	HRL_{11}	1330-20-7	<3.00		NS	<0.24	<0.32	<3.0	NS	<3.0	NS	<3.0	NS	<3.0	NS	<3.0	NS	<3.0	NS
m&p-Xylene	300	HRL_{11}	179601-23-1	NA		NS	<0.24	<0.11	NA	NS	NA	NS	NA	NS	NA	NS	<2.0	NS	<2.0	NS
o-Xylene	300	HRL_{11}	95-47-6	NA		NS	<0.17	<0.20	NA	NS	NA	NS	NA	NS	NA	NS	<1.0	NS	<1.0	NS
Total VOCs				**0.0**		**0.0**	**0.7**	**0.9**	**0.8**	**0.0**	**0.7**	**0.0**	**0.4**	**0.0**	**1.2**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

* Subscripts either indicate the last two digits of the year the standard was developed or is based on a US EPA Maximum Contaminant Level (MCL)
VOCs: Volatile Organic Compounds
TAL: Total Analyte List
PAHs: Polycyclic Aromatic Hydrocarbons
HBV: Health Based Value
HRL: Health Risk Limit
RAA: Risk Assessment Advice
MDH: Minnesota Department of Health
NA: Not Analyzed
NCS: No MDH Compliance Standard
NS: Not Sampled
U: The analyte was not detected above the laboratory reporting limit or method detection limit

J: Estimated value, the value was between the Method Detection Limit and the lab reporting limit
J_{11}: Estimated value, the method blank was >reporting limit; the sample was <10X the blank result, the data may be baised high
BOLD Parameter detected above laboratory reporting limit
BOLD Parameter detected above MDH Compliance Standards

Table 2A

Shallow Zone Quaternary Monitoring Well
VOC Concentrations
Kurt Manufacturing Company
5280 Main Street NE
Minneapolis, Minnesota

Sample ID Collected Date	MDH Compliance Standards*		CAS Number	MW-5 Oct-18	MW-5 Jun-18	MW-5 Oct-17	MW-5 Jun-17	MW-5 Oct-16	MW-5 May-16	MW-5 Oct-15	MW-5 May-15	MW-5 Nov-14	MW-5 May-14	MW-5 Oct-13	MW-5 May-13	MW-5 Oct-12	MW-5 May-12	MW-5 Oct-11	MW-5 May-11
Acetone	4,000	HRL_{11}	67-64-1	<50.0	NS	<8.8	**73.6**	<20.0	NS	<20.0	NS	<20.0	NS	<20.0	NS	<25.0	NS	<25.0	NS
Allyl chloride	30	HRL_{94}	107-05-1	<5.00	NS	<1.0	<0.25	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
Benzene	2	HRL_{09}	71-43-2	<1.00	NS	<0.34	<0.16	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Bromobenzene	-	NCS	108-86-1	<1.00	NS	<0.16	<0.34	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Bromochloromethane	-	NCS	74-97-5	<5.00	NS	<0.38	<0.19	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Bromodichloromethane	6	HRL_{93}	75-27-4	<1.00	NS	<0.20	<0.068	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Bromoform	40	HRL_{93}	75-25-2	<1.00	NS	<1.0	<0.27	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
Bromomethane	10	HRL_{93}	74-83-9	<5.00	NS	<1.5	<0.44	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
2-Butanone (MEK)	4,000	HRL_{94}	78-93-3	<10.0	NS	<2.4	<1.1	<5.0	NS	<5.0	NS	<5.0	NS	<5.0	NS	<4.0	NS	<4.0	NS
n-Butylbenzene	-	NCS	104-51-8	<1.00	NS	<0.13	<0.16	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
sec-Butylbenzene	-	NCS	135-98-8	<1.00	NS	<0.12	<0.19	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
tert-Butylbenzene	-	NCS	98-06-6	<1.00	NS	<0.15	<0.22	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Carbon Disulfide	700	HRL_{93}	75-15-0	NA	NS	<0.37	<0.30	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NA
Carbon tetrachloride	1	HRL_{13}	56-23-5	<1.00	NS	<0.20	<0.20	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Chlorobenzene	100	HRL_{93}	108-90-7	<1.00	NS	<0.14	<0.11	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Chloroethane	-	NCS	75-00-3	<5.00	NS	<0.44	<0.34	<1.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<1.0	NS	<1.0	NS
Chloroform	30	HRL	67-66-3	<5.00	NS	<0.46	<0.21	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Chloromethane	-	NCS	74-87-3	<2.50	NS	<1.1	<0.25	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
2-Chlorotoluene	-	NCS	95-49-8	<1.00	NS	<0.20	<0.30	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
4-Chlorotoluene	-	NCS	106-43-4	<1.00	NS	<0.13	<0.26	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2-Dibromo-3-chloropropane	-	NCS	96-12-8	<5.00	NS	<0.0036	<0.0011	<10.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
Dibromochloromethane	10	HRL_{93}	124-48-1	<1.00	NS	<0.13	<0.048	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2-Dibromoethane (EDB)	0.004	HRL_{93}	106-93-4	<1.00	NS	<0.0039	<0.0016	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Dibromomethane	-	NCS	74-95-3	<1.00	NS	<0.50	<0.19	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,2-Dichlorobenzene	600	HRL_{93}	95-50-1	<1.00	NS	<0.21	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,3-Dichlorobenzene	-	NCS	541-73-1	<1.00	NS	<0.16	<0.12	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,4-Dichlorobenzene	10	HRL_{94}	106-46-7	<1.00	NS	<0.10	<0.21	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Dichlorodifluoromethane	700	HRL_{11}	75-71-8	<5.00	NS	<0.31	<0.23	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1-Dichloroethane (DCA)	80	RAA_{16}	75-34-3	**0.259** J	NS	<0.14	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2-Dichloroethane	1	HRL_{13}	107-06-2	<1.00	NS	<0.32	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1-Dichloroethene (DCE)	200	HRL_{11}	75-35-4	<1.00	NS	<0.18	<0.28	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
cis-1,2-Dichloroethylene (cis DCE)	6	HBV_{14}	156-59-2	**3.61**	NS	**1.8**	**3.5**	**3.6**	NS	**8.6**	NS	**10.9**	NS	**7.7**	NS	**5.1**	NS	**7.0**	NS
trans-1,2-Dichloroethylene (trans DCE)	40	HRL_{13}	156-60-5	**2.67**	NS	**2.0**	**2.8**	**2.8**	NS	**2.1**	NS	**2.3**	NS	**2.8**	NS	**1.9**	NS	<4.0	NS
Dichlorofluoromethane	30	RAA_{15}	75-43-4	<5.00 J_4	NS	<0.38	<0.21	<1.0	NS	<1.0	NS	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2-Dichloropropane	5	HRL_{94}	78-87-5	<1.00	NS	<0.62	<0.22	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,3-Dichloropropane	-	NCS	142-28-9	<1.00	NS	<0.13	<0.096	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
2,2-Dichloropropane	-	NCS	594-20-7	<1.00	NS	<0.40	<0.13	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,1-Dichloropropene	-	NCS	563-58-6	<1.00	NS	<0.18	<0.23	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
cis-1,3-Dichloropropene	-	NCS	10061-01-5	<1.00	NS	<0.12	<0.15	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
trans-1,3-Dichloropropene	-	NCS	10061-02-6	<1.00	NS	<0.14	<0.15	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
Diethyl ether (Ethyl ether)	200	RAA_{16}	60-29-7	<1.00	NS	<1.3	<0.19	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,4-Dioxane	1	HRL_{13}	123-91-1	NA	NS	**0.55** J	**0.44** J	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NA
Ethylbenzene	50	HRL_{11}	100-41-4	<1.00	NS	<0.14	<0.15	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Hexachloro-1,3-butadiene	1	HRL_{93}	87-68-3	<1.00	NS	<0.48	<0.18	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<5.0	NS	<5.0	NS
2-Hexanone	-	NCS	591-78-6	NA	NS	<2.5	<0.19	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NA
Isopropylbenzene (Cumene)	300	HRL_{93}	98-82-8	<1.00	NS	<0.17	<0.25	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
p-Isopropyltoluene	-	NCS	99-87-6	<1.00	NS	<0.14	<0.19	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Methylene Chloride	5	HRL_{MCL}	75-09-2	<5.00	NS	<1.2	<0.29	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
4-Methyl-2-pentanone (MIBK)	300	HRL_{94}	108-10-1	<10.0	NS	<0.55	<0.43	<5.0	NS	<5.0	NS	<5.0	NS	<5.0	NS	<4.0	NS	<4.0	NS
Methyl-tert-butyl ether	60	RAA_{13}	1634-04-4	<1.00	NS	<0.40	<0.15	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Naphthalene	70	HRL_{13}	91-20-3	<5.00	NS	<0.42	<0.20	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
n-Propylbenzene	-	NCS	103-65-1	<1.00	NS	<0.15	<0.23	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Styrene	-	NCS	100-42-5	<1.00	NS	<0.14	<0.29	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1,1,2-Tetrachloroethane	70	HRL_{93}	630-20-6	<1.00	NS	<0.14	<0.064	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1,2,2-Tetrachloroethane	2	HRL_{94}	79-34-5	<1.00	NS	<0.19	<0.22	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Tetrachloroethylene (PCE)	4	HBV_{14}	127-18-4	**7.6**	NS	**1.4**	**3.4**	**12.1**	NS	**2.4**	NS	**4.5**	NS	**1.7**	NS	**3.0**	NS	**2.6**	NS
Tetrahydrofuran	600	HBV_{16}	109-99-9	<5.00	NS	<4.3	<1.5	<10.0	NS	<10.0	NS	<10.0	NS	<10.0	NS	<10.0	NS	<10.0	NS
Toluene	200	HRL_{11}	108-88-3	<1.00	NS	<0.17	<0.14	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2,3-Trichlorobenzene	-	NCS	87-61-6	<1.00	NS	<0.14	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2,4-Trichlorobenzene	4	HRL_{13}	120-82-1	<1.00	NS	<0.18	<0.21	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1,1-Trichloroethane	9,000	HRL_{09}	71-55-6	<1.00	NS	<0.15	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1,2-Trichloroethane	3	HRL_{93}	79-00-5	<1.00	NS	<0.22	<0.15	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Trichloroethylene (TCE)	0.4	HRL_{15}	79-01-6	**14.1**	NS	**16.6**	**20.1**	**16.9**	NS	**23.8**	NS	**23.4**	NS	**18.9**	NS	**15.4**	NS	**12.1**	NS
Trichlorofluoromethane	2,000	HRL_{93}	75-69-4	<5.00	NS	<0.13	<0.33	<1.0	NS	<1.0	NS	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2,3-Trichloropropane	0.003	HRL_{13}	96-18-4	<2.50	NS	<0.66	<0.28	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,1,2-Trichlorotrifluoroethane	200,000	HRL_{93}	76-13-1	<1.00	NS	<0.28	<0.32	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2,4-Trimethylbenzene	100	RAA_{10}	95-63-6	<1.00	NS	<0.14	<0.18	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,3,5-Trimethylbenzene	100	HRL_{09}	108-67-8	<1.00	NS	<0.18	<0.27	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Vinyl chloride	0.2	HRL_{09}	75-01-4	<1.00	NS	**0.41**	**0.12** J	<0.20	NS	<0.40	NS	<0.40	NS	<0.40	NS	<0.40	NS	<0.40	NS
Xylene (Total)	300	HRL_{11}	1330-20-7	<3.00	NS	<0.24	<0.32	<3.0	NS	<3.0	NS	<3.0	NS	<3.0	NS	<3.0	NS	<3.0	NS
m&p-Xylene	300	HRL_{11}	179601-23-1	NA	NS	<0.24	<0.11	NA	NS	NA	NS	NA	NS	NA	NS	<2.0	NS	<2.0	NS
o-Xylene	300	HRL_{11}	95-47-6	NA	NS	<0.17	<0.20	NA	NS	NA	NS	NA	NS	NA	NS	<1.0	NS	<1.0	NS
Total VOCs				**28.2**	**0.0**	**22.8**	**104.0**	**35.4**	**0.0**	**36.9**	**0.0**	**41.1**	**0.0**	**31.1**	**0.0**	**25.4**	**0.0**	**21.7**	**0.0**

* Subscripts either indicate the last two digits of the year the standard was developed or is based on a US EPA Maximum Contaminant Level (MCL)
VOCs: Volatile Organic Compounds
TAL: Total Analyte List
PAHs: Polycyclic Aromatic Hydrocarbons
HBV: Health Based Value
HRL: Health Risk Limit
RAA: Risk Assessment Advice
MDH: Minnesota Department of Health
NA: Not Analyzed
NCS: No MDH Compliance Standard
NS: Not Sampled
U: The analyte was not detected above the laboratory reporting limit or method detection limit

J: Estimated value, the value was between the Method Detection Limit and the lab reporting limit
J_{11} Estimated value, the method blank was >reporting limit; the sample was <10X the blank result, the data may be baised high
BOLD Parameter detected above laboratory reporting limit
BOLD Parameter detected above MDH Compliance Standards

Table 2A

Shallow Zone Quaternary Monitoring Well
VOC Concentrations
Kurt Manufacturing Company
5280 Main Street NE
Minneapolis, Minnesota

Sample ID Collected Date	MDH Compliance Standards*		CAS Number	MW-6 Oct-18	MW-6 Jun-18	MW-6 Oct-17	MW-6 Jun-17	MW-6 Oct-16	MW-6 May-16	MW-6 Oct-15	MW-6 May-15	MW-6 Nov-14	MW-6 May-14	MW-6 Oct-13	MW-6 May-13	MW-6 Oct-12	MW-6 May-12	MW-6 Oct-11	MW-6 May-11
Acetone	4,000	HRL_{11}	67-64-1	<50.0	<9.2	<8.8	**82.5**	<20.0	<20.0	<20.0	<200	<20.0	<20.0	<200	<100	<250	<250	<125	<50.0
Allyl chloride	30	HRL_{94}	107-05-1	<5.00	<0.29	<1.0	<0.25	<4.0	<4.0	<4.0	<40.0	<4.0	<4.0	<40.0	<20.0	<40.0	<40.0	<20.0	<8.0
Benzene	2	HRL_{09}	71-43-2	<1.00	<0.10	<0.34	<0.16	<1.0	<1.0	<1.0	<10.0	<1.0	<1.0	<10.0	<5.0	<10.0	<10.0	<5.0	<2.0
Bromobenzene	-	NCS	108-86-1	<1.00	<0.21	<0.16	<0.34	<1.0	<1.0	<1.0	<10.0	<1.0	<1.0	<10.0	<5.0	<10.0	<10.0	<5.0	<2.0
Bromochloromethane	-	NCS	74-97-5	<5.00	<0.27	<0.38	<0.19	<1.0	<1.0	<1.0	<10.0	<1.0	<1.0	<10.0	<5.0	<10.0	<10.0	<5.0	<2.0
Bromodichloromethane	6	HRL_{93}	75-27-4	<1.00	<0.22	<0.2	<0.068	<1.0	<1.0	<1.0	<10.0	<1.0	<1.0	<10.0	<5.0	<10.0	<10.0	<5.0	<2.0
Bromoform	40	HRL_{93}	75-25-2	<1.00	<0.80	<1.0	<0.27	<4.0	<4.0	<4.0	<40.0	<4.0	<4.0	<40.0	<20.0	<40.0	<40.0	<20.0	<8.0
Bromomethane	10	HRL_{93}	74-83-9	<5.00	<1.8	<1.5	<0.44	<4.0	<4.0	<4.0	<40.0	<4.0	<4.0	<40.0	<20.0	<40.0	<40.0	<20.0	<8.0
2-Butanone (MEK)	4,000	HRL_{94}	78-93-3	<10.0	<0.99	<2.4	<1.1	<5.0	<5.0	<5.0	<50.0	<5.0	<5.0	<50.0	<25.0	<40.0	<40.0	<20.0	<8.0
n-Butylbenzene	-	NCS	104-51-8	<1.00	<0.24	<0.13	<0.16	<4.0	<1.0	<1.0	<10.0	<1.0	<1.0	<10.0	<5.0	<10.0	<10.0	<5.0	<2.0
sec-Butylbenzene	-	NCS	135-98-8	<1.00	<0.15	<0.12	<0.19	<4.0	<1.0	<1.0	<10.0	<1.0	<1.0	<10.0	<5.0	<10.0	<10.0	<5.0	<2.0
tert-Butylbenzene	-	NCS	98-06-6	<1.00	<0.15	<0.15	<0.22	<1.0	<1.0	<1.0	<10.0	<1.0	<1.0	<10.0	<5.0	<10.0	<10.0	<5.0	<2.0
Carbon Disulfide	700	HRL_{93}	75-15-0	NA	NA	<0.37	<0.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	1	HRL_{13}	56-23-5	<1.00	<0.19	<0.2	<0.20	<4.0	<1.0	<1.0	<10.0	<1.0	<1.0	<10.0	<5.0	<10.0	<10.0	<5.0	<2.0
Chlorobenzene	100	HRL_{93}	108-90-7	<1.00	<0.17	<0.14	<0.11	<1.0	<1.0	<1.0	<10.0	<1.0	<1.0	<10.0	<5.0	<10.0	<10.0	<5.0	<2.0
Chloroethane	-	NCS	75-00-3	<5.00	<0.49	<0.44	<0.34	<1.0	<1.0	<4.0	<10.0	<4.0	<1.0	<40.0	<20.0	<10.0	<10.0	<5.0	<2.0
Chloroform	30	HRL	67-66-3	<5.00	<0.45	<0.46	<0.21	<1.0	<4.0	<1.0	<10.0	<1.0	<1.0	<10.0	<5.0	<10.0	<10.0	<5.0	<2.0
Chloromethane	-	NCS	74-87-3	<2.50	<0.16	<1.1	<0.25	<4.0	<4.0	<4.0	<40.0	<4.0	<4.0	<40.0	<20.0	<40.0	<40.0	<20.0	<8.0
2-Chlorotoluene	-	NCS	95-49-8	<1.00	<0.16	<0.2	<0.30	<1.0	<1.0	<1.0	<10.0	<1.0	<1.0	<10.0	<5.0	<10.0	<10.0	<5.0	<2.0
4-Chlorotoluene	-	NCS	106-43-4	<1.00	<0.13	<0.13	<0.26	<1.0	<1.0	<1.0	<10.0	<1.0	<1.0	<10.0	<5.0	<10.0	<10.0	<5.0	<2.0
1,2-Dibromo-3-chloropropane	-	NCS	96-12-8	<5.00	<1.7	<0.0036	<0.0011	<10.0	<4.0	<4.0	<40.0	<4.0	<4.0	<40.0	<20.0	<40.0	<40.0	<20.0	<8.0
Dibromochloromethane	10	HRL_{93}	124-48-1	<1.00	<0.12	<0.13	<0.048	<4.0	<1.0	<1.0	<10.0	<1.0	<1.0	<10.0	<5.0	<10.0	<10.0	<5.0	<2.0
1,2-Dibromoethane (EDB)	0.004	HRL_{93}	106-93-4	<1.00	<0.24	<0.0039	<0.0016	<1.0	<1.0	<1.0	<10.0	<1.0	<1.0	<10.0	<5.0	<10.0	<10.0	<5.0	<2.0
Dibromomethane	-	NCS	74-95-3	<1.00	<0.16	<0.5	<0.19	<4.0	<4.0	<4.0	<40.0	<4.0	<4.0	<40.0	<20.0	<40.0	<40.0	<20.0	<8.0
1,2-Dichlorobenzene	600	HRL_{93}	95-50-1	<1.00	<0.14	<0.21	<0.17	<1.0	<1.0	<1.0	<10.0	<1.0	<1.0	<10.0	<5.0	<10.0	<10.0	<5.0	<2.0
1,3-Dichlorobenzene	-	NCS	541-73-1	<1.00	<0.16	<0.16	<0.12	<1.0	<1.0	<1.0	<10.0	<1.0	<1.0	<10.0	<5.0	<10.0	<10.0	<5.0	<2.0
1,4-Dichlorobenzene	10	HRL_{94}	106-46-7	<1.00	<0.17	<0.1	<0.21	<1.0	<1.0	<1.0	<10.0	<1.0	<1.0	<10.0	<5.0	<10.0	<10.0	<5.0	<2.0
Dichlorodifluoromethane	700	HRL_{11}	75-71-8	<5.00	<0.23	<0.31	<0.23	<1.0	<1.0	<1.0	<10.0	<1.0	<1.0	<10.0	<5.0	<10.0	<10.0	<5.0	<2.0
1,1-Dichloroethane (DCA)	80	RAA_{16}	75-34-3	<1.00	<0.17	<0.14	<0.17	<1.0	<1.0	<1.0	<10.0	<1.0	<1.0	<10.0	<5.0	<10.0	<10.0	<5.0	<2.0
1,2-Dichloroethane	1	HRL_{13}	107-06-2	<1.00	<0.22	<0.32	<0.17	<1.0	<1.0	<1.0	<10.0	<1.0	<1.0	<10.0	<5.0	<10.0	<10.0	<5.0	<2.0
1,1-Dichloroethene (DCE)	200	HRL_{11}	75-35-4	<1.00	<0.16	<0.18	<0.28	<1.0	<1.0	<1.0	<10.0	<1.0	<1.0	<10.0	<5.0	<10.0	<10.0	<5.0	<2.0
cis-1,2-Dichloroethylene (cis DCE)	6	HBV_{14}	156-59-2	<1.00	<0.15	<0.2	<0.12	<1.0	<1.0	<1.0	<10.0	<1.0	<1.0	<10.0	<5.0	<10.0	<10.0	<5.0	<2.0
trans-1,2-Dichloroethylene (trans DCE)	40	HRL_{13}	156-60-5	<1.00	<0.12	<0.21	<0.16	<1.0	<1.0	<1.0	<10.0	<1.0	<1.0	<10.0	<5.0	<10.0	<10.0	<20.0	<8.0
Dichlorofluoromethane	30	RAA_{15}	75-43-4	<5.00	J_4 <0.14	<0.38	<0.21	<1.0	<1.0	<1.0	<10.0	<4.0	<1.0	<10.0	<5.0	<10.0	<10.0	<5.0	<2.0
1,2-Dichloropropane	5	HRL_{94}	78-87-5	<1.00	<0.16	<0.62	<0.22	<4.0	<4.0	<4.0	<40.0	<4.0	<4.0	<40.0	<20.0	<40.0	<40.0	<20.0	<8.0
1,3-Dichloropropane	-	NCS	142-28-9	<1.00	<0.070	<0.13	<0.096	<1.0	<1.0	<1.0	<10.0	<1.0	<1.0	<10.0	<5.0	<10.0	<10.0	<5.0	<2.0
2,2-Dichloropropane	-	NCS	594-20-7	<1.00	<0.17	<0.4	<0.13	<4.0	<4.0	<4.0	<40.0	<4.0	<4.0	<40.0	<20.0	<40.0	<40.0	<20.0	<8.0
1,1-Dichloropropene	-	NCS	563-58-6	<1.00	<0.20	<0.18	<0.23	<1.0	<1.0	<1.0	<10.0	<1.0	<1.0	<10.0	<5.0	<10.0	<10.0	<5.0	<2.0
cis-1,3-Dichloropropene	-	NCS	10061-01-5	<1.00	<0.20	<0.12	<0.15	<4.0	<4.0	<4.0	<40.0	<4.0	<4.0	<40.0	<20.0	<40.0	<40.0	<20.0	<8.0
trans-1,3-Dichloropropene	-	NCS	10061-02-6	<1.00	<0.18	<0.14	<0.15	<4.0	<4.0	<4.0	<40.0	<4.0	<4.0	<40.0	<20.0	<40.0	<40.0	<20.0	<8.0
Diethyl ether (Ethyl ether)	200	RAA_{16}	60-29-7	<1.00	<0.095	<1.3	<0.19	<4.0	<4.0	<4.0	<100	<4.0	<4.0	<40.0	<20.0	<40.0	<40.0	<20.0	<8.0
1,4-Dioxane	1	HRL_{13}	123-91-1	NA	NA	<0.36	<0.36	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	50	HRL_{11}	100-41-4	<1.00	<0.14	<0.14	<0.15	<1.0	<1.0	<1.0	<10.0	<1.0	<1.0	<40.0	<5.0	<10.0	<10.0	<5.0	<2.0
Hexachloro-1,3-butadiene	1	HRL_{93}	87-68-3	<1.00	<0.31	<0.48	<0.18	<4.0	<1.0	<1.0	<10.0	<1.0	<1.0	<50.0	<25.0	<50.0	<50.0	<25.0	<10.0
2-Hexanone	-	NCS	591-78-6	NA	NA	<2.5	<0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene (Cumene)	300	HRL_{93}	98-82-8	<1.00	<0.18	<0.17	<0.25	<1.0	<1.0	<1.0	<10.0	<1.0	<1.0	<10.0	<5.0	<10.0	<10.0	<5.0	<2.0
p-Isopropyltoluene	-	NCS	99-87-6	<1.00	<0.15	<0.14	<0.19	<4.0	<1.0	<1.0	<10.0	<1.0	<1.0	<10.0	<5.0	<10.0	<10.0	<5.0	<2.0
Methylene Chloride	5	HRL_{MCL}	75-09-2	<5.00	<0.98	<1.2	<0.29	<4.0	<4.0	<4.0	<40.0	<4.0	<4.0	<40.0	<20.0	<40.0	<40.0	<50.0	**18.9**
4-Methyl-2-pentanone (MIBK)	300	HRL_{94}	108-10-1	<10.0	<0.42	<0.55	<0.43	<5.0	<5.0	<5.0	<50.0	<5.0	<5.0	<50.0	<25.0	<40.0	<40.0	<20.0	<8.0
Methyl-tert-butyl ether	60	RAA_{13}	1634-04-4	<1.00	<0.16	<0.4	<0.15	<1.0	<1.0	<1.0	<10.0	<1.0	<1.0	<10.0	<5.0	<10.0	<10.0	<5.0	<2.0
Naphthalene	70	HRL_{13}	91-20-3	<5.00	<0.48	<0.42	<0.20	<4.0	<4.0	<4.0	<40.0	<4.0	<4.0	<40.0	<20.0	<40.0	<40.0	<20.0	<8.0
n-Propylbenzene	-	NCS	103-65-1	<1.00	<0.10	<0.15	<0.23	<1.0	<1.0	<1.0	<10.0	<1.0	<1.0	<10.0	<5.0	<10.0	<10.0	<5.0	<2.0
Styrene	-	NCS	100-42-5	<1.00	<0.19	<0.14	<0.29	<1.0	<1.0	<1.0	<10.0	<1.0	<1.0	<10.0	<5.0	<10.0	<10.0	<5.0	<2.0
1,1,1,2-Tetrachloroethane	70	HRL_{93}	630-20-6	<1.00	<0.20	<0.14	<0.064	<4.0	<1.0	<1.0	<10.0	<1.0	<1.0	<10.0	<5.0	<10.0	<10.0	<5.0	<2.0
1,1,2,2-Tetrachloroethane	2	HRL_{94}	79-34-5	<1.00	<0.17	<0.19	<0.22	<1.0	<1.0	<1.0	<10.0	<1.0	<1.0	<10.0	<5.0	<10.0	<10.0	<5.0	<2.0
Tetrachloroethylene (PCE)	4	HBV_{14}	127-18-4	**108**	**236**	**73.8**	**168**	**31.8**	**383**	**60.3**	**3000**	**69.7**	**51.8**	**895**	**561**	**2820**	**1510**	**887**	**282**
Tetrahydrofuran	600	HBV_{16}	109-99-9	<5.00	<2.2	<4.3	<1.5	<10.0	<10.0	<10.0	<100	<10.0	<10.0	<100	<50.0	<100	<100	<50.0	<20.0
Toluene	200	HRL_{11}	108-88-3	<1.00	<0.083	<0.17	<0.14	<1.0	<1.0	<1.0	<10.0	<1.0	<1.0	<10.0	<5.0	<10.0	<10.0	<5.0	<2.0
1,2,3-Trichlorobenzene	-	NCS	87-61-6	<1.00	<0.21	<0.14	<0.17	<1.0	<1.0	<1.0	<10.0	<1.0	<1.0	<10.0	<5.0	<10.0	<10.0	<5.0	<2.0
1,2,4-Trichlorobenzene	4	HRL_{13}	120-82-1	<1.00	<0.20	<0.18	<0.21	<1.0	<1.0	<1.0	<10.0	<1.0	<1.0	<10.0	<5.0	<10.0	<10.0	<5.0	<2.0
1,1,1-Trichloroethane	9,000	HRL_{09}	71-55-6	<1.00	<0.14	<0.15	<0.17	<1.0	<1.0	<1.0	<10.0	<1.0	<1.0	<10.0	<5.0	<10.0	<10.0	<5.0	<2.0
1,1,2-Trichloroethane	3	HRL_{93}	79-00-5	<1.00	<0.18	<0.22	<0.15	<1.0	<1.0	<1.0	<10.0	<1.0	<1.0	<10.0	<5.0	<10.0	<10.0	<5.0	<2.0
Trichloroethylene (TCE)	0.4	HRL_{15}	79-01-6	**1.31**	**2.1**	**0.39** J	**1.3**	<0.40	**5.4**	<0.40	**26.9**	<0.40	<0.40	**13.2**	<5.0	**28.7**	**10.3**	**6.6**	<2.0
Trichlorofluoromethane	2,000	HRL_{93}	75-69-4	<5.00	<0.23	<0.13	<0.33	<1.0	<1.0	<1.0	<10.0	<4.0	<1.0	<10.0	<5.0	<10.0	<10.0	<5.0	<2.0
1,2,3-Trichloropropane	0.003	HRL_{13}	96-18-4	<2.50	<0.26	<0.66	<0.28	<4.0	<4.0	<4.0	<40.0	<4.0	<4.0	<40.0	<20.0	<40.0	<40.0	<20.0	<8.0
1,1,2-Trichlorotrifluoroethane	200,000	HRL_{93}	76-13-1	<1.00	<0.22	<0.28	<0.32	<1.0	<1.0	<1.0	<10.0	<1.0	<1.0	<10.0	<5.0	<10.0	<10.0	<5.0	<2.0
1,2,4-Trimethylbenzene	100	RAA_{10}	95-63-6	<1.00	<0.20	<0.14	<0.18	<1.0	<1.0	<1.0	<10.0	<1.0	<1.0	<10.0	<5.0	<10.0	<10.0	<5.0	<2.0
1,3,5-Trimethylbenzene	100	HRL_{09}	108-67-8	<1.00	<0.12	<0.18	<0.27	<1.0	<1.0	<1.0	<10.0	<1.0	<1.0	<10.0	<5.0	<10.0	<10.0	<5.0	<2.0
Vinyl chloride	0.2	HRL_{09}	75-01-4	<1.00	<0.092	<0.096	<0.069	<0.20	<0.40	<0.40	<4.0	<0.40	<0.40	<4.0	<2.0	<4.0	<4.0	<2.0	<0.80
Xylene (Total)	300	HRL_{11}	1330-20-7	<3.00	<0.31	<0.24	<0.32	<3.0	<3.0	<3.0	<30.0	<3.0	<3.0	<30.0	<15.0	<30.0	<30.0	<15.0	<6.0
m&p-Xylene	300	HRL_{11}	179601-23-1	NA	NA	<0.24	<0.11	NA	NA	NA	NA	NA	NA	NA	NA	<20.0	<20.0	<10.0	<4.0
o-Xylene	300	HRL_{11}	95-47-6	NA	NA	<0.17	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	<10.0	<10.0	<5.0	<2.0
Total VOCs				**109.3**	**238.1**	**74.2**	**251.8**	**31.8**	**388.4**	**60.3**	**3026.9**	**69.7**	**51.8**	**908.2**	**561.0**	**2848.7**	**1520.3**	**893.6**	**300.9**

* Subscripts either indicate the last two digits of the year the standard was developed or is based on a US EPA Maximum Contaminant Level (MCL)
VOCs: Volatile Organic Compounds
TAL: Total Analyte List
PAHs: Polycyclic Aromatic Hydrocarbons
HBV: Health Based Value
HRL: Health Risk Limit
RAA: Risk Assessment Advice
MDH: Minnesota Department of Health
NA: Not Analyzed
NCS: No MDH Compliance Standard
NS: Not Sampled
U: The analyte was not detected above the laboratory reporting limit or method detection limit

J: Estimated value, the value was between the Method Detection Limit and the lab reporting limit
J_{11} Estimated value, the method blank was >reporting limit; the sample was <10X the blank result, the data may be baised high
BOLD Parameter detected above laboratory reporting limit
BOLD Parameter detected above MDH Compliance Standards

Table 2A

Shallow Zone Quaternary Monitoring Well
VOC Concentrations
Kurt Manufacturing Company
5280 Main Street NE
Minneapolis, Minnesota

Sample ID Collected Date	MDH Compliance Standards*		CAS Number	MW-10 Oct-18	MW-10 Jun-18	MW-10 Oct-17	MW-10 Jun-17	MW-10 Oct-16	MW-10 May-16	MW-10 Oct-15	MW-10 May-15	MW-10 Nov-14	MW-10 May-14	MW-10 Oct-13	MW-10 May-13	MW-10 Oct-12	MW-10 May-12	MW-10 Oct-11	MW-10 May-11
Acetone	4,000	HRL_{11}	67-64-1	<50.0	NS	<8.8	**53.5**	J_{11} <20.0	NS	<20.0	NS	<20.0	NS	<20.0	NS	<25.0	NS	<25.0	NS
Allyl chloride	30	HRL_{94}	107-05-1	<5.00	NS	<1.0	**3.7**	J <4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
Benzene	2	HRL_{09}	71-43-2	<1.00	NS	<0.34	<0.16	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Bromobenzene	-	NCS	108-86-1	<1.00	NS	<0.16	<0.34	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Bromochloromethane	-	NCS	74-97-5	<5.00	NS	<0.38	<0.19	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Bromodichloromethane	6	HRL_{93}	75-27-4	<1.00	NS	<0.20	<0.068	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Bromoform	40	HRL_{93}	75-25-2	<1.00	NS	<1.0	<0.27	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
Bromomethane	10	HRL_{93}	74-83-9	<5.00	NS	<1.5	<0.44	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<10.0	NS	<4.0	NS
2-Butanone (MEK)	4,000	HRL_{94}	78-93-3	<10.0	NS	<2.4	<1.1	<5.0	NS	<5.0	NS	<5.0	NS	<5.0	NS	<4.0	NS	<4.0	NS
n-Butylbenzene	-	NCS	104-51-8	<1.00	NS	<0.13	<0.16	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
sec-Butylbenzene	-	NCS	135-98-8	<1.00	NS	<0.12	<0.19	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
tert-Butylbenzene	-	NCS	98-06-6	<1.00	NS	<0.15	<0.22	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Carbon Disulfide	700	HRL_{93}	75-15-0	NA	NS	<0.37	<0.30	NA	NS	NA	NS	NA	NS	NA	NS	NA	NA	NA	NA
Carbon tetrachloride	1	HRL_{13}	56-23-5	<1.00	NS	<0.20	<0.20	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Chlorobenzene	100	HRL_{93}	108-90-7	<1.00	NS	<0.14	<0.11	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Chloroethane	-	NCS	75-00-3	<5.00	NS	<0.44	<0.34	<1.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<1.0	NS	<1.0	NS
Chloroform	30	HRL	67-66-3	<5.00	NS	<0.46	<0.21	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Chloromethane	-	NCS	74-87-3	<2.50	NS	<1.1	<0.25	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
2-Chlorotoluene	-	NCS	95-49-8	<1.00	NS	<0.20	<0.30	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
4-Chlorotoluene	-	NCS	106-43-4	<1.00	NS	<0.13	<0.26	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2-Dibromo-3-chloropropane	-	NCS	96-12-8	<5.00	NS	<0.0036	<0.0011	<10.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
Dibromochloromethane	10	HRL_{93}	124-48-1	<1.00	NS	<0.13	<0.048	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2-Dibromoethane (EDB)	0.004	HRL_{93}	106-93-4	<1.00	NS	<0.0039	<0.0016	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Dibromomethane	-	NCS	74-95-3	<1.00	NS	<0.50	<0.19	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,2-Dichlorobenzene	600	HRL_{93}	95-50-1	<1.00	NS	<0.21	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,3-Dichlorobenzene	-	NCS	541-73-1	<1.00	NS	<0.16	<0.12	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,4-Dichlorobenzene	10	HRL_{94}	106-46-7	<1.00	NS	<0.10	<0.21	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Dichlorodifluoromethane	700	HRL_{11}	75-71-8	<5.00	NS	<0.31	<0.23	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1-Dichloroethane (DCA)	80	RAA_{16}	75-34-3	<1.00	NS	<0.14	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2-Dichloroethane	1	HRL_{13}	107-06-2	<1.00	NS	<0.32	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1-Dichloroethene (DCE)	200	HRL_{11}	75-35-4	<1.00	NS	<0.18	<0.28	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
cis-1,2-Dichloroethylene (cis DCE)	6	HBV_{14}	156-59-2	<1.00	NS	<0.20	<0.12	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
trans-1,2-Dichloroethylene (trans DCE)	40	HRL_{13}	156-60-5	<1.00	NS	<0.21	<0.16	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<4.0	NS
Dichlorofluoromethane	30	RAA_{15}	75-43-4	<5.00	NS	<0.38	<0.21	<1.0	NS	<1.0	NS	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2-Dichloropropane	5	HRL_{94}	78-87-5	<1.00	NS	<0.62	<0.22	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,3-Dichloropropane	-	NCS	142-28-9	<1.00	NS	<0.13	<0.096	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
2,2-Dichloropropane	-	NCS	594-20-7	<1.00	NS	<0.40	<0.13	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,1-Dichloropropene	-	NCS	563-58-6	<1.00	NS	<0.18	<0.23	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
cis-1,3-Dichloropropene	-	NCS	10061-01-5	<1.00	NS	<0.12	<0.15	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
trans-1,3-Dichloropropene	-	NCS	10061-02-6	<1.00	NS	<0.14	<0.15	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
Diethyl ether (Ethyl ether)	200	RAA_{16}	60-29-7	<1.00	NS	<1.3	<0.19	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,4-Dioxane	1	HRL_{13}	123-91-1	NA	NS	<0.36	<0.36	NA	NS	NA	NS	NA	NS	NA	NS	NA	NA	NA	NA
Ethylbenzene	50	HRL_{11}	100-41-4	<1.00	NS	<0.14	<0.15	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Hexachloro-1,3-butadiene	1	HRL_{93}	87-68-3	<1.00	NS	<0.48	<0.18	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<5.0	NS	<5.0	NS
2-Hexanone	-	NCS	591-78-6	NA	NS	<2.5	<0.19	NA	NS	NA	NS	NA	NS	NA	NS	NA	NA	NA	NA
Isopropylbenzene (Cumene)	300	HRL_{93}	98-82-8	<1.00	NS	<0.17	<0.25	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
p-Isopropyltoluene	-	NCS	99-87-6	<1.00	NS	<0.14	<0.19	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Methylene Chloride	5	HRL_{MCL}	75-09-2	<5.00	NS	<1.2	<0.29	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
4-Methyl-2-pentanone (MIBK)	300	HRL_{94}	108-10-1	<10.0	NS	<0.55	<0.43	<5.0	NS	<5.0	NS	<5.0	NS	<5.0	NS	<4.0	NS	<4.0	NS
Methyl-tert-butyl ether	60	RAA_{13}	1634-04-4	<1.00	NS	<0.40	<0.15	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Naphthalene	70	HRL_{13}	91-20-3	<5.00	NS	<0.42	<0.20	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
n-Propylbenzene	-	NCS	103-65-1	<1.00	NS	<0.15	<0.23	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Styrene	-	NCS	100-42-5	<1.00	NS	<0.14	<0.29	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1,1,2-Tetrachloroethane	70	HRL_{93}	630-20-6	<1.00	NS	<0.14	<0.064	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1,2,2-Tetrachloroethane	2	HRL_{94}	79-34-5	<1.00	NS	<0.19	<0.22	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Tetrachloroethylene (PCE)	4	HBV_{14}	127-18-4	<1.00	NS	<0.16	<0.25	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Tetrahydrofuran	600	HBV_{16}	109-99-9	<5.00	NS	<4.3	<1.5	<10.0	NS	<10.0	NS	<10.0	NS	<10.0	NS	<10.0	NS	<10.0	NS
Toluene	200	HRL_{11}	108-88-3	<1.00	NS	<0.17	<0.14	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2,3-Trichlorobenzene	-	NCS	87-61-6	<1.00	NS	<0.14	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2,4-Trichlorobenzene	4	HRL_{13}	120-82-1	<1.00	NS	<0.18	<0.21	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1,1-Trichloroethane	9,000	HRL_{09}	71-55-6	<1.00	NS	<0.15	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1,2-Trichloroethane	3	HRL_{93}	79-00-5	<1.00	NS	<0.22	<0.15	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Trichloroethylene (TCE)	0.4	HRL_{15}	79-01-6	<1.00	NS	<0.18	<0.052	<0.40	NS	<0.40	NS	<0.40	NS	<0.40	NS	<1.0	NS	<1.0	NS
Trichlorofluoromethane	2,000	HRL_{93}	75-69-4	<5.00	NS	<0.13	<0.33	<1.0	NS	<1.0	NS	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2,3-Trichloropropane	0.003	HRL_{13}	96-18-4	<2.50	NS	<0.66	<0.28	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,1,2-Trichlorotrifluoroethane	200,000	HRL_{93}	76-13-1	<1.00	NS	<0.28	<0.32	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2,4-Trimethylbenzene	100	RAA_{10}	95-63-6	<1.00	NS	<0.14	<0.18	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,3,5-Trimethylbenzene	100	HRL_{09}	108-67-8	<1.00	NS	<0.18	<0.27	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Vinyl chloride	0.2	HRL_{09}	75-01-4	<1.00	NS	<0.096	<0.069	<0.20	NS	<0.40	NS	<0.40	NS	<0.40	NS	<0.40	NS	<0.40	NS
Xylene (Total)	300	HRL_{11}	1330-20-7	<3.00	NS	<0.24	<0.32	<3.0	NS	<3.0	NS	<3.0	NS	<3.0	NS	<3.0	NS	<3.0	NS
m&p-Xylene	300	HRL_{11}	179601-23-1	NA	NS	<0.24	<0.11	NA	NS	NA	NS	NA	NS	NA	NS	<2.0	NS	<2.0	NS
o-Xylene	300	HRL_{11}	95-47-6	NA	NS	<0.17	<0.20	NA	NS	NA	NS	NA	NS	NA	NS	<1.0	NS	<1.0	NS
Total VOCs				**0.0**	**0.0**	**0.0**	**57.2**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

* Subscripts either indicate the last two digits of the year the standard was developed or is based on a US EPA Maximum Contaminant Level (MCL)
VOCs: Volatile Organic Compounds
TAL: Total Analyte List
PAHs: Polycyclic Aromatic Hydrocarbons
HBV: Health Based Value
HRL: Health Risk Limit
RAA: Risk Assessment Advice
MDH: Minnesota Department of Health
NA: Not Analyzed
NCS: No MDH Compliance Standard
NS: Not Sampled
U: The analyte was not detected above the laboratory reporting limit or method detection limit

J: Estimated value, the value was between the Method Detection Limit and the lab reporting limit
J_{11}: Estimated value, the method blank was >reporting limit; the sample was <10X the blank result, the data may be baised high
BOLD Parameter detected above laboratory reporting limit
BOLD Parameter detected above MDH Compliance Standards

Table 2A

Shallow Zone Quaternary Monitoring Well
VOC Concentrations
Kurt Manufacturing Company
5280 Main Street NE
Minneapolis, Minnesota

Sample ID / Collected Date	MDH Compliance Standards*		CAS Number	MW-12 Oct-18	MW-12 Jun-18	MW-12 Oct-17	MW-12 Jun-17	MW-12 Oct-16	MW-12 May-16	MW-12 Oct-15	MW-12 May-15	MW-12 Nov-14	MW-12 May-14	MW-12 Oct-13	MW-12 May-13	MW-12 Oct-12	MW-12 May-12	MW-12 Oct-11	MW-12 May-11
Acetone	4,000	HRL_{11}	67-64-1	<50.0	<9.2	<8.8	**52.3** J_{11}	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<25.0	<25.0	<25.0	<25.0
Allyl chloride	30	HRL_{94}	107-05-1	<5.00	<0.29	<1.0	<0.25	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Benzene	2	HRL_{09}	71-43-2	<1.00	<0.10	<0.34	<0.16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromobenzene	-	NCS	108-86-1	<1.00	<0.21	<0.16	<0.34	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromochloromethane	-	NCS	74-97-5	<5.00	<0.27	<0.38	<0.19	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromodichloromethane	6	HRL_{93}	75-27-4	<1.00	<0.22	<0.20	<0.068	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromoform	40	HRL_{93}	75-25-2	<1.00	<0.80	<1.0	<0.27	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Bromomethane	10	HRL_{93}	74-83-9	<5.00	<1.8	<1.5	<0.44	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<10.0	<4.0	<4.0	<4.0
2-Butanone (MEK)	4,000	HRL_{94}	78-93-3	<10.0	<0.99	<2.4	<1.1	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<4.0	<4.0	<4.0	<4.0
n-Butylbenzene	-	NCS	104-51-8	<1.00	<0.24	<0.13	<0.16	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
sec-Butylbenzene	-	NCS	135-98-8	<1.00	<0.15	<0.12	<0.19	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
tert-Butylbenzene	-	NCS	98-06-6	<1.00	<0.15	<0.15	<0.22	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon Disulfide	700	HRL_{93}	75-15-0	NA	NA	<0.37	<0.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	1	HRL_{13}	56-23-5	<1.00	<0.19	<0.20	<0.20	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorobenzene	100	HRL_{93}	108-90-7	<1.00	<0.17	<0.14	<0.11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	-	NCS	75-00-3	<5.00	<0.49	<0.44	<0.34	<1.0	<1.0	<4.0	<1.0	<4.0	<1.0	<4.0	<4.0	<1.0	<1.0	<1.0	<1.0
Chloroform	30	HRL	67-66-3	<5.00	<0.45	<0.46	<0.21	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloromethane	-	NCS	74-87-3	<2.50	<0.16	<1.1	<0.25	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
2-Chlorotoluene	-	NCS	95-49-8	<1.00	<0.16	<0.20	<0.30	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4-Chlorotoluene	-	NCS	106-43-4	<1.00	<0.13	<0.13	<0.26	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dibromo-3-chloropropane	-	NCS	96-12-8	<5.00	<1.7	<0.0036	<0.0011	<10.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Dibromochloromethane	10	HRL_{93}	124-48-1	<1.00	<0.12	<0.13	<0.048	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane (EDB)	0.004	HRL_{93}	106-93-4	<1.00	<0.24	<0.0039	<0.0016	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dibromomethane	-	NCS	74-95-3	<1.00	<0.16	<0.50	<0.19	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
1,2-Dichlorobenzene	600	HRL_{93}	95-50-1	<1.00	<0.14	<0.21	<0.17	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3-Dichlorobenzene	-	NCS	541-73-1	<1.00	<0.16	<0.16	<0.12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dichlorobenzene	10	HRL_{94}	106-46-7	<1.00	<0.17	<0.10	<0.21	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dichlorodifluoromethane	700	HRL_{11}	75-71-8	<5.00	<0.23	<0.31	<0.23	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane (DCA)	80	RAA_{16}	75-34-3	<1.00	<0.17	<0.14	<0.17	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloroethane	1	HRL_{13}	107-06-2	<1.00	<0.22	<0.32	<0.17	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene (DCE)	200	HRL_{11}	75-35-4	<1.00	<0.16	<0.18	<0.28	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethylene (cis DCE)	6	HBV_{14}	156-59-2	<1.00	<0.15	<0.20	**0.12** J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethylene (trans DCE)	40	HRL_{13}	156-60-5	<1.00	<0.12	<0.21	<0.16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0	<4.0
Dichlorofluoromethane	30	RAA_{15}	75-43-4	<5.00	<0.14	<0.38	<0.21	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloropropane	5	HRL_{94}	78-87-5	<1.00	<0.16	<0.62	<0.22	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
1,3-Dichloropropane	-	NCS	142-28-9	<1.00	<0.070	<0.13	<0.096	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2,2-Dichloropropane	-	NCS	594-20-7	<1.00	<0.17	<0.40	<0.13	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
1,1-Dichloropropene	-	NCS	563-58-6	<1.00	<0.20	<0.18	<0.23	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,3-Dichloropropene	-	NCS	10061-01-5	<1.00	<0.20	<0.12	<0.15	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
trans-1,3-Dichloropropene	-	NCS	10061-02-6	<1.00	<0.18	<0.14	<0.15	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Diethyl ether (Ethyl ether)	200	RAA_{16}	60-29-7	<1.00	<0.095	<1.3	<0.19	<4.0	<4.0	<4.0	<10.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
1,4-Dioxane	1	HRL_{13}	123-91-1	NA	NA	<0.36	<0.36	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	50	HRL_{11}	100-41-4	<1.00	<0.14	<0.14	<0.15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Hexachloro-1,3-butadiene	1	HRL_{93}	87-68-3	<1.00	<0.31	<0.48	<0.18	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
2-Hexanone	-	NCS	591-78-6	NA	NA	<2.5	<0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene (Cumene)	300	HRL_{93}	98-82-8	<1.00	<0.18	<0.17	<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
p-Isopropyltoluene	-	NCS	99-87-6	<1.00	<0.15	<0.14	<0.19	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	5	HRL_{MCL}	75-09-2	<5.00	<0.98	<1.2	<0.29	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
4-Methyl-2-pentanone (MIBK)	300	HRL_{94}	108-10-1	<10.0	<0.42	<0.55	<0.43	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<4.0	<4.0	<4.0	<4.0
Methyl-tert-butyl ether	60	RAA_{13}	1634-04-4	<1.00	<0.16	<0.40	<0.15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Naphthalene	70	HRL_{13}	91-20-3	<5.00	<0.48	<0.42	<0.20	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
n-Propylbenzene	-	NCS	103-65-1	<1.00	<0.10	<0.15	<0.23	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Styrene	-	NCS	100-42-5	<1.00	<0.19	<0.14	<0.29	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1,2-Tetrachloroethane	70	HRL_{93}	630-20-6	<1.00	<0.20	<0.14	<0.064	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane	2	HRL_{94}	79-34-5	<1.00	<0.17	<0.19	<0.22	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethylene (PCE)	4	HBV_{14}	127-18-4	<1.00	**7.2**	**10.7**	**7.3**	**8.6**	**11.9**	**10.6**	**23.6**	**12.0**	**17.6**	**22.8**	**18.2**	**19.0**	**20.1**	**20.5**	**19.2**
Tetrahydrofuran	600	HBV_{16}	109-99-9	<5.00	<2.2	<4.3	<1.5	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Toluene	200	HRL_{11}	108-88-3	<1.00	<0.083	<0.17	<0.14	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichlorobenzene	-	NCS	87-61-6	<1.00	<0.21	<0.14	<0.17	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	4	HRL_{13}	120-82-1	<1.00	<0.20	<0.18	<0.21	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane	9,000	HRL_{09}	71-55-6	<1.00	<0.14	<0.15	<0.17	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	3	HRL_{93}	79-00-5	<1.00	<0.18	<0.22	<0.15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethylene (TCE)	0.4	HRL_{15}	79-01-6	**0.882** J	**0.33** J	**0.46** J	**0.6**	**1.3**	**0.82**	**0.64**	**0.70**	**0.84**	**0.87**	**0.63**	<1.0	<1.0	<1.0	<1.0	**1.3**
Trichlorofluoromethane	2,000	HRL_{93}	75-69-4	<5.00	<0.23	<0.13	<0.33	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichloropropane	0.003	HRL_{13}	96-18-4	<2.50	<0.26	<0.66	<0.28	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
1,1,2-Trichlorotrifluoroethane	200,000	HRL_{93}	76-13-1	<1.00	<0.22	<0.28	<0.32	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	100	RAA_{10}	95-63-6	<1.00	<0.20	<0.14	<0.18	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	100	HRL_{09}	108-67-8	<1.00	<0.12	<0.18	<0.27	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl chloride	0.2	HRL_{09}	75-01-4	<1.00	<0.092	<0.096	<0.069	<0.20	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Xylene (Total)	300	HRL_{11}	1330-20-7	<3.00	<0.31	<0.24	<0.32	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
m&p-Xylene	300	HRL_{11}	179601-23-1	NA	NA	<0.24	<0.11	NA	NA	NA	NA	NA	NA	NA	NA	<2.0	<2.0	<2.0	<2.0
o-Xylene	300	HRL_{11}	95-47-6	NA	NA	<0.17	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0
Total VOCs				**0.9**	**7.5**	**11.2**	**60.3**	**9.9**	**12.7**	**11.2**	**24.3**	**12.8**	**18.5**	**23.4**	**18.2**	**19.0**	**20.1**	**20.5**	**20.5**

* Subscripts either indicate the last two digits of the year the standard was developed or is based on a US EPA Maximum Contaminant Level (MCL)
VOCs: Volatile Organic Compounds
TAL: Total Analyte List
PAHs: Polycyclic Aromatic Hydrocarbons
HBV: Health Based Value
HRL: Health Risk Limit
RAA: Risk Assessment Advice
MDH: Minnesota Department of Health
NA: Not Analyzed
NCS: No MDH Compliance Standard
NS: Not Sampled
U: The analyte was not detected above the laboratory reporting limit or method detection limit

J: Estimated value, the value was between the Method Detection Limit and the lab reporting limit
J_{11}: Estimated value, the method blank was >reporting limit; the sample was <10X the blank result, the data may be baised high
BOLD Parameter detected above laboratory reporting limit
BOLD Parameter detected above MDH Compliance Standards

Table 2A

Shallow Zone Quaternary Monitoring Well
VOC Concentrations
Kurt Manufacturing Company
5280 Main Street NE
Minneapolis, Minnesota

Sample ID Collected Date	MDH Compliance Standards*		CAS Number	MW-14 Oct-18	MW-14 Jun-18	MW-14 Oct-17	MW-14 Jun-17	MW-14 Oct-16	MW-14 May-16	MW-14 Oct-15	MW-14 May-15	MW-14 Nov-14	MW-14 May-14	MW-14 Oct-13	MW-14 May-13	MW-14 Oct-12	MW-14 May-12	MW-14 Oct-11	MW-14 May-11
Acetone	4,000	HRL_{11}	67-64-1	<50.0	NS	<8.8	**118** J_{11}	<20.0	NS	<20.0	NS	<20.0	NS	<20.0	NS	<25.0	NS	<25.0	NS
Allyl chloride	30	HRL_{94}	107-05-1	<5.00	NS	<1.0	<0.25	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
Benzene	2	HRL_{09}	71-43-2	<1.00	NS	<0.34	<0.16	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Bromobenzene	-	NCS	108-86-1	<1.00	NS	<0.16	<0.34	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Bromochloromethane	-	NCS	74-97-5	<5.00	NS	<0.38	<0.19	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Bromodichloromethane	6	HRL_{93}	75-27-4	<1.00	NS	<0.20	<0.068	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Bromoform	40	HRL_{93}	75-25-2	<1.00	NS	<1.0	<0.27	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
Bromomethane	10	HRL_{93}	74-83-9	<5.00	NS	<1.5	<0.44	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
2-Butanone (MEK)	4,000	HRL_{94}	78-93-3	<10.0	NS	<2.4	<1.1	<5.0	NS	<5.0	NS	<5.0	NS	<5.0	NS	<4.0	NS	<4.0	NS
n-Butylbenzene	-	NCS	104-51-8	<1.00	NS	<0.13	<0.16	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
sec-Butylbenzene	-	NCS	135-98-8	<1.00	NS	<0.12	<0.19	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
tert-Butylbenzene	-	NCS	98-06-6	<1.00	NS	<0.15	<0.22	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Carbon Disulfide	700	HRL_{93}	75-15-0	NA	NS	<0.37	<0.30	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS
Carbon tetrachloride	1	HRL_{13}	56-23-5	<1.00	NS	<0.20	<0.20	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Chlorobenzene	100	HRL_{93}	108-90-7	<1.00	NS	<0.14	<0.11	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Chloroethane	-	NCS	75-00-3	<5.00	NS	<0.44	<0.34	<1.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<1.0	NS	<1.0	NS
Chloroform	30	HRL	67-66-3	<5.00	NS	<0.46	<0.21	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Chloromethane	-	NCS	74-87-3	<2.50	NS	<1.1	<0.25	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
2-Chlorotoluene	-	NCS	95-49-8	<1.00	NS	<0.20	<0.30	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
4-Chlorotoluene	-	NCS	106-43-4	<1.00	NS	<0.13	<0.26	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2-Dibromo-3-chloropropane	-	NCS	96-12-8	<5.00	NS	<0.0036	<0.0011	<10.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
Dibromochloromethane	10	HRL_{93}	124-48-1	<1.00	NS	<0.13	<0.048	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2-Dibromoethane (EDB)	0.004	HRL_{93}	106-93-4	<1.00	NS	<0.0039	<0.0016	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Dibromomethane	-	NCS	74-95-3	<1.00	NS	<0.50	<0.19	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,2-Dichlorobenzene	600	HRL_{93}	95-50-1	<1.00	NS	<0.21	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,3-Dichlorobenzene	-	NCS	541-73-1	<1.00	NS	<0.16	<0.12	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,4-Dichlorobenzene	10	HRL_{94}	106-46-7	<1.00	NS	<0.10	<0.21	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Dichlorodifluoromethane	700	HRL_{11}	75-71-8	<5.00	NS	<0.31	<0.23	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1-Dichloroethane (DCA)	80	RAA_{16}	75-34-3	<1.00	NS	<0.14	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2-Dichloroethane	1	HRL_{13}	107-06-2	<1.00	NS	<0.32	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1-Dichloroethene (DCE)	200	HRL_{11}	75-35-4	<1.00	NS	<0.18	<0.28	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
cis-1,2-Dichloroethylene (cis DCE)	6	HBV_{14}	156-59-2	<1.00	NS	<0.20	<0.12	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
trans-1,2-Dichloroethylene (trans DCE)	40	HRL_{13}	156-60-5	<1.00	NS	<0.21	<0.16	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<4.0	NS
Dichlorofluoromethane	30	RAA_{15}	75-43-4	<5.00 J_4	NS	<0.38	<0.21	<1.0	NS	<1.0	NS	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2-Dichloropropane	5	HRL_{94}	78-87-5	<1.00	NS	<0.62	<0.22	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,3-Dichloropropane	-	NCS	142-28-9	<1.00	NS	<0.13	<0.096	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
2,2-Dichloropropane	-	NCS	594-20-7	<1.00	NS	<0.40	<0.13	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,1-Dichloropropene	-	NCS	563-58-6	<1.00	NS	<0.18	<0.23	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
cis-1,3-Dichloropropene	-	NCS	10061-01-5	<1.00	NS	<0.12	<0.15	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
trans-1,3-Dichloropropene	-	NCS	10061-02-6	<1.00	NS	<0.14	<0.15	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
Diethyl ether (Ethyl ether)	200	RAA_{16}	60-29-7	<1.00	NS	<1.3	<0.19	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,4-Dioxane	1	HRL_{13}	123-91-1	NA	NS	<0.36	<0.36	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS
Ethylbenzene	50	HRL_{11}	100-41-4	<1.00	NS	<0.14	<0.15	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Hexachloro-1,3-butadiene	1	HRL_{93}	87-68-3	<1.00	NS	<0.48	<0.18	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<5.0	NS	<5.0	NS
2-Hexanone	-	NCS	591-78-6	NA	NS	<2.5	<0.19	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS
Isopropylbenzene (Cumene)	300	HRL_{93}	98-82-8	<1.00	NS	<0.17	<0.25	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
p-Isopropyltoluene	-	NCS	99-87-6	<1.00	NS	<0.14	<0.19	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Methylene Chloride	5	HRL_{MCL}	75-09-2	<5.00	NS	<1.2	<0.29	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
4-Methyl-2-pentanone (MIBK)	300	HRL_{94}	108-10-1	<10.0	NS	<0.55	<0.43	<5.0	NS	<5.0	NS	<5.0	NS	<5.0	NS	<4.0	NS	<4.0	NS
Methyl-tert-butyl ether	60	RAA_{13}	1634-04-4	<1.00	NS	<0.40	<0.15	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Naphthalene	70	HRL_{13}	91-20-3	<5.00	NS	<0.42	<0.20	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
n-Propylbenzene	-	NCS	103-65-1	<1.00	NS	<0.15	<0.23	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Styrene	-	NCS	100-42-5	<1.00	NS	<0.14	<0.29	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1,1,2-Tetrachloroethane	70	HRL_{93}	630-20-6	<1.00	NS	<0.14	<0.064	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1,2,2-Tetrachloroethane	2	HRL_{94}	79-34-5	<1.00	NS	<0.19	<0.22	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Tetrachloroethylene (PCE)	4	HBV_{14}	127-18-4	**16.6**	NS	**24.6**	**26.1**	**3.4**	NS	**5.0**	NS	**7.6**	NS	**2.5**	NS	**1.9**	NS	**4.5**	NS
Tetrahydrofuran	600	HBV_{16}	109-99-9	<5.00	NS	<4.3	<1.5	<10.0	NS	<10.0	NS	<10.0	NS	<10.0	NS	<10.0	NS	<10.0	NS
Toluene	200	HRL_{11}	108-88-3	<1.00	NS	<0.17	<0.14	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2,3-Trichlorobenzene	-	NCS	87-61-6	<1.00	NS	<0.14	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2,4-Trichlorobenzene	4	HRL_{13}	120-82-1	<1.00	NS	<0.18	<0.21	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1,1-Trichloroethane	9,000	HRL_{09}	71-55-6	<1.00	NS	<0.15	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1,2-Trichloroethane	3	HRL_{93}	79-00-5	<1.00	NS	<0.22	<0.15	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Trichloroethylene (TCE)	0.4	HRL_{15}	79-01-6	<1.00	NS	<0.18	<0.052	<0.40	NS	<0.40	NS	<0.40	NS	<0.40	NS	<1.0	NS	<1.0	NS
Trichlorofluoromethane	2,000	HRL_{93}	75-69-4	<5.00	NS	<0.13	<0.33	<1.0	NS	<1.0	NS	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2,3-Trichloropropane	0.003	HRL_{13}	96-18-4	<2.50	NS	<0.66	<0.28	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,1,2-Trichlorotrifluoroethane	200,000	HRL_{93}	76-13-1	<1.00	NS	<0.28	<0.32	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2,4-Trimethylbenzene	100	RAA_{10}	95-63-6	<1.00	NS	<0.14	<0.18	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,3,5-Trimethylbenzene	100	HRL_{09}	108-67-8	<1.00	NS	<0.18	<0.27	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Vinyl chloride	0.2	HRL_{09}	75-01-4	<1.00	NS	<0.096	<0.069	<0.20	NS	<0.40	NS	<0.40	NS	<0.40	NS	<0.40	NS	<0.40	NS
Xylene (Total)	300	HRL_{11}	1330-20-7	<3.00	NS	<0.24	<0.32	<3.0	NS	<3.0	NS	<3.0	NS	<3.0	NS	<3.0	NS	<3.0	NS
m&p-Xylene	300	HRL_{11}	179601-23-1	NA	NS	<0.24	<0.11	NA	NS	NA	NS	NA	NS	NA	NS	<2.0	NS	<2.0	NS
o-Xylene	300	HRL_{11}	95-47-6	NA	NS	<0.17	<0.20	NA	NS	NA	NS	NA	NS	NA	NS	<1.0	NS	<1.0	NS
Total VOCs				**16.6**	**0.0**	**24.6**	**144.1**	**3.4**	**0.0**	**5.0**	**0.0**	**7.6**	**0.0**	**2.5**	**0.0**	**1.9**	**0.0**	**4.5**	**0.0**

* Subscripts either indicate the last two digits of the year the standard was developed or is based on a US EPA Maximum Contaminant Level (MCL)
VOCs: Volatile Organic Compounds
TAL: Total Analyte List
PAHs: Polycyclic Aromatic Hydrocarbons
HBV: Health Based Value
HRL: Health Risk Limit
RAA: Risk Assessment Advice
MDH: Minnesota Department of Health
NA: Not Analyzed
NCS: No MDH Compliance Standard
NS: Not Sampled
U: The analyte was not detected above the laboratory reporting limit or method detection limit

J: Estimated value, the value was between the Method Detection Limit and the lab reporting limit
J_{11}, Estimated value, the method blank was >reporting limit; the sample was <10X the blank result, the data may be baised high
BOLD Parameter detected above laboratory reporting limit
BOLD Parameter detected above MDH Compliance Standards

Table 2B

Deep Zone Quaternary Monitoring Well
VOC Concentrations
Kurt Manufacturing Company
5280 Main Street NE
Minneapolis, Minnesota

Sample ID / Collected Date	MDH Compliance Standards*		CAS Number	MW-7 Oct-18	MW-7 Jun-18	MW-7 Oct-17	MW-7 Jun-17	MW-7 Oct-16	MW-7 May-16	MW-7 Oct-15	MW-7 May-15	MW-7 Nov-14	MW-7 May-14	MW-7 Oct-13	MW-7 May-13	MW-7 Oct-12	MW-7 May-12	MW-7 Oct-11	MW-7 May-11
Acetone	4,000	HRL_{11}	67-64-1	<50.0	NS	<8.8	20 U	<20.0	<20.0	<20.0	<20.0	<20.0	NS	<40.0	NS	<25.0	NS	<25.0	NS
Allyl chloride	30	HRL_{94}	107-05-1	<5.00	NS	<1.0	<0.25	<4.0	<4.0	<4.0	<4.0	<4.0	NS	<8.0	NS	<4.0	NS	<4.0	NS
Benzene	2	HRL_{09}	71-43-2	<1.00	NS	<0.34	<0.16	<1.0	<1.0	<1.0	<1.0	<1.0	NS	<2.0	NS	<1.0	NS	<1.0	NS
Bromobenzene	-	NCS	108-86-1	<1.00	NS	<0.16	<0.34	<1.0	<1.0	<1.0	<1.0	<1.0	NS	<2.0	NS	<1.0	NS	<1.0	NS
Bromochloromethane	-	NCS	74-97-5	<5.00	NS	<0.38	<0.19	<1.0	<1.0	<1.0	<1.0	<1.0	NS	<2.0	NS	<1.0	NS	<1.0	NS
Bromodichloromethane	6	HRL_{93}	75-27-4	<1.00	NS	<0.2	<0.068	<1.0	<1.0	<1.0	<1.0	<1.0	NS	<2.0	NS	<1.0	NS	<1.0	NS
Bromoform	40	HRL_{93}	75-25-2	<1.00	NS	<1.0	<0.27	<4.0	<4.0	<4.0	<4.0	<4.0	NS	<8.0	NS	<4.0	NS	<4.0	NS
Bromomethane	10	HRL_{93}	74-83-9	<5.00	NS	<1.5	<0.44	<4.0	<4.0	<4.0	<4.0	<4.0	NS	<8.0	NS	<4.0	NS	<4.0	NS
2-Butanone (MEK)	4,000	HRL_{94}	78-93-3	<10.0	NS	<2.4	<1.1	<5.0	<5.0	<5.0	<5.0	<5.0	NS	<10.0	NS	<4.0	NS	<4.0	NS
n-Butylbenzene	-	NCS	104-51-8	<1.00	NS	<0.13	<0.16	<4.0	<1.0	<1.0	<1.0	<1.0	NS	<2.0	NS	<1.0	NS	<1.0	NS
sec-Butylbenzene	-	NCS	135-98-8	<1.00	NS	<0.12	<0.19	<4.0	<1.0	<1.0	<1.0	<1.0	NS	<2.0	NS	<1.0	NS	<1.0	NS
tert-Butylbenzene	-	NCS	98-06-6	<1.00	NS	<0.15	<0.22	<1.0	<1.0	<1.0	<1.0	<1.0	NS	<2.0	NS	<1.0	NS	<1.0	NS
Carbon Disulfide	700	HRL_{93}	75-15-0	NA	NS	<0.37	<0.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	1	HRL_{13}	56-23-5	<1.00	NS	<0.2	<0.20	<4.0	<1.0	<1.0	<1.0	<1.0	NS	<2.0	NS	<1.0	NS	<1.0	NS
Chlorobenzene	100	HRL_{93}	108-90-7	<1.00	NS	<0.14	<0.11	<1.0	<1.0	<1.0	<1.0	<1.0	NS	<2.0	NS	<1.0	NS	<1.0	NS
Chloroethane	-	NCS	75-00-3	<5.00	NS	<0.44	<0.34	<1.0	<1.0	<4.0	<1.0	<4.0	NS	<8.0	NS	<1.0	NS	<1.0	NS
Chloroform	30	HRL	67-66-3	<5.00	NS	<0.46	<0.21	<1.0	<4.0	<1.0	<1.0	<1.0	NS	<2.0	NS	<1.0	NS	<1.0	NS
Chloromethane	-	NCS	74-87-3	<2.50	NS	<1.1	<0.25	<4.0	<4.0	<4.0	<4.0	<4.0	NS	<8.0	NS	<4.0	NS	<4.0	NS
2-Chlorotoluene	-	NCS	95-49-8	<1.00	NS	<0.2	<0.30	<1.0	<1.0	<1.0	<1.0	<1.0	NS	<2.0	NS	<1.0	NS	<1.0	NS
4-Chlorotoluene	-	NCS	106-43-4	<1.00	NS	<0.13	<0.26	<1.0	<1.0	<1.0	<1.0	<1.0	NS	<2.0	NS	<1.0	NS	<1.0	NS
1,2-Dibromo-3-chloropropane	-	NCS	96-12-8	<5.00	NS	<0.0036	<0.0011	<10.0	<4.0	<4.0	<4.0	<4.0	NS	<8.0	NS	<4.0	NS	<4.0	NS
Dibromochloromethane	10	HRL_{93}	124-48-1	<1.00	NS	<0.13	<0.048	<4.0	<1.0	<1.0	<1.0	<1.0	NS	<2.0	NS	<1.0	NS	<1.0	NS
1,2-Dibromoethane (EDB)	0.004	HRL_{93}	106-93-4	<1.00	NS	<0.0039	<0.0016	<1.0	<1.0	<1.0	<1.0	<1.0	NS	<2.0	NS	<1.0	NS	<1.0	NS
Dibromomethane	-	NCS	74-95-3	<1.00	NS	<0.5	<0.19	<4.0	<4.0	<4.0	<4.0	<4.0	NS	<8.0	NS	<4.0	NS	<4.0	NS
1,2-Dichlorobenzene	600	HRL_{93}	95-50-1	<1.00	NS	<0.21	<0.17	<1.0	<1.0	<1.0	<1.0	<1.0	NS	<2.0	NS	<1.0	NS	<1.0	NS
1,3-Dichlorobenzene	-	NCS	541-73-1	<1.00	NS	<0.16	<0.12	<1.0	<1.0	<1.0	<1.0	<1.0	NS	<2.0	NS	<1.0	NS	<1.0	NS
1,4-Dichlorobenzene	10	HRL_{94}	106-46-7	<1.00	NS	<0.1	<0.21	<1.0	<1.0	<1.0	<1.0	<1.0	NS	<2.0	NS	<1.0	NS	<1.0	NS
Dichlorodifluoromethane	700	HRL_{11}	75-71-8	<5.00	NS	<0.31	<0.23	<1.0	<1.0	<1.0	<1.0	<1.0	NS	<2.0	NS	<1.0	NS	<1.0	NS
1,1-Dichloroethane (DCA)	80	RAA_{16}	75-34-3	**4.5**	NS	**4.7**	**4.9**	**5.0**	**5.3**	**4.7**	**5.8**	**5.9**	NS	**6.5**	NS	**5.6**	NS	**6.5**	NS
1,2-Dichloroethane	1	HRL_{13}	107-06-2	<1.00	NS	<0.32	<0.17	<1.0	<1.0	<1.0	<1.0	<1.0	NS	<2.0	NS	<1.0	NS	<1.0	NS
1,1-Dichloroethene (DCE)	200	HRL_{11}	75-35-4	**0.5** J	NS	**0.9** J	**1.2**	**1.7**	**1.6**	**1.8**	**1.9**	**2.4**	NS	**3.4**	NS	**3.6**	NS	**5.4**	NS
cis-1,2-Dichloroethylene (cis DCE)	6	HBV_{14}	156-59-2	**47.8**	NS	**54.2**	**55.6**	**63.5**	**61.9**	**57.3**	**68.6**	**68.1**	NS	**80.5**	NS	**69.7**	NS	**90.3**	NS
trans-1,2-Dichloroethylene (trans DCE)	40	HRL_{13}	156-60-5	**1.6**	NS	**1.3**	**1.3**	**1.4**	**1.4**	**1.2**	**1.6**	**1.3**	NS	<2.0	NS	**1.2**	NS	<4.0	NS
Dichlorofluoromethane	30	RAA_{15}	75-43-4	<5.00 J_4	NS	<0.38	<0.21	<1.0	<1.0	<1.0	<1.0	<4.0	NS	<2.0	NS	<1.0	NS	<1.0	NS
1,2-Dichloropropane	5	HRL_{94}	78-87-5	<1.00	NS	<0.62	<0.22	<4.0	<4.0	<4.0	<4.0	<4.0	NS	<8.0	NS	<4.0	NS	<4.0	NS
1,3-Dichloropropane	-	NCS	142-28-9	<1.00	NS	<0.13	<0.096	<1.0	<1.0	<1.0	<1.0	<1.0	NS	<2.0	NS	<1.0	NS	<1.0	NS
2,2-Dichloropropane	-	NCS	594-20-7	<1.00	NS	<0.4	<0.13	<4.0	<4.0	<4.0	<4.0	<4.0	NS	<8.0	NS	<4.0	NS	<4.0	NS
1,1-Dichloropropene	-	NCS	563-58-6	<1.00	NS	<0.18	<0.23	<1.0	<1.0	<1.0	<1.0	<1.0	NS	<2.0	NS	<1.0	NS	<1.0	NS
cis-1,3-Dichloropropene	-	NCS	10061-01-5	<1.00	NS	<0.12	<0.15	<4.0	<4.0	<4.0	<4.0	<4.0	NS	<8.0	NS	<4.0	NS	<4.0	NS
trans-1,3-Dichloropropene	-	NCS	10061-02-6	<1.00	NS	<0.14	<0.15	<4.0	<4.0	<4.0	<4.0	<4.0	NS	<8.0	NS	<4.0	NS	<4.0	NS
Diethyl ether (Ethyl ether)	200	RAA_{16}	60-29-7	<1.00	NS	<1.3	<0.19	<4.0	<4.0	<4.0	<10.0	<4.0	NS	<8.0	NS	<4.0	NS	<4.0	NS
1,4-Dioxane	1	HRL_{13}	123-91-1	NA	NS	**3.3**	**2.8** U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	50	HRL_{11}	100-41-4	<1.00	NS	<0.14	<0.15	<1.0	<1.0	<1.0	<1.0	<1.0	NS	<2.0	NS	<1.0	NS	<1.0	NS
Hexachloro-1,3-butadiene	1	HRL_{93}	87-68-3	<1.00	NS	<0.48	<0.18	<4.0	<1.0	<1.0	<1.0	<1.0	NS	<2.0	NS	<5.0	NS	<5.0	NS
2-Hexanone	-	NCS	591-78-6	NA	NS	<2.5	<0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene (Cumene)	300	HRL_{93}	98-82-8	<1.00	NS	<0.17	<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	NS	<2.0	NS	<1.0	NS	<1.0	NS
p-Isopropyltoluene	-	NCS	99-87-6	<1.00	NS	<0.14	<0.19	<4.0	<1.0	<1.0	<1.0	<1.0	NS	<2.0	NS	<1.0	NS	<1.0	NS
Methylene Chloride	5	HRL_{MCL}	75-09-2	<5.00	NS	<1.2	<0.29	<4.0	<4.0	<4.0	<4.0	<4.0	NS	<8.0	NS	<4.0	NS	<4.0	NS
4-Methyl-2-pentanone (MIBK)	300	HRL_{94}	108-10-1	<10.0	NS	<0.55	<0.43	<5.0	<5.0	<5.0	<5.0	<5.0	NS	<10.0	NS	<4.0	NS	<4.0	NS
Methyl-tert-butyl ether	60	RAA_{13}	1634-04-4	<1.00	NS	<0.4	<0.15	<1.0	<1.0	<1.0	<1.0	<1.0	NS	<2.0	NS	<1.0	NS	<1.0	NS
Naphthalene	70	HRL_{13}	91-20-3	<5.00	NS	<0.42	<0.20	<4.0	<4.0	<4.0	<4.0	<4.0	NS	<8.0	NS	<4.0	NS	<4.0	NS
n-Propylbenzene	-	NCS	103-65-1	<1.00	NS	<0.15	<0.23	<1.0	<1.0	<1.0	<1.0	<1.0	NS	<2.0	NS	<1.0	NS	<1.0	NS
Styrene	-	NCS	100-42-5	<1.00	NS	<0.14	<0.29	<1.0	<1.0	<1.0	<1.0	<1.0	NS	<2.0	NS	<1.0	NS	<1.0	NS
1,1,1,2-Tetrachloroethane	70	HRL_{93}	630-20-6	<1.00	NS	<0.14	<0.064	<4.0	<1.0	<1.0	<1.0	<1.0	NS	<2.0	NS	<1.0	NS	<1.0	NS
1,1,2,2-Tetrachloroethane	2	HRL_{94}	79-34-5	<1.00	NS	<0.19	<0.22	<1.0	<1.0	<1.0	<1.0	<1.0	NS	<2.0	NS	<1.0	NS	<1.0	NS
Tetrachloroethylene (PCE)	4	HBV_{14}	127-18-4	**9.1**	NS	**14.5**	**13.8**	**23.0**	**21.6**	**26.2**	**25.5**	**32.1**	NS	**34.0**	NS	**35.6**	NS	**88.8**	NS
Tetrahydrofuran	600	HBV_{16}	109-99-9	<5.00	NS	<4.3	<1.5	<10.0	<10.0	<10.0	<10.0	<10.0	NS	<20.0	NS	<10.0	NS	**43.0**	NS
Toluene	200	HRL_{11}	108-88-3	<1.00	NS	<0.17	<0.14	<1.0	<1.0	<1.0	<1.0	<1.0	NS	<2.0	NS	<1.0	NS	<1.0	NS
1,2,3-Trichlorobenzene	-	NCS	87-61-6	<1.00	NS	<0.14	<0.17	<1.0	<1.0	<1.0	<1.0	<1.0	NS	<2.0	NS	<1.0	NS	<1.0	NS
1,2,4-Trichlorobenzene	4	HRL_{13}	120-82-1	<1.00	NS	<0.18	<0.21	<1.0	<1.0	<1.0	<1.0	<1.0	NS	<2.0	NS	<1.0	NS	<1.0	NS
1,1,1-Trichloroethane	9,000	HRL_{09}	71-55-6	<1.00	NS	<0.15	<0.17	<1.0	<1.0	<1.0	<1.0	<1.0	NS	<2.0	NS	<1.0	NS	<1.0	NS
1,1,2-Trichloroethane	3	HRL_{93}	79-00-5	<1.00	NS	<0.22	<0.15	<1.0	<1.0	<1.0	<1.0	<1.0	NS	<2.0	NS	<1.0	NS	<1.0	NS
Trichloroethylene (TCE)	0.4	HRL_{15}	79-01-6	**34.8**	NS	**63.7**	**54.2**	**73.5**	**66.4**	**88.8**	**68.9**	**98.8**	NS	**150**	NS	**122**	NS	**212**	NS
Trichlorofluoromethane	2,000	HRL_{93}	75-69-4	<5.00	NS	<0.13	<0.33	<1.0	<1.0	<1.0	<1.0	<4.0	NS	<2.0	NS	<1.0	NS	<1.0	NS
1,2,3-Trichloropropane	0.003	HRL_{13}	96-18-4	<2.50	NS	<0.66	<0.28	<4.0	<4.0	<4.0	<4.0	<4.0	NS	<8.0	NS	<4.0	NS	<4.0	NS
1,1,2-Trichlorotrifluoroethane	200,000	HRL_{93}	76-13-1	<1.00	NS	<0.28	<0.32	<1.0	<1.0	<1.0	<1.0	<1.0	NS	<2.0	NS	<1.0	NS	<1.0	NS
1,2,4-Trimethylbenzene	100	RAA_{10}	95-63-6	<1.00	NS	<0.14	<0.18	<1.0	<1.0	<1.0	<1.0	<1.0	NS	<2.0	NS	<1.0	NS	<1.0	NS
1,3,5-Trimethylbenzene	100	HRL_{09}	108-67-8	<1.00	NS	<0.18	<0.27	<1.0	<1.0	<1.0	<1.0	<1.0	NS	<2.0	NS	<1.0	NS	<1.0	NS
Vinyl chloride	0.2	HRL_{09}	75-01-4	**3.2**	NS	**2.3**	**1.8**	**2.1**	**2.5**	**1.5**	**2.5**	**2.8**	NS	**5.2**	NS	**3.7**	NS	**5.7**	NS
Xylene (Total)	300	HRL_{11}	1330-20-7	<3.00	NS	<0.24	<0.32	<3.0	<3.0	<3.0	<3.0	<3.0	NS	<6.0	NS	<3.0	NS	<3.0	NS
m&p-Xylene	300	HRL_{11}	179601-23-1	NA	NS	<0.24	<0.11	NA	NA	NA	NA	NA	NA	NA	NA	<2.0	NS	<2.0	NS
o-Xylene	300	HRL_{11}	95-47-6	NA	NS	<0.17	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	<1.0	NS	<1.0	NS
Total VOCs				**101.5**	**0.0**	**144.9**	**135.6**	**170.2**	**160.7**	**181.5**	**174.8**	**211.4**	**0.0**	**279.6**	**0.0**	**241.4**	**0.0**	**451.7**	**0.0**

* Subscripts either indicate the last two digits of the year the standard was developed or is based on a US EPA Maximum Contaminant Level (MCL)

HBV: Health Based Value

HRL: Health Risk Limit

RAA: Risk Assessment Advice

MDH: Minnesota Department of Health

NA: Not Analyzed

NCS: No MDH Compliance Standard

NS: Not Sampled

U: The analyte was not detected above the laboratory reporting limit or method detection limit

J: Estimated value, the value was between the Method Detection Limit and the lab reporting limit

J_{11}, Estimated value, the method blank was >reporting limit; the sample was <10X the blank result, the data may be baised high

BOLD Parameter detected above laboratory reporting limit

BOLD Parameter detected above MDH Compliance Standards

Table 2B

Deep Zone Quaternary Monitoring Well
VOC Concentrations
Kurt Manufacturing Company
5280 Main Street NE
Minneapolis, Minnesota

Sample ID / Collected Date	MDH Compliance Standards*		CAS Number	MW-8 Oct-18	MW-8 Jun-18	MW-8 Oct-17	MW-8 Jun-17	MW-8 Oct-16	MW-8 May-16	MW-8 Oct-15	MW-8 May-15	MW-8 Nov-14	MW-8 May-14	MW-8 Oct-13	MW-8 May-13	MW-8 Oct-12	MW-8 May-12	MW-8 Oct-11	MW-8 May-11
Acetone	4,000	HRL_{11}	67-64-1	<50.0	<9.2	<8.8	20 U	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<25.0	<25.0	<25.0	<25.0
Allyl chloride	30	HRL_{94}	107-05-1	<5.00	<0.29	<1.0	<0.25	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Benzene	2	HRL_{09}	71-43-2	<1.00	<0.10	<0.34	<0.16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromobenzene	-	NCS	108-86-1	<1.00	<0.21	<0.16	<0.34	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromochloromethane	-	NCS	74-97-5	<5.00	<0.27	<0.38	<0.19	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromodichloromethane	6	HRL_{93}	75-27-4	<1.00	<0.22	<0.20	<0.068	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromoform	40	HRL_{93}	75-25-2	<1.00	<0.80	<1.0	<0.27	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Bromomethane	10	HRL_{93}	74-83-9	<5.00	<1.8	<1.5	<0.44	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
2-Butanone (MEK)	4,000	HRL_{94}	78-93-3	<10.0	<0.99	<2.4	<1.1	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<4.0	<4.0	<4.0	<4.0
n-Butylbenzene	-	NCS	104-51-8	<1.00	<0.24	<0.13	<0.16	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
sec-Butylbenzene	-	NCS	135-98-8	<1.00	<0.15	<0.12	<0.19	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
tert-Butylbenzene	-	NCS	98-06-6	<1.00	<0.15	<0.15	<0.22	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon Disulfide	700	HRL_{93}	75-15-0	NA	NA	<0.37	<0.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	1	HRL_{13}	56-23-5	<1.00	<0.19	<0.20	<0.20	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorobenzene	100	HRL_{93}	108-90-7	<1.00	<0.17	<0.14	<0.11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	-	NCS	75-00-3	<5.00	<0.49	<0.44	<0.34	<1.0	<1.0	<4.0	<1.0	<4.0	<1.0	<4.0	<4.0	<1.0	<1.0	<1.0	<1.0
Chloroform	30	HRL	67-66-3	<5.00	<0.45	<0.46	<0.21	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloromethane	-	NCS	74-87-3	<2.50	<0.16	<1.1	<0.25	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
2-Chlorotoluene	-	NCS	95-49-8	<1.00	<0.16	<0.20	<0.30	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4-Chlorotoluene	-	NCS	106-43-4	<1.00	<0.13	<0.13	<0.26	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dibromo-3-chloropropane	-	NCS	96-12-8	<5.00	<1.7	<0.0037	<0.0011	<10.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Dibromochloromethane	10	HRL_{93}	124-48-1	<1.00	<0.12	<0.13	<0.048	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane (EDB)	0.004	HRL_{93}	106-93-4	<1.00	<0.24	<0.0039	<0.0016	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dibromomethane	-	NCS	74-95-3	<1.00	<0.16	<0.50	<0.19	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
1,2-Dichlorobenzene	600	HRL_{93}	95-50-1	<1.00	<0.14	<0.21	<0.17	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3-Dichlorobenzene	-	NCS	541-73-1	<1.00	<0.16	<0.16	<0.12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dichlorobenzene	10	HRL_{94}	106-46-7	<1.00	<0.17	<0.10	<0.21	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dichlorodifluoromethane	700	HRL_{11}	75-71-8	<5.00	<0.23	<0.31	<0.23	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane (DCA)	80	RAA_{16}	75-34-3	<1.00	<0.17	<0.14	<0.17	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloroethane	1	HRL_{13}	107-06-2	<1.00	<0.22	<0.32	<0.17	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene (DCE)	200	HRL_{11}	75-35-4	<1.00	<0.16	<0.18	<0.28	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethylene (cis DCE)	6	HBV_{14}	156-59-2	<1.00	<0.15	<0.20	<0.12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethylene (trans DCE)	40	HRL_{13}	156-60-5	<1.00	<0.12	<0.21	<0.16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0	<4.0
Dichlorofluoromethane	30	RAA_{15}	75-43-4	<5.00 J_4	<0.14	<0.38	<0.21	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloropropane	5	HRL_{94}	78-87-5	<1.00	<0.16	<0.62	<0.22	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
1,3-Dichloropropane	-	NCS	142-28-9	<1.00	<0.070	<0.13	<0.096	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2,2-Dichloropropane	-	NCS	594-20-7	<1.00	<0.17	<0.40	<0.13	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
1,1-Dichloropropene	-	NCS	563-58-6	<1.00	<0.20	<0.18	<0.23	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,3-Dichloropropene	-	NCS	10061-01-5	<1.00	<0.20	<0.12	<0.15	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
trans-1,3-Dichloropropene	-	NCS	10061-02-6	<1.00	<0.18	<0.14	<0.15	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Diethyl ether (Ethyl ether)	200	RAA_{16}	60-29-7	<1.00	<0.095	<1.3	<0.19	<4.0	<4.0	<4.0	<10.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
1,4-Dioxane	1	HRL_{13}	123-91-1	NA	NA	**1.70** J	**1.4** J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	50	HRL_{11}	100-41-4	<1.00	<0.14	<0.14	<0.15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Hexachloro-1,3-butadiene	1	HRL_{93}	87-68-3	<1.00	<0.31	<0.48	<0.18	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Hexanone	-	NCS	591-78-6	NA	NA	<2.5	<0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene (Cumene)	300	HRL_{93}	98-82-8	<1.00	<0.18	<0.17	<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
p-Isopropyltoluene	-	NCS	99-87-6	<1.00	<0.15	<0.14	<0.19	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	5	HRL_{MCL}	75-09-2	<5.00	<0.98	<1.2	<0.29	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
4-Methyl-2-pentanone (MIBK)	300	HRL_{94}	108-10-1	<10.0	<0.42	<0.55	<0.43	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<4.0	<4.0	<4.0	<4.0
Methyl-tert-butyl ether	60	RAA_{13}	1634-04-4	<1.00	<0.16	<0.40	<0.15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Naphthalene	70	HRL_{13}	91-20-3	<5.00	<0.48	<0.42	<0.20	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
n-Propylbenzene	-	NCS	103-65-1	<1.00	<0.10	<0.15	<0.23	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Styrene	-	NCS	100-42-5	<1.00	<0.19	<0.14	<0.29	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1,2-Tetrachloroethane	70	HRL_{93}	630-20-6	<1.00	<0.20	<0.14	<0.064	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane	2	HRL_{94}	79-34-5	<1.00	<0.17	<0.19	<0.22	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethylene (PCE)	4	HBV_{14}	127-18-4	**3.22**	**0.48** J	**1.30**	**0.86** J	**2.1**	<1.0	**2.1**	**1.5**	<1.0	<1.0	<1.0	<1.0	<1.0	**1.7**	**1.9**	<1.0
Tetrahydrofuran	600	HBV_{16}	109-99-9	<5.00	<2.2	<4.3	<1.5	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Toluene	200	HRL_{11}	108-88-3	<1.00	**0.23** J	<0.17	<0.14	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichlorobenzene	-	NCS	87-61-6	<1.00	<0.21	<0.14	<0.17	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	4	HRL_{13}	120-82-1	<1.00	<0.20	<0.18	<0.21	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane	9,000	HRL_{09}	71-55-6	<1.00	<0.14	<0.15	<0.17	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	3	HRL_{93}	79-00-5	<1.00	<0.18	<0.22	<0.15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethylene (TCE)	0.4	HRL_{15}	79-01-6	<1.00	<0.15	**0.20** J	<0.052	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<1.0	<1.0	<1.0	<1.0	<1.0
Trichlorofluoromethane	2,000	HRL_{93}	75-69-4	<5.00	<0.23	<0.13	<0.33	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichloropropane	0.003	HRL_{13}	96-18-4	<2.50	<0.26	<0.66	<0.28	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
1,1,2-Trichlorotrifluoroethane	200,000	HRL_{93}	76-13-1	<1.00	<0.22	<0.28	<0.32	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	100	RAA_{10}	95-63-6	<1.00	<0.20	<0.14	<0.18	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	100	HRL_{09}	108-67-8	<1.00	<0.12	<0.18	<0.27	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl chloride	0.2	HRL_{09}	75-01-4	<1.00	<0.092	<0.096	<0.069	<0.20	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Xylene (Total)	300	HRL_{11}	1330-20-7	<3.00	<0.31	<0.24	<0.32	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
m&p-Xylene	300	HRL_{11}	179601-23-1	NA	NA	<0.24	<0.11	NA	NA	NA	NA	NA	NA	NA	NA	<2.0	<2.0	<2.0	<2.0
o-Xylene	300	HRL_{11}	95-47-6	NA	NA	<0.17	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0
Total VOCs				**3.2**	**0.7**	**3.2**	**2.3**	**2.1**	**0.0**	**2.1**	**1.5**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**1.7**	**1.9**	**0.0**

* Subscripts either indicate the last two digits of the year the standard was developed or is based on a US EPA Maximum Contaminant Level (MCL)

HBV: Health Based Value

HRL: Health Risk Limit

RAA: Risk Assessment Advice

MDH: Minnesota Department of Health

NA: Not Analyzed

NCS: No MDH Compliance Standard

NS: Not Sampled

U: The analyte was not detected above the laboratory reporting limit or method detection limit

J: Estimated value, the value was between the Method Detection Limit and the lab reporting limit

J_{11}, Estimated value, the method blank was >reporting limit; the sample was <10X the blank result, the data may be baised high

BOLD Parameter detected above laboratory reporting limit

BOLD Parameter detected above MDH Compliance Standards

Table 2B

Deep Zone Quaternary Monitoring Well
VOC Concentrations
Kurt Manufacturing Company
5280 Main Street NE
Minneapolis, Minnesota

Sample ID / Collected Date	MDH Compliance Standards*		CAS Number	MW-9 Oct-18	MW-9 Jun-18	MW-9 Oct-17	MW-9 Jun-17	MW-9 Oct-16	MW-9 May-16	MW-9 Oct-15	MW-9 May-15	MW-9 Nov-14	MW-9 May-14	MW-9 Oct-13	MW-9 May-13	MW-9 Oct-12	MW-9 May-12	MW-9 Oct-11	MW-9 May-11
Acetone	4,000	HRL_{11}	67-64-1	<50.0	NS	<8.8	20 U	<20.0	NS	<20.0	NS	<20.0	NS	<20.0	NS	<25.0	NS	<25.0	NS
Allyl chloride	30	HRL_{94}	107-05-1	<5.00	NS	<1.0	<0.25	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
Benzene	2	HRL_{09}	71-43-2	<1.00	NS	<0.34	<0.16	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Bromobenzene	-	NCS	108-86-1	<1.00	NS	<0.16	<0.34	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Bromochloromethane	-	NCS	74-97-5	<5.00	NS	<0.38	<0.19	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Bromodichloromethane	6	HRL_{93}	75-27-4	<1.00	NS	<0.20	<0.068	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Bromoform	40	HRL_{93}	75-25-2	<1.00	NS	<1.0	<0.27	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
Bromomethane	10	HRL_{93}	74-83-9	<5.00	NS	<1.5	<0.44	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<10.0	NS	<4.0	NS
2-Butanone (MEK)	4,000	HRL_{94}	78-93-3	<10.0	NS	<2.4	<1.1	<5.0	NS	<5.0	NS	<5.0	NS	<5.0	NS	<4.0	NS	<4.0	NS
n-Butylbenzene	-	NCS	104-51-8	<1.00	NS	<0.13	<0.16	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
sec-Butylbenzene	-	NCS	135-98-8	<1.00	NS	<0.12	<0.19	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
tert-Butylbenzene	-	NCS	98-06-6	<1.00	NS	<0.15	<0.22	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Carbon Disulfide	700	HRL_{93}	75-15-0	NA	NS	<0.37	<0.30	NA	NS	NA	NS	NA	NS	NA	NS	NA	NA	NA	NA
Carbon Tetrachloride	1	HRL_{13}	56-23-5	<1.00	NS	<0.20	<0.20	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Chlorobenzene	100	HRL_{93}	108-90-7	<1.00	NS	<0.14	<0.11	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Chloroethane	-	NCS	75-00-3	<5.00	NS	<0.44	<0.34	<1.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<1.0	NS	<1.0	NS
Chloroform	30	HRL	67-66-3	<5.00	NS	<0.46	<0.21	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Chloromethane	-	NCS	74-87-3	<2.50	NS	<1.1	<0.25	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
2-Chlorotoluene	-	NCS	95-49-8	<1.00	NS	<0.20	<0.30	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
4-Chlorotoluene	-	NCS	106-43-4	<1.00	NS	<0.13	<0.26	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2-Dibromo-3-chloropropane	-	NCS	96-12-8	<5.00	NS	<0.0036	<0.0011	<10.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
Dibromochloromethane	10	HRL_{93}	124-48-1	<1.00	NS	<0.13	<0.048	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2-Dibromoethane (EDB)	0.004	HRL_{93}	106-93-4	<1.00	NS	<0.0038	<0.0016	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Dibromomethane	-	NCS	74-95-3	<1.00	NS	<0.50	<0.19	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,2-Dichlorobenzene	600	HRL_{93}	95-50-1	<1.00	NS	<0.21	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,3-Dichlorobenzene	-	NCS	541-73-1	<1.00	NS	<0.16	<0.12	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,4-Dichlorobenzene	10	HRL_{94}	106-46-7	<1.00	NS	<0.10	<0.21	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Dichlorodifluoromethane	700	HRL_{11}	75-71-8	<5.00	NS	<0.31	<0.23	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1-Dichloroethane (DCA)	80	RAA_{16}	75-34-3	**2.36**	NS	**2.0**	**1.9**	**2.1**	NS	**1.6**	NS	**2.1**	NS	**2.4**	NS	**2.0**	NS	**1.8**	NS
1,2-Dichloroethane	1	HRL_{13}	107-06-2	<1.00	NS	<0.32	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1-Dichloroethene (DCE)	200	HRL_{11}	75-35-4	<1.00	NS	<0.18	<0.28	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
cis-1,2-Dichloroethylene (cis DCE)	6	HBV_{14}	156-59-2	**2.15**	NS	**2.0**	**1.9**	**2.3**	NS	**1.6**	NS	**2.0**	NS	**2.0**	NS	**2.4**	NS	**1.5**	NS
trans-1,2-Dichloroethylene (trans DCE)	40	HRL_{13}	156-60-5	**0.42** J	NS	**0.25** J	<0.16	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<4.0	NS
Dichlorofluoromethane	30	RAA_{15}	75-43-4	<5.00 J_4	NS	<0.38	<0.21	<1.0	NS	<1.0	NS	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2-Dichloropropane	5	HRL_{94}	78-87-5	<1.00	NS	<0.62	<0.22	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,3-Dichloropropane	-	NCS	142-28-9	<1.00	NS	<0.13	<0.096	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
2,2-Dichloropropane	-	NCS	594-20-7	<1.00	NS	<0.40	<0.13	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,1-Dichloropropene	-	NCS	563-58-6	<1.00	NS	<0.18	<0.23	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
cis-1,3-Dichloropropene	-	NCS	10061-01-5	<1.00	NS	<0.12	<0.15	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
trans-1,3-Dichloropropene	-	NCS	10061-02-6	<1.00	NS	<0.14	<0.15	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
Diethyl ether (Ethyl ether)	200	RAA_{16}	60-29-7	<1.00	NS	<1.3	<0.19	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,4-Dioxane	1	HRL_{13}	123-91-1	NA	NS	**2.6** J	**3.3**	NA	NS	NA	NS	NA	NS	NA	NS	NA	NA	NA	NA
Ethylbenzene	50	HRL_{11}	100-41-4	<1.00	NS	<0.14	<0.15	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Hexachloro-1,3-butadiene	1	HRL_{93}	87-68-3	<1.00	NS	<0.48	<0.18	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<5.0	NS	<5.0	NS
2-Hexanone	-	NCS	591-78-6	NA	NS	<2.5	<0.19	NA	NS	NA	NS	NA	NS	NA	NS	NA	NA	NA	NA
Isopropylbenzene (Cumene)	300	HRL_{93}	98-82-8	<1.00	NS	<0.17	<0.25	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
p-Isopropyltoluene	-	NCS	99-87-6	<1.00	NS	<0.14	<0.19	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Methylene Chloride	5	HRL_{MCL}	75-09-2	<5.00	NS	<1.2	<0.29	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
4-Methyl-2-pentanone (MIBK)	300	HRL_{94}	108-10-1	<10.0	NS	<0.55	<0.43	<5.0	NS	<5.0	NS	<5.0	NS	<5.0	NS	<4.0	NS	<4.0	NS
Methyl-tert-butyl ether	60	RAA_{13}	1634-04-4	<1.00	NS	<0.40	<0.15	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Naphthalene	70	HRL_{13}	91-20-3	<5.00	NS	<0.42	<0.20	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
n-Propylbenzene	-	NCS	103-65-1	<1.00	NS	<0.15	<0.23	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Styrene	-	NCS	100-42-5	<1.00	NS	<0.14	<0.29	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1,1,2-Tetrachloroethane	70	HRL_{93}	630-20-6	<1.00	NS	<0.14	<0.064	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1,2,2-Tetrachloroethane	2	HRL_{94}	79-34-5	<1.00	NS	<0.19	<0.22	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Tetrachloroethylene (PCE)	4	HBV_{14}	127-18-4	<1.00	NS	<0.16	<0.25	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Tetrahydrofuran	600	HBV_{16}	109-99-9	<5.00	NS	<4.3	<1.5	<10.0	NS	<10.0	NS	<10.0	NS	<10.0	NS	<10.0	NS	<10.0	NS
Toluene	200	HRL_{11}	108-88-3	<1.00	NS	<0.17	<0.14	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2,3-Trichlorobenzene	-	NCS	87-61-6	<1.00	NS	<0.14	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2,4-Trichlorobenzene	4	HRL_{13}	120-82-1	<1.00	NS	<0.18	<0.21	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1,1-Trichloroethane	9,000	HRL_{09}	71-55-6	<1.00	NS	<0.15	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1,2-Trichloroethane	3	HRL_{93}	79-00-5	<1.00	NS	<0.22	<0.15	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Trichloroethylene (TCE)	0.4	HRL_{15}	79-01-6	**1.23**	NS	**1.2**	**1**	**1.2**	NS	**0.88**	NS	**1.1**	NS	**1.1**	NS	**1.4**	NS	<1.0	NS
Trichlorofluoromethane	2,000	HRL_{93}	75-69-4	<5.00	NS	<0.13	<0.33	<1.0	NS	<1.0	NS	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2,3-Trichloropropane	0.003	HRL_{13}	96-18-4	<2.50	NS	<0.66	<0.28	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,1,2-Trichlorotrifluoroethane	200,000	HRL_{93}	76-13-1	<1.00	NS	<0.28	<0.32	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2,4-Trimethylbenzene	100	RAA_{10}	95-63-6	<1.00	NS	<0.14	<0.18	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,3,5-Trimethylbenzene	100	HRL_{09}	108-67-8	<1.00	NS	<0.18	<0.27	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Vinyl chloride	0.2	HRL_{09}	75-01-4	<1.00	NS	<0.096	<0.069	<0.20	NS	<0.40	NS	<0.40	NS	<0.40	NS	<0.40	NS	<0.40	NS
Xylene (Total)	300	HRL_{11}	1330-20-7	<3.00	NS	<0.24	<0.32	<3.0	NS	<3.0	NS	<3.0	NS	<3.0	NS	<3.0	NS	<3.0	NS
m&p-Xylene	300	HRL_{11}	179601-23-1	NA	NS	<0.24	<0.11	NA	NS	NA	NS	NA	NS	NA	NS	<2.0	NS	<2.0	NS
o-Xylene	300	HRL_{11}	95-47-6	NA	NS	<0.17	<0.20	NA	NS	NA	NS	NA	NS	NA	NS	<1.0	NS	<1.0	NS
Total VOCs				**6.2**	**0.0**	**8.1**	**8.1**	**5.6**	**0.0**	**4.1**	**0.0**	**5.2**	**0.0**	**5.5**	**0.0**	**5.8**	**0.0**	**3.3**	**0.0**

* Subscripts either indicate the last two digits of the year the standard was developed or is based on a US EPA Maximum Contaminant Level (MCL)

HBV: Health Based Value

HRL: Health Risk Limit

RAA: Risk Assessment Advice

MDH: Minnesota Department of Health

NA: Not Analyzed

NCS: No MDH Compliance Standard

NS: Not Sampled

U: The analyte was not detected above the laboratory reporting limit or method detection limit

J: Estimated value, the value was between the Method Detection Limit and the lab reporting limit

J_{11}: Estimated value, the method blank was >reporting limit; the sample was <10X the blank result, the data may be baised high

BOLD Parameter detected above laboratory reporting limit

BOLD Parameter detected above MDH Compliance Standards

Table 2B

Deep Zone Quaternary Monitoring Well
VOC Concentrations
Kurt Manufacturing Company
5280 Main Street NE
Minneapolis, Minnesota

Sample ID Collected Date	MDH Compliance Standards*		CAS Number	MW-13 Oct-18	MW-13 Jun-18	MW-13 Oct-17	MW-13 Jun-17	MW-13 Oct-16	MW-13 May-16	MW-13 Oct-15	MW-13 May-15	MW-13 Nov-14	MW-13 May-14	MW-13 Oct-13	MW-13 May-13	MW-13 Oct-12	MW-13 May-12	MW-13 Oct-11	MW-13 May-11	MW-15	MW-15 Jun-18	MW-15 Oct-17	MW-15 Jun-17
Acetone	4,000	HRL_{11}	67-64-1	<50.0	NS	<8.8	20 U	<20.0	NS	<20.0	NS	**21.90**	NS	<20.0	NS	<25.0	NS	<25.0	NS	<50.0	<9.2	<8.8	20 U
Allyl chloride	30	HRL_{94}	107-05-1	<5.00	NS	<1.0	<0.25	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<5.00	<0.29	<1	<0.25
Benzene	2	HRL_{09}	71-43-2	<1.00	NS	<0.34	<0.16	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.00	<0.10	<0.34	<0.16
Bromobenzene	-	NCS	108-86-1	<1.00	NS	<0.16	<0.34	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.00	<0.21	<0.16	<0.34
Bromochloromethane	-	NCS	74-97-5	<5.00	NS	<0.38	<0.19	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<5.00	<0.27	<0.38	<0.19
Bromodichloromethane	6	HRL_{93}	75-27-4	<1.00	NS	<0.20	<0.068	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.00	<0.22	<0.2	<0.068
Bromoform	40	HRL_{93}	75-25-2	<1.00	NS	<1.0	<0.27	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<1.00	<0.80	<1	<0.27
Bromomethane	10	HRL_{93}	74-83-9	<5.00	NS	<1.5	<0.44	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<5.00	<1.8	<1.5	<0.44
2-Butanone (MEK)	4,000	HRL_{94}	78-93-3	<10.0	NS	<2.4	<1.1	<5.0	NS	<5.0	NS	<5.0	NS	<5.0	NS	<4.0	NS	<4.0	NS	<10.0	<0.99	<2.4	<1.1
n-Butylbenzene	-	NCS	104-51-8	<1.00	NS	<0.13	<0.16	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.00	<0.24	<0.13	<0.16
sec-Butylbenzene	-	NCS	135-98-8	<1.00	NS	<0.12	<0.19	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.00	<0.15	<0.12	<0.19
tert-Butylbenzene	-	NCS	98-06-6	<1.00	NS	<0.15	<0.22	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.00	<0.15	<0.15	<0.22
Carbon Disulfide	700	HRL_{93}	75-15-0	NA	NS	<0.37	<0.30	NA	NS	NA	NS	NA	NS	NA	NS	NA	NA	NA	NA	NA	NA	<0.37	<0.30
Carbon Tetrachloride	1	HRL_{13}	56-23-5	<1.00	NS	<0.20	<0.20	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.00	<0.19	<0.2	<0.20
Chlorobenzene	100	HRL_{93}	108-90-7	<1.00	NS	<0.14	<0.11	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.00	<0.17	<0.14	<0.11
Chloroethane	-	NCS	75-00-3	<5.00	NS	<0.44	<0.34	<1.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<1.0	NS	<1.0	NS	<5.00	<0.49	<0.44	<0.34
Chloroform	30	HRL	67-66-3	<5.00	NS	<0.46	<0.21	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<5.00	<0.45	<0.46	<0.21
Chloromethane	-	NCS	74-87-3	<2.50	NS	<1.1	<0.25	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<2.50	<0.16	<1.1	<0.25
2-Chlorotoluene	-	NCS	95-49-8	<1.00	NS	<0.20	<0.30	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.00	<0.16	<0.2	<0.30
4-Chlorotoluene	-	NCS	106-43-4	<1.00	NS	<0.13	<0.26	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.00	<0.13	<0.13	<0.26
1,2-Dibromo-3-chloropropane	-	NCS	96-12-8	<5.00	NS	<0.0036	<0.0011	<10.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<5.00	<1.7	<0.0036	<0.0011
Dibromochloromethane	10	HRL_{93}	124-48-1	<1.00	NS	<0.13	<0.048	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.00	<0.12	<0.13	<0.048
1,2-Dibromoethane (EDB)	0.004	HRL_{93}	106-93-4	<1.00	NS	<0.0039	<0.0016	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.00	<0.24	<0.0039	<0.0016
Dibromomethane	-	NCS	74-95-3	<1.00	NS	<0.50	<0.19	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<1.00	<0.16	<0.5	<0.19
1,2-Dichlorobenzene	600	HRL_{93}	95-50-1	<1.00	NS	<0.21	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.00	<0.14	<0.21	<0.17
1,3-Dichlorobenzene	-	NCS	541-73-1	<1.00	NS	<0.16	<0.12	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.00	<0.16	<0.16	<0.12
1,4-Dichlorobenzene	10	HRL_{94}	106-46-7	<1.00	NS	<0.10	<0.21	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.00	<0.17	<0.1	<0.21
Dichlorodifluoromethane	700	HRL_{11}	75-71-8	<5.00	NS	<0.31	<0.23	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<5.00	<0.23	<0.31	<0.23
1,1-Dichloroethane (DCA)	80	RAA_{16}	75-34-3	<1.00	NS	<0.14	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.00	<0.17	<0.14	<0.17
1,2-Dichloroethane	1	HRL_{13}	107-06-2	<1.00	NS	<0.32	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.00	<0.22	<0.32	<0.17
1,1-Dichloroethene (DCE)	200	HRL_{11}	75-35-4	<1.00	NS	<0.18	<0.28	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.00	<0.16	<0.18	<0.28
cis-1,2-Dichloroethylene (cis DCE)	6	HBV_{14}	156-59-2	<1.00	NS	<0.20	<0.12	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.00	<0.15	<0.2	**0.21** J
trans-1,2-Dichloroethylene (trans DCE)	40	HRL_{13}	156-60-5	<1.00	NS	<0.21	<0.16	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<4.0	NS	<1.00	<0.12	<0.21	<0.16
Dichlorofluoromethane	30	RAA_{15}	75-43-4	<5.00 J_4	NS	<0.38	<0.21	<1.0	NS	<1.0	NS	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<5.00 J_4	<0.14	<0.38	<0.21
1,2-Dichloropropane	5	HRL_{94}	78-87-5	<1.00	NS	<0.62	<0.22	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<1.00	<0.16	<0.62	<0.22
1,3-Dichloropropane	-	NCS	142-28-9	<1.00	NS	<0.13	<0.096	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.00	<0.070	<0.13	<0.096
2,2-Dichloropropane	-	NCS	594-20-7	<1.00	NS	<0.40	<0.13	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<1.00	<0.17	<0.4	<0.13
1,1-Dichloropropene	-	NCS	563-58-6	<1.00	NS	<0.18	<0.23	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.00	<0.20	<0.18	<0.23
cis-1,3-Dichloropropene	-	NCS	10061-01-5	<1.00	NS	<0.12	<0.15	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<1.00	<0.20	<0.12	<0.15
trans-1,3-Dichloropropene	-	NCS	10061-02-6	<1.00	NS	<0.14	<0.15	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<1.00	<0.18	<0.14	<0.15
Diethyl ether (Ethyl ether)	200	RAA_{16}	60-29-7	<1.00	NS	<1.3	<0.19	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<1.00	<0.095	<1.3	<0.19
1,4-Dioxane	1	HRL_{13}	123-91-1	NA	NS	**0.42** J	<0.36	NA	NS	NA	NS	NA	NS	NA	NS	NA	NA	NA	NA	NA	NA	**0.42** J	<0.36
Ethylbenzene	50	HRL_{11}	100-41-4	<1.00	NS	<0.14	<0.15	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.00	<0.14	<0.14	<0.15
Hexachloro-1,3-butadiene	1	HRL_{93}	87-68-3	<1.00	NS	<0.48	<0.18	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<5.0	NS	<5.0	NS	<1.00	<0.31	<0.48	<0.18
2-Hexanone	-	NCS	591-78-6	NA	NS	<2.5	<0.19	NA	NS	NA	NS	NA	NS	NA	NS	NA	NA	NA	NA	NA	NA	<2.5	<0.19
Isopropylbenzene (Cumene)	300	HRL_{93}	98-82-8	<1.00	NS	<0.17	<0.25	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.00	<0.18	<0.17	<0.25
p-Isopropyltoluene	-	NCS	99-87-6	<1.00	NS	<0.14	<0.19	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.00	<0.15	<0.14	<0.19
Methylene Chloride	5	HRL_{MCL}	75-09-2	<5.00	NS	<1.2	<0.29	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<5.00	<0.98	<1.2	<0.29
4-Methyl-2-pentanone (MIBK)	300	HRL_{94}	108-10-1	<10.0	NS	<0.55	<0.43	<5.0	NS	<5.0	NS	<5.0	NS	<5.0	NS	<4.0	NS	<4.0	NS	<10.0	<0.42	<0.55	<0.43
Methyl-tert-butyl ether	60	RAA_{13}	1634-04-4	<1.00	NS	<0.40	<0.15	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.00	<0.16	<0.4	<0.15
Naphthalene	70	HRL_{13}	91-20-3	<5.00	NS	<0.42	<0.20	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<5.00	<0.48	<0.42	<0.20
n-Propylbenzene	-	NCS	103-65-1	<1.00	NS	<0.15	<0.23	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.00	<0.10	<0.15	<0.23
Styrene	-	NCS	100-42-5	<1.00	NS	<0.14	<0.29	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.00	<0.19	<0.14	<0.29
1,1,1,2-Tetrachloroethane	70	HRL_{93}	630-20-6	<1.00	NS	<0.14	<0.064	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.00	<0.20	<0.14	<0.064
1,1,2,2-Tetrachloroethane	2	HRL_{94}	79-34-5	<1.00	NS	<0.19	<0.22	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.00	<0.17	<0.19	<0.22
Tetrachloroethylene (PCE)	4	HBV_{14}	127-18-4	<1.00	NS	<0.16	<0.25	<1.0	NS	<1.0	NS	<1.0	NS	**2.3**	NS	<1.0	NS	<1.0	NS	<1.00	<0.17	<0.16	<0.25
Tetrahydrofuran	600	HBV_{16}	109-99-9	<5.00	NS	<4.3	<1.5	<10.0	NS	<10.0	NS	<10.0	NS	<10.0	NS	<10.0	NS	<10.0	NS	<5.00	<2.2	<4.3	<1.5
Toluene	200	HRL_{11}	108-88-3	<1.00	NS	<0.17	<0.14	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.00	<0.083	<0.17	<0.14
1,2,3-Trichlorobenzene	-	NCS	87-61-6	<1.00	NS	<0.14	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.00	<0.21	<0.14	<0.17
1,2,4-Trichlorobenzene	4	HRL_{13}	120-82-1	<1.00	NS	<0.18	<0.21	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.00	<0.20	<0.18	<0.21
1,1,1-Trichloroethane	9,000	HRL_{09}	71-55-6	<1.00	NS	<0.15	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.00	<0.14	<0.15	<0.17
1,1,2-Trichloroethane	3	HRL_{93}	79-00-5	<1.00	NS	<0.22	<0.15	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.00	<0.18	<0.22	<0.15
Trichloroethylene (TCE)	0.4	HRL_{15}	79-01-6	<1.00	NS	<0.18	<0.052	<0.40	NS	**0.63**	NS	<0.40	NS	<0.40	NS	<1.0	NS	<1.0	NS	<1.00	<0.15	<0.18	<0.052
Trichlorofluoromethane	2,000	HRL_{93}	75-69-4	<5.00	NS	<0.13	<0.33	<1.0	NS	<1.0	NS	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<5.00	<0.23	<0.13	<0.33
1,2,3-Trichloropropane	0.003	HRL_{13}	96-18-4	<2.50	NS	<0.66	<0.28	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<2.50	<0.26	<0.66	<0.28
1,1,2-Trichlorotrifluoroethane	200,000	HRL_{93}	76-13-1	<1.00	NS	<0.28	<0.32	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.00	<0.22	<0.28	<0.32
1,2,4-Trimethylbenzene	100	RAA_{10}	95-63-6	<1.00	NS	<0.14	<0.18	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.00	<0.20	<0.14	<0.18
1,3,5-Trimethylbenzene	100	HRL_{09}	108-67-8	<1.00	NS	<0.18	<0.27	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.00	<0.12	<0.18	<0.27
Vinyl chloride	0.2	HRL_{09}	75-01-4	<1.00	NS	<0.096	<0.069	<0.20	NS	<0.40	NS	<0.40	NS	<0.40	NS	<0.40	NS	<0.40	NS	<1.00	<0.092	<0.096	<0.069
Xylene (Total)	300	HRL_{11}	1330-20-7	<3.00	NS	<0.24	<0.32	<3.0	NS	<3.0	NS	<3.0	NS	<3.0	NS	<3.0	NS	<3.0	NS	<3.00	<0.31	<0.24	<0.32
m&p-Xylene	300	HRL_{11}	179601-23-1	NA	NS	<0.24	<0.11	NA	NS	NA	NS	NA	NS	NA	NS	<2.0	NS	<2.0	NS	NA	NA	<0.24	<0.11
o-Xylene	300	HRL_{11}	95-47-6	NA	NS	<0.17	<0.20	NA	NS	NA	NS	NA	NS	NA	NS	<1.0	NS	<1.0	NS	NA	NA	<0.17	<0.20
Total VOCs				**0.0**	**0.0**	**0.4**	**0.0**	**0.0**	**0.0**	**0.6**	**0.0**	**21.9**	**0.0**	**2.3**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.4**	**0.2**

* Subscripts either indicate the last two digits of the year the standard was developed or is based on a US EPA Maximum Contaminant Level (MCL)

HBV: Health Based Value

HRL: Health Risk Limit

RAA: Risk Assessment Advice

MDH: Minnesota Department of Health

NA: Not Analyzed

NCS: No MDH Compliance Standard

NS: Not Sampled

U: The analyte was not detected above the laboratory reporting limit or method detection limit

J: Estimated value, the value was between the Method Detection Limit and the lab reporting limit

J_{11}: Estimated value, the method blank was >reporting limit; the sample was <10X the blank result, the data may be baised high

BOLD Parameter detected above laboratory reporting limit

BOLD Parameter detected above MDH Compliance Standards

Table 2B

Deep Zone Quaternary Monitoring Well
VOC Concentrations
Kurt Manufacturing Company
5280 Main Street NE
Minneapolis, Minnesota

Sample ID / Collected Date	MDH Compliance Standards*		CAS Number	Well B Oct-18	Well B Jun-18	Well B Oct-17	Well B Jun-17	Well B Oct-16	Well B May-16	Well B Oct-15	Well B May-15	Well B Nov-14	Well B May-14	Well B Oct-13	Well B May-13	Well B Oct-12	Well B May-12	Well B Oct-11	Well B May-11
Acetone	4,000	HRL_{11}	67-64-1	<50.0	NS	<8.8	20 U	<20.0	NS	<20.0	NS	<20.0	NS	<20.0	NS	<25.0	NS	<25.0	NS
Allyl chloride	30	HRL_{94}	107-05-1	<5.00	NS	<1.0	<0.25	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
Benzene	2	HRL_{09}	71-43-2	<1.00	NS	<0.34	<0.16	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Bromobenzene	-	NCS	108-86-1	<1.00	NS	<0.16	<0.34	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Bromochloromethane	-	NCS	74-97-5	<5.00	NS	<0.38	<0.19	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Bromodichloromethane	6	HRL_{93}	75-27-4	<1.00	NS	<0.20	<0.068	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Bromoform	40	HRL_{93}	75-25-2	<1.00	NS	<1.0	<0.27	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
Bromomethane	10	HRL_{93}	74-83-9	<5.00	NS	<1.5	<0.44	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<10.0	NS	<4.0	NS
2-Butanone (MEK)	4,000	HRL_{94}	78-93-3	<10.0	NS	<2.4	<1.1	<5.0	NS	<5.0	NS	<5.0	NS	<5.0	NS	<4.0	NS	<4.0	NS
n-Butylbenzene	-	NCS	104-51-8	<1.00	NS	<0.13	<0.16	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
sec-Butylbenzene	-	NCS	135-98-8	<1.00	NS	<0.12	<0.19	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
tert-Butylbenzene	-	NCS	98-06-6	<1.00	NS	<0.15	<0.22	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Carbon Disulfide	700	HRL_{93}	75-15-0	NA	NS	<0.37	<0.30	NA	NS	NA	NS	NA	NS	NA	NS	NA	NA	NA	NA
Carbon Tetrachloride	1	HRL_{13}	56-23-5	<1.00	NS	<0.20	<0.20	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Chlorobenzene	100	HRL_{93}	108-90-7	<1.00	NS	<0.14	<0.11	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Chloroethane	-	NCS	75-00-3	<5.00	NS	<0.44	<0.34	<1.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<1.0	NS	<1.0	NS
Chloroform	30	HRL	67-66-3	<5.00	NS	<0.46	<0.21	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Chloromethane	-	NCS	74-87-3	<2.50	NS	<1.1	<0.25	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
2-Chlorotoluene	-	NCS	95-49-8	<1.00	NS	<0.20	<0.30	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
4-Chlorotoluene	-	NCS	106-43-4	<1.00	NS	<0.13	<0.26	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2-Dibromo-3-chloropropane	-	NCS	96-12-8	<5.00	NS	<0.0036	<0.0011	<10.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
Dibromochloromethane	10	HRL_{93}	124-48-1	<1.00	NS	<0.13	<0.048	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2-Dibromoethane (EDB)	0.004	HRL_{93}	106-93-4	<1.00	NS	<0.0039	<0.0016	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Dibromomethane	-	NCS	74-95-3	<1.00	NS	<0.50	<0.19	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,2-Dichlorobenzene	600	HRL_{93}	95-50-1	<1.00	NS	<0.21	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,3-Dichlorobenzene	-	NCS	541-73-1	<1.00	NS	<0.16	<0.12	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,4-Dichlorobenzene	10	HRL_{94}	106-46-7	<1.00	NS	<0.10	<0.21	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Dichlorodifluoromethane	700	HRL_{11}	75-71-8	<5.00	NS	<0.31	<0.23	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1-Dichloroethane (DCA)	80	RAA_{16}	75-34-3	**2.69**	NS	**3.1**	**2.6**	**3.1**	NS	**2.7**	NS	<1.0	NS	**4.1**	NS	**4.4**	NS	**4.0**	NS
1,2-Dichloroethane	1	HRL_{13}	107-06-2	<1.00	NS	<0.32	**0.19** J	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1-Dichloroethene (DCE)	200	HRL_{11}	75-35-4	<1.00	NS	**0.18** J	<0.28	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
cis-1,2-Dichloroethylene (cis DCE)	6	HBV_{14}	156-59-2	**71.7**	NS	**68.5**	**77.1**	**99.2**	NS	**87.9**	NS	**10.4**	NS	**113**	NS	**124**	NS	**130**	NS
trans-1,2-Dichloroethylene (trans DCE)	40	HRL_{13}	156-60-5	**1.45**	NS	**1.3**	**5.6**	**2.2**	NS	**2.5**	NS	**1.5**	NS	**5.3**	NS	**2.7**	NS	<4.0	NS
Dichlorofluoromethane	30	RAA_{15}	75-43-4	<5.00	NS	<0.38	<0.21	<1.0	NS	<1.0	NS	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2-Dichloropropane	5	HRL_{94}	78-87-5	<1.00	NS	<0.62	<0.22	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,3-Dichloropropane	-	NCS	142-28-9	<1.00	NS	<0.13	<0.096	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
2,2-Dichloropropane	-	NCS	594-20-7	<1.00	NS	<0.40	<0.13	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,1-Dichloropropene	-	NCS	563-58-6	<1.00	NS	<0.18	<0.23	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
cis-1,3-Dichloropropene	-	NCS	10061-01-5	<1.00	NS	<0.12	<0.15	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
trans-1,3-Dichloropropene	-	NCS	10061-02-6	<1.00	NS	<0.14	<0.15	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
Diethyl ether (Ethyl ether)	200	RAA_{16}	60-29-7	<1.00	NS	<1.3	<0.19	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,4-Dioxane	1	HRL_{13}	123-91-1	NA	NS	**3.90**	**5.3**	NA	NS	NA	NS	NA	NS	NA	NS	NA	NA	NA	NA
Ethylbenzene	50	HRL_{11}	100-41-4	<1.00	NS	<0.14	<0.15	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Hexachloro-1,3-butadiene	1	HRL_{93}	87-68-3	<1.00	NS	<0.48	<0.18	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<5.0	NS	<5.0	NS
2-Hexanone	-	NCS	591-78-6	NA	NS	<2.5	<0.19	NA	NS	NA	NS	NA	NS	NA	NS	NA	NA	NA	NA
Isopropylbenzene (Cumene)	300	HRL_{93}	98-82-8	<1.00	NS	<0.17	<0.25	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
p-Isopropyltoluene	-	NCS	99-87-6	<1.00	NS	<0.14	<0.19	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Methylene Chloride	5	HRL_{MCL}	75-09-2	<5.00	NS	<1.2	<0.29	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
4-Methyl-2-pentanone (MIBK)	300	HRL_{94}	108-10-1	<10.0	NS	<0.55	<0.43	<5.0	NS	<5.0	NS	<5.0	NS	<5.0	NS	<4.0	NS	<4.0	NS
Methyl-tert-butyl ether	60	RAA_{13}	1634-04-4	<1.00	NS	<0.40	<0.15	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Naphthalene	70	HRL_{13}	91-20-3	<5.00	NS	<0.42	<0.20	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
n-Propylbenzene	-	NCS	103-65-1	<1.00	NS	<0.15	<0.23	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Styrene	-	NCS	100-42-5	<1.00	NS	<0.14	<0.29	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1,1,2-Tetrachloroethane	70	HRL_{93}	630-20-6	<1.00	NS	<0.14	<0.064	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1,2,2-Tetrachloroethane	2	HRL_{94}	79-34-5	<1.00	NS	<0.19	<0.22	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Tetrachloroethylene (PCE)	4	HBV_{14}	127-18-4	<1.00	NS	<0.16	**0.69** J	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	**3.0**	NS	**1.6**	NS
Tetrahydrofuran	600	HBV_{16}	109-99-9	<5.00	NS	<4.3	<1.5	<10.0	NS	<10.0	NS	<10.0	NS	<10.0	NS	<10.0	NS	<10.0	NS
Toluene	200	HRL_{11}	108-88-3	<1.00	NS	<0.17	<0.14	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2,3-Trichlorobenzene	-	NCS	87-61-6	<1.00	NS	<0.14	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2,4-Trichlorobenzene	4	HRL_{13}	120-82-1	<1.00	NS	<0.18	<0.21	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1,1-Trichloroethane	9,000	HRL_{09}	71-55-6	<1.00	NS	<0.15	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1,2-Trichloroethane	3	HRL_{93}	79-00-5	<1.00	NS	<0.22	<0.15	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Trichloroethylene (TCE)	0.4	HRL_{15}	79-01-6	**0.536** J	NS	**0.42**	**1.2**	**0.62**	NS	**0.45**	NS	<0.40	NS	**0.88**	NS	**1.4**	NS	**2.2**	NS
Trichlorofluoromethane	2,000	HRL_{93}	75-69-4	<5.00	NS	<0.13	<0.33	<1.0	NS	<1.0	NS	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2,3-Trichloropropane	0.003	HRL_{13}	96-18-4	<2.50	NS	<0.66	<0.28	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,1,2-Trichlorotrifluoroethane	200,000	HRL_{93}	76-13-1	<1.00	NS	<0.28	<0.32	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2,4-Trimethylbenzene	100	RAA_{10}	95-63-6	<1.00	NS	<0.14	<0.18	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,3,5-Trimethylbenzene	100	HRL_{09}	108-67-8	<1.00	NS	<0.18	<0.27	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Vinyl chloride	0.2	HRL_{09}	75-01-4	**4.8**	NS	**5.4**	**3.2**	**4.4**	NS	**2.9**	NS	<0.40	NS	**1.7**	NS	**1.1**	NS	**0.94**	NS
Xylene (Total)	300	HRL_{11}	1330-20-7	<3.00	NS	<0.24	<0.32	<3.0	NS	<3.0	NS	<3.0	NS	<3.0	NS	<3.0	NS	<3.0	NS
m&p-Xylene	300	HRL_{11}	179601-23-1	NA	NS	<0.24	<0.11	NA	NS	NA	NS	NA	NS	NA	NS	<2.0	NS	<2.0	NS
o-Xylene	300	HRL_{11}	95-47-6	NA	NS	<0.17	<0.20	NA	NS	NA	NS	NA	NS	NA	NS	<1.0	NS	<1.0	NS
Total VOCs				**81.2**	**0.0**	**82.8**	**95.9**	**109.5**	**0.0**	**96.5**	**0.0**	**11.9**	**0.0**	**125.0**	**0.0**	**136.6**	**0.0**	**138.7**	**0.0**

* Subscripts either indicate the last two digits of the year the standard was developed or is based on a US EPA Maximum Contaminant Level (MCL)

HBV: Health Based Value

HRL: Health Risk Limit

RAA: Risk Assessment Advice

MDH: Minnesota Department of Health

NA: Not Analyzed

NCS: No MDH Compliance Standard

NS: Not Sampled

U: The analyte was not detected above the laboratory reporting limit or method detection limit

J: Estimated value, the value was between the Method Detection Limit and the lab reporting limit

J_{11}: Estimated value, the method blank was >reporting limit; the sample was <10X the blank result, the data may be baised high

BOLD Parameter detected above laboratory reporting limit

BOLD Parameter detected above MDH Compliance Standards

Table 2B

Deep Zone Quaternary Monitoring Well
VOC Concentrations
Kurt Manufacturing Company
5280 Main Street NE
Minneapolis, Minnesota

Sample ID / Collected Date	MDH Compliance Standards*		CAS Number	RW-C Oct-18	RW-C Jun-18	RW-C Oct-17	RW-C Jun-17	RW-C Oct-16	RW-C May-16	RW-C Oct-15	RW-C May-15	RW-C Nov-14	RW-C May-14	RW-C Oct-13	RW-C May-13	RW-C Oct-12	RW-C May-12	RW-C Oct-11	RW-C May-11
Acetone	4,000	HRL_{11}	67-64-1	<50.0	<18.5	<44.2	20 U	<40.0	<20.0	<100	<100	<20.0	<200	<200	<200	<250	<250	<250	<125
Allyl chloride	30	HRL_{94}	107-05-1	<5.00	<0.58	<5.0	<0.25	<8.0	<4.0	<20.0	<20.0	<4.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<20.0
Benzene	2	HRL_{09}	71-43-2	<1.00	<0.20	<1.7	<0.16	<2.0	<1.0	<5.0	<5.0	<1.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
Bromobenzene	-	NCS	108-86-1	<1.00	<0.41	<0.78	<0.34	<2.0	<1.0	<5.0	<5.0	<1.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
Bromochloromethane	-	NCS	74-97-5	<5.00	<0.55	<1.9	<0.19	<2.0	<1.0	<5.0	<5.0	<1.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
Bromodichloromethane	6	HRL_{93}	75-27-4	<1.00	<0.43	<1	<0.068	<2.0	<1.0	<5.0	<5.0	<1.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
Bromoform	40	HRL_{93}	75-25-2	<1.00	<1.6	<5.2	<0.27	<8.0	<4.0	<20.0	<20.0	<4.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<20.0
Bromomethane	10	HRL_{93}	74-83-9	<5.00	<3.6	<7.7	<0.44	<8.0	<4.0	<20.0	<20.0	<4.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<20.0
2-Butanone (MEK)	4,000	HRL_{94}	78-93-3	<10.0	<2.0	<12.1	<1.1	<10.0	<5.0	<25.0	<25.0	<5.0	<50.0	<50.0	<50.0	<40.0	<40.0	<40.0	<20.0
n-Butylbenzene	-	NCS	104-51-8	<1.00	<0.48	<0.66	<0.16	<8.0	<1.0	<5.0	<5.0	<1.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
sec-Butylbenzene	-	NCS	135-98-8	<1.00	<0.30	<0.62	<0.19	<8.0	<1.0	<5.0	<5.0	<1.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
tert-Butylbenzene	-	NCS	98-06-6	<1.00	<0.30	<0.74	<0.22	<2.0	<1.0	<5.0	<5.0	<1.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
Carbon Disulfide	700	HRL_{93}	75-15-0	NA	NA	<1.9	<0.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	1	HRL_{13}	56-23-5	<1.00	<0.38	<1.0	<0.20	<8.0	<1.0	<5.0	<5.0	<1.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
Chlorobenzene	100	HRL_{93}	108-90-7	<1.00	<0.34	<0.68	<0.11	<2.0	<1.0	<5.0	<5.0	<1.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
Chloroethane	-	NCS	75-00-3	<5.00	<0.98	<2.2	<0.34	<2.0	<1.0	<20.0	<5.0	<4.0	<10.0	<40.0	<40.0	<10.0	<10.0	<10.0	<5.0
Chloroform	30	HRL	67-66-3	<5.00	<0.90	<2.3	<0.21	<2.0	**4.7**	<5.0	<5.0	<1.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
Chloromethane	-	NCS	74-87-3	<2.50	<0.31	<5.4	<0.25	<8.0	<4.0	<20.0	<20.0	<4.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<20.0
2-Chlorotoluene	-	NCS	95-49-8	<1.00	<0.33	<1.0	<0.30	<2.0	<1.0	<5.0	<5.0	<1.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
4-Chlorotoluene	-	NCS	106-43-4	<1.00	<0.27	<0.66	<0.26	<2.0	<1.0	<5.0	<5.0	<1.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
1,2-Dibromo-3-chloropropane	-	NCS	96-12-8	<5.00	<3.3	<0.0036	<0.0011	<20.0	<4.0	<20.0	<20.0	<4.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<20.0
Dibromochloromethane	10	HRL_{93}	124-48-1	<1.00	<0.25	<0.67	<0.048	<8.0	<1.0	<5.0	<5.0	<1.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
1,2-Dibromoethane (EDB)	0.004	HRL_{93}	106-93-4	<1.00	<0.48	<0.0039	<0.0016	<2.0	<1.0	<5.0	<5.0	<1.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
Dibromomethane	-	NCS	74-95-3	<1.00	<0.33	<2.5	<0.19	<8.0	<4.0	<20.0	<20.0	<4.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<20.0
1,2-Dichlorobenzene	600	HRL_{93}	95-50-1	<1.00	<0.27	<1.0	<0.17	<2.0	<1.0	<5.0	<5.0	<1.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
1,3-Dichlorobenzene	-	NCS	541-73-1	<1.00	<0.32	<0.8	<0.12	<2.0	<1.0	<5.0	<5.0	<1.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
1,4-Dichlorobenzene	10	HRL_{94}	106-46-7	<1.00	<0.34	<0.52	<0.21	<2.0	<1.0	<5.0	<5.0	<1.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
Dichlorodifluoromethane	700	HRL_{11}	75-71-8	<5.00	<0.47	<1.6	<0.23	<2.0	<1.0	<5.0	<5.0	<1.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
1,1-Dichloroethane (DCA)	80	RAA_{16}	75-34-3	<1.00	<0.34	<0.72	<0.17	<2.0	<1.0	<5.0	<5.0	<1.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
1,2-Dichloroethane	1	HRL_{13}	107-06-2	<1.00	<0.44	<1.6	<0.17	<2.0	<1.0	<5.0	<5.0	<1.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
1,1-Dichloroethene (DCE)	200	HRL_{11}	75-35-4	<1.00	<0.32	<0.9	<0.28	<2.0	<1.0	<5.0	<5.0	<1.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
cis-1,2-Dichloroethylene (cis DCE)	6	HBV_{14}	156-59-2	**0.873** J	**0.82** J	<1.0	**0.63** J	<2.0	**1.4**	<5.0	<5.0	**3.0**	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
trans-1,2-Dichloroethylene (trans DCE)	40	HRL_{13}	156-60-5	<1.00	<0.23	<1.0	<0.16	<2.0	<1.0	<5.0	<5.0	<1.0	<10.0	<10.0	<10.0	<10.0	<10.0	<40.0	<20.0
Dichlorofluoromethane	30	RAA_{15}	75-43-4	<5.00 J_4	<0.28	<1.9	<0.21	<2.0	<1.0	<5.0	<5.0	<4.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
1,2-Dichloropropane	5	HRL_{94}	78-87-5	<1.00	<0.33	<3.1	<0.22	<8.0	<4.0	<20.0	<20.0	<4.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<20.0
1,3-Dichloropropane	-	NCS	142-28-9	<1.00	<0.14	<0.64	<0.096	<2.0	<1.0	<5.0	<5.0	<1.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
2,2-Dichloropropane	-	NCS	594-20-7	<1.00	<0.34	<2.0	<0.13	<8.0	<4.0	<20.0	<20.0	<4.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<20.0
1,1-Dichloropropene	-	NCS	563-58-6	<1.00	<0.40	<0.88	<0.23	<2.0	<1.0	<5.0	<5.0	<1.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
cis-1,3-Dichloropropene	-	NCS	10061-01-5	<1.00	<0.41	<0.58	<0.15	<8.0	<4.0	<20.0	<20.0	<4.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<20.0
trans-1,3-Dichloropropene	-	NCS	10061-02-6	<1.00	<0.36	<0.68	<0.15	<8.0	<4.0	<20.0	<20.0	<4.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<20.0
Diethyl ether (Ethyl ether)	200	RAA_{16}	60-29-7	<1.00	<0.19	<6.6	<0.19	<8.0	<4.0	<20.0	<50.0	<4.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<20.0
1,4-Dioxane	1	HRL_{13}	123-91-1	NA	NA	**0.37** J	<0.36	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	50	HRL_{11}	100-41-4	<1.00	<0.28	<0.68	<0.15	<2.0	<1.0	<5.0	<5.0	<1.0	<10.0	<40.0	<40.0	<10.0	<10.0	<10.0	<5.0
Hexachloro-1,3-butadiene	1	HRL_{93}	87-68-3	<1.00	<0.62	<2.4	<0.18	<8.0	<1.0	<5.0	<5.0	<1.0	<10.0	<50.0	<50.0	<50.0	<50.0	<50.0	<25.0
2-Hexanone	-	NCS	591-78-6	NA	NA	<12.4	<0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene (Cumene)	300	HRL_{93}	98-82-8	<1.00	<0.37	<0.86	<0.25	<2.0	<1.0	<5.0	<5.0	<1.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
p-Isopropyltoluene	-	NCS	99-87-6	<1.00	<0.30	<0.7	<0.19	<8.0	<1.0	<5.0	<5.0	<1.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
Methylene Chloride	5	HRL_{MCL}	75-09-2	<5.00	**2.2** J	<5.8	<0.29	<8.0	<4.0	<20.0	<20.0	<4.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<20.0
4-Methyl-2-pentanone (MIBK)	300	HRL_{94}	108-10-1	<10.0	<0.84	<2.7	<0.43	<10.0	<5.0	<25.0	<25.0	<5.0	<50.0	<50.0	<50.0	<40.0	<40.0	<40.0	<20.0
Methyl-tert-butyl ether	60	RAA_{13}	1634-04-4	<1.00	<0.32	<2.0	<0.15	<2.0	<1.0	<5.0	<5.0	<1.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
Naphthalene	70	HRL_{13}	91-20-3	<5.00	<0.96	<2.1	<0.20	<8.0	<4.0	<20.0	<20.0	<4.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<20.0
n-Propylbenzene	-	NCS	103-65-1	<1.00	<0.20	<0.74	<0.23	<2.0	<1.0	<5.0	<5.0	<1.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
Styrene	-	NCS	100-42-5	<1.00	<0.37	<0.72	<0.29	<2.0	<1.0	<5.0	<5.0	<1.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
1,1,1,2-Tetrachloroethane	70	HRL_{93}	630-20-6	<1.00	<0.39	<0.72	<0.064	<8.0	<1.0	<5.0	<5.0	<1.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
1,1,2,2-Tetrachloroethane	2	HRL_{94}	79-34-5	<1.00	<0.34	<0.94	<0.22	<2.0	<1.0	<5.0	<5.0	<1.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
Tetrachloroethylene (PCE)	4	HBV_{14}	127-18-4	**410.0**	**825**	**669.0**	**435**	**262**	**1050**	**558**	**3820**	**1920**	**633**	**616**	**1170**	**1220**	**1310**	**961**	**694**
Tetrahydrofuran	600	HBV_{16}	109-99-9	<5.00	<4.4	<21.6	<1.5	<20.0	<10.0	<50.0	<50.0	<10.0	<100	<100	<100	<100	<100	<100	<50.0
Toluene	200	HRL_{11}	108-88-3	**5.8**	<0.17	<0.86	<0.14	<2.0	<1.0	<5.0	<5.0	<1.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
1,2,3-Trichlorobenzene	-	NCS	87-61-6	<1.00	<0.41	<0.72	<0.17	<2.0	<1.0	<5.0	<5.0	<1.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	**5.0**
1,2,4-Trichlorobenzene	4	HRL_{13}	120-82-1	<1.00	<0.40	<0.89	<0.21	<2.0	<1.0	<5.0	<5.0	<1.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
1,1,1-Trichloroethane	9,000	HRL_{09}	71-55-6	<1.00	<0.27	<0.76	<0.17	<2.0	<1.0	<5.0	<5.0	<1.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
1,1,2-Trichloroethane	3	HRL_{93}	79-00-5	<1.00	<0.36	<1.1	<0.15	<2.0	<1.0	<5.0	<5.0	<1.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
Trichloroethylene (TCE)	0.4	HRL_{15}	79-01-6	**4.4**	**6.5**	**5.4**	**3.9**	**2.3**	**10.2**	**3.7**	**21.6**	**14.0**	<4.0	**4.2**	<10.0	<10.0	<10.0	<10.0	<5.0
Trichlorofluoromethane	2,000	HRL_{93}	75-69-4	<5.00	<0.46	<0.64	<0.33	<2.0	<1.0	<5.0	<5.0	<4.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
1,2,3-Trichloropropane	0.003	HRL_{13}	96-18-4	<2.50	<0.51	<3.3	<0.28	<8.0	<4.0	<20.0	<20.0	<4.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<20.0
1,1,2-Trichlorotrifluoroethane	200,000	HRL_{93}	76-13-1	<1.00	<0.43	<1.4	<0.32	<2.0	<1.0	<5.0	<5.0	<1.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
1,2,4-Trimethylbenzene	100	RAA_{10}	95-63-6	<1.00	<0.39	<0.68	<0.18	<2.0	<1.0	<5.0	<5.0	<1.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
1,3,5-Trimethylbenzene	100	HRL_{09}	108-67-8	<1.00	<0.24	<0.9	<0.27	<2.0	<1.0	<5.0	<5.0	<1.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
Vinyl chloride	0.2	HRL_{09}	75-01-4	<1.00	<0.18	<0.48	<0.069	<0.40	<0.40	<2.0	<2.0	<0.40	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<2.0
Xylene (Total)	300	HRL_{11}	1330-20-7	<3.00	<0.62	<1.2	<0.32	<6.0	<3.0	<15.0	<15.0	<3.0	<30.0	<30.0	<30.0	<30.0	<30.0	<30.0	<15.0
m&p-Xylene	300	HRL_{11}	179601-23-1	NA	NA	<1.2	<0.11	NA	NA	NA	NA	NA	NA	NA	NA	<20.0	<20.0	<20.0	<10.0
o-Xylene	300	HRL_{11}	95-47-6	NA	NA	<0.84	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	<10.0	<10.0	<10.0	<5.0
Total VOCs				**421.0**	**834.5**	**674.8**	**439.5**	**264.3**	**1066.3**	**561.7**	**3841.6**	**1937.0**	**633.0**	**620.2**	**1170.0**	**1220.0**	**1310.0**	**961.0**	**699.0**

* Subscripts either indicate the last two digits of the year the standard was developed or is based on a US EPA Maximum Contaminant Level (MCL)

HBV: Health Based Value

HRL: Health Risk Limit

RAA: Risk Assessment Advice

MDH: Minnesota Department of Health

NA: Not Analyzed

NCS: No MDH Compliance Standard

NS: Not Sampled

U: The analyte was not detected above the laboratory reporting limit or method detection limit

J: Estimated value, the value was between the Method Detection Limit and the lab reporting limit

J_{11}: Estimated value, the method blank was >reporting limit; the sample was <10X the blank result, the data may be baised high

BOLD Parameter detected above laboratory reporting limit

BOLD Parameter detected above MDH Compliance Standards

Table 2C

Prairie du Chien Monitoring Well
VOC Concentrations
Kurt Manufacturing Company
5280 Main Street NE
Minneapolis, Minnesota

Sample ID Collected Date	MDH Compliance Standards*		CAS Number	PC-1 Oct-18	PC-1 Jun-18	PC-1 Oct-17	PC-1 Jun-17	PC-1 Oct-16	PC-1 May-16	PC-1 Oct-15	PC-1 May-15	PC-1 Nov-14	PC-1 May-14	PC-1 Oct-13	PC-1 May-13	PC-1 Oct-11	PC-1 May-11
Acetone	4,000	HRL_{11}	67-64-1	<50.0	NS	<8.8	20 U	<20.0	NS	<20.0	NS	<20.0	NS	<20.0	NS	<25.0	NS
Allyl chloride	30	HRL_{94}	107-05-1	<5.00	NS	<1.0	<0.25	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
Benzene	2	HRL_{09}	71-43-2	<1.00	NS	<0.34	<0.16	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Bromobenzene	-	NCS	108-86-1	<1.00	NS	<0.16	<0.34	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Bromochloromethane	-	NCS	74-97-5	<5.00	NS	<0.38	<0.19	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Bromodichloromethane	6	HRL_{93}	75-27-4	<1.00	NS	<0.20	<0.068	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Bromoform	40	HRL_{93}	75-25-2	<1.00	NS	<1.0	<0.27	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
Bromomethane	10	HRL_{93}	74-83-9	<5.00	NS	<1.5	<0.44	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
2-Butanone (MEK)	4,000	HRL_{94}	78-93-3	<10.0	NS	<2.4	<1.1	<5.0	NS	<5.0	NS	<5.0	NS	<5.0	NS	<4.0	NS
n-Butylbenzene	-	NCS	104-51-8	<1.00	NS	<0.13	<0.16	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
sec-Butylbenzene	-	NCS	135-98-8	<1.00	NS	<0.12	<0.19	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
tert-Butylbenzene	-	NCS	98-06-6	<1.00	NS	<0.15	<0.22	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Carbon Disulfide	700	HRL_{93}	75-15-0	NA	NS	<0.37	<0.30	NA	NS	NA	NA	NA	NS	NA	NS	NA	NS
Carbon Tetrachloride	1	HRL_{13}	56-23-5	<1.00	NS	<0.20	<0.20	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Chlorobenzene	100	HRL_{93}	108-90-7	<1.00	NS	<0.14	<0.11	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Chloroethane	-	NCS	75-00-3	<5.00	NS	<0.44	<0.34	<1.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<1.0	NS
Chloroform	30	HRL	67-66-3	<5.00	NS	<0.46	<0.21	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Chloromethane	-	NCS	74-87-3	<2.50	NS	<1.1	<0.25	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
2-Chlorotoluene	-	NCS	95-49-8	<1.00	NS	<0.20	<0.30	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
4-Chlorotoluene	-	NCS	106-43-4	<1.00	NS	<0.13	<0.26	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2-Dibromo-3-chloropropane	-	NCS	96-12-8	<5.00	NS	<0.0036	<0.0011	<10.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
Dibromochloromethane	10	HRL_{93}	124-48-1	<1.00	NS	<0.13	<0.048	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2-Dibromoethane (EDB)	0.004	HRL_{93}	106-93-4	<1.00	NS	<0.0039	<0.0016	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Dibromomethane	-	NCS	74-95-3	<1.00	NS	<0.50	<0.19	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,2-Dichlorobenzene	600	HRL_{93}	95-50-1	<1.00	NS	<0.21	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,3-Dichlorobenzene	-	NCS	541-73-1	<1.00	NS	<0.16	<0.12	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,4-Dichlorobenzene	10	HRL_{94}	106-46-7	<1.00	NS	<0.10	<0.21	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Dichlorodifluoromethane	700	HRL_{11}	75-71-8	<5.00	NS	<0.31	<0.23	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1-Dichloroethane (DCA)	80	RAA_{16}	75-34-3	<1.00	NS	<0.14	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2-Dichloroethane	1	HRL_{13}	107-06-2	<1.00	NS	<0.32	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1-Dichloroethene (DCE)	200	HRL_{11}	75-35-4	<1.00	NS	<0.18	<0.28	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
cis-1,2-Dichloroethylene (cis DCE)	6	HBV_{14}	156-59-2	<1.00	NS	<0.20	<0.12	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
trans-1,2-Dichloroethylene (trans DCE)	40	HRL_{13}	156-60-5	<1.00	NS	<0.21	<0.16	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<4.0	NS
Dichlorofluoromethane	30	RAA_{15}	75-43-4	<5.00	NS	<0.38	<0.21	<1.0	NS	<1.0	NS	<4.0	NS	<1.0	NS	<1.0	NS
1,2-Dichloropropane	5	HRL_{94}	78-87-5	<1.00	NS	<0.62	<0.22	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,3-Dichloropropane	-	NCS	142-28-9	<1.00	NS	<0.13	<0.096	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
2,2-Dichloropropane	-	NCS	594-20-7	<1.00	NS	<0.40	<0.13	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,1-Dichloropropene	-	NCS	563-58-6	<1.00	NS	<0.18	<0.23	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
cis-1,3-Dichloropropene	-	NCS	10061-01-5	<1.00	NS	<0.12	<0.15	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
trans-1,3-Dichloropropene	-	NCS	10061-02-6	<1.00	NS	<0.14	<0.15	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
Diethyl ether (Ethyl ether)	200	RAA_{16}	60-29-7	<1.00	NS	<1.3	<0.19	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,4-Dioxane	1	HRL_{13}	123-91-1	NA	NS	**0.53** J	**0.42** J	NA	NS	NA	NA	NA	NS	NA	NS	NA	NS
Ethylbenzene	50	HRL_{11}	100-41-4	<1.00	NS	<0.14	<0.15	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Hexachloro-1,3-butadiene	1	HRL_{93}	87-68-3	<1.00	NS	<0.48	<0.18	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<5.0	NS
2-Hexanone	-	NCS	591-78-6	NA	NS	<2.5	<0.19	NA	NS	NA	NA	NA	NS	NA	NS	NA	NS
Isopropylbenzene (Cumene)	300	HRL_{93}	98-82-8	<1.00	NS	<0.17	<0.25	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
p-Isopropyltoluene	-	NCS	99-87-6	<1.00	NS	<0.14	<0.19	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Methylene Chloride	5	HRL_{MCL}	75-09-2	<5.00	NS	<1.2	<0.29	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
4-Methyl-2-pentanone (MIBK)	300	HRL_{94}	108-10-1	<10.0	NS	<0.55	<0.43	<5.0	NS	<5.0	NS	<5.0	NS	<5.0	NS	<4.0	NS
Methyl-tert-butyl ether	60	RAA_{13}	1634-04-4	<1.00	NS	<0.40	<0.15	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Naphthalene	70	HRL_{13}	91-20-3	<5.00	NS	<0.42	<0.20	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
n-Propylbenzene	-	NCS	103-65-1	<1.00	NS	<0.15	<0.23	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Styrene	-	NCS	100-42-5	<1.00	NS	<0.14	<0.29	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1,1,2-Tetrachloroethane	70	HRL_{93}	630-20-6	<1.00	NS	<0.14	<0.064	<4.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1,2,2-Tetrachloroethane	2	HRL_{94}	79-34-5	<1.00	NS	<0.19	<0.22	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Tetrachloroethylene (PCE)	4	HBV_{14}	127-18-4	<1.00	NS	<0.16	<0.25	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Tetrahydrofuran	600	HBV_{16}	109-99-9	<5.00	NS	<4.3	<1.5	<10.0	NS	<10.0	NS	<10.0	NS	<10.0	NS	<10.0	NS
Toluene	200	HRL_{11}	108-88-3	<1.00	NS	<0.17	<0.14	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2,3-Trichlorobenzene	-	NCS	87-61-6	<1.00	NS	<0.14	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2,4-Trichlorobenzene	4	HRL_{13}	120-82-1	<1.00	NS	<0.18	<0.21	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1,1-Trichloroethane	9,000	HRL_{09}	71-55-6	<1.00	NS	<0.15	<0.17	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,1,2-Trichloroethane	3	HRL_{93}	79-00-5	<1.00	NS	<0.22	<0.15	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Trichloroethylene (TCE)	0.4	HRL_{15}	79-01-6	<1.00	NS	<0.18	<0.052	<0.40	NS	<0.40	NS	<0.40	NS	<0.40	NS	<1.0	NS
Trichlorofluoromethane	2,000	HRL_{93}	75-69-4	<5.00	NS	<0.13	<0.33	<1.0	NS	<1.0	NS	<4.0	NS	<1.0	NS	<1.0	NS
1,2,3-Trichloropropane	0.003	HRL_{13}	96-18-4	<2.50	NS	<0.66	<0.28	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS	<4.0	NS
1,1,2-Trichlorotrifluoroethane	200,000	HRL_{93}	76-13-1	<1.00	NS	<0.28	<0.32	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,2,4-Trimethylbenzene	100	RAA_{10}	95-63-6	<1.00	NS	<0.14	<0.18	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
1,3,5-Trimethylbenzene	100	HRL_{09}	108-67-8	<1.00	NS	<0.18	<0.27	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS	<1.0	NS
Vinyl chloride	0.2	HRL_{09}	75-01-4	<1.00	NS	<0.096	<0.069	<0.20	NS	<0.40	NS	<0.40	NS	<0.40	NS	<0.40	NS
Xylene (Total)	300	HRL_{11}	1330-20-7	<3.00	NS	<0.24	<0.32	<3.0	NS	<3.0	NS	<3.0	NS	<3.0	NS	<3.0	NS
m&p-Xylene	300	HRL_{11}	179601-23-1	NA	NS	<0.24	<0.11	NA	NA	NA	NA	NA	NA	NA	NS	<2.0	NS
o-Xylene	300	HRL_{11}	95-47-6	NA	NS	<0.17	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	<1.0	NS
Total VOCs				**0.0**	**0.0**	**0.5**	**0.4**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

* Subscripts either indicate the last two digits of the year the standard was developed or is based on a US EPA Maximum Contaminant Level (MCL)
HBV: Health Based Value
HRL: Health Risk Limit
RAA: Risk Assessment Advice
MDH: Minnesota Department of Health
NA: Not Analyzed
NCS: No MDH Compliance Standard
NS: Not Sampled
U: The analyte was not detected above the laboratory reporting limit or method detection limit
J: Estimated value, the value was between the Method Detection Limit and the lab reporting limit
J_{11}: Estimated value, the method blank was >reporting limit; the sample was <10X the blank result, the data may be baised high
BOLD Parameter detected above laboratory reporting limit

BOLD Parameter detected above MDH Compliance Standards

Table 2C

Prairie du Chien Monitoring Well
VOC Concentrations
Kurt Manufacturing Company
5280 Main Street NE
Minneapolis, Minnesota

Sample ID / Collected Date	MDH Compliance Standards*		CAS Number	PC-2 Oct-18	PC-2 Jun-18	PC-2 Oct-17	PC-2 Jun-17	PC-2 Oct-16	PC-2 May-16	PC-2 Oct-15	PC-2 May-15	PC-2 Nov-14	PC-2 May-14	PC-2 Oct-13	PC-2 May-13	PC-2 Oct-12	PC-2 May-12	PC-2 Oct-11	PC-2 May-11
Acetone	4,000	HRL_{11}	67-64-1	<50.0	<9.2	<8.8	20 U	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<25.0	<25.0	<25.0	<25.0
Allyl chloride	30	HRL_{94}	107-05-1	<5.00	<0.29	<1.0	<0.25	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Benzene	2	HRL_{09}	71-43-2	<1.00	<0.10	<0.34	<0.16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromobenzene	-	NCS	108-86-1	<1.00	<0.21	<0.16	<0.34	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromochloromethane	-	NCS	74-97-5	<5.00	<0.27	<0.38	<0.19	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromodichloromethane	6	HRL_{93}	75-27-4	<1.00	<0.22	<0.20	<0.068	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromoform	40	HRL_{93}	75-25-2	<1.00	<0.80	<1.0	<0.27	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Bromomethane	10	HRL_{93}	74-83-9	<5.00	<1.8	<1.5	<0.44	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<10.0	<4.0	<4.0	<4.0
2-Butanone (MEK)	4,000	HRL_{94}	78-93-3	<10.0	<0.99	<2.4	<1.1	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<4.0	<4.0	<4.0	<4.0
n-Butylbenzene	-	NCS	104-51-8	<1.00	<0.24	<0.13	<0.16	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
sec-Butylbenzene	-	NCS	135-98-8	<1.00	<0.15	<0.12	<0.19	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
tert-Butylbenzene	-	NCS	98-06-6	<1.00	<0.15	<0.15	<0.22	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon Disulfide	700	HRL_{93}	75-15-0	NA	NA	<0.37	<0.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	1	HRL_{13}	56-23-5	<1.00	<0.19	<0.20	<0.20	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorobenzene	100	HRL_{93}	108-90-7	<1.00	<0.17	<0.14	<0.11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	-	NCS	75-00-3	<5.00	<0.49	<0.44	<0.34	<1.0	<1.0	<4.0	<1.0	<4.0	<1.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0
Chloroform	30	HRL	67-66-3	<5.00	<0.45	<0.46	<0.21	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloromethane	-	NCS	74-87-3	<2.50	<0.16	<1.1	<0.25	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
2-Chlorotoluene	-	NCS	95-49-8	<1.00	<0.16	<0.20	<0.30	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4-Chlorotoluene	-	NCS	106-43-4	<1.00	<0.13	<0.13	<0.26	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dibromo-3-chloropropane	-	NCS	96-12-8	<5.00	<1.7	<0.0035	<0.0011	<10.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Dibromochloromethane	10	HRL_{93}	124-48-1	<1.00	<0.12	<0.13	<0.048	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane (EDB)	0.004	HRL_{93}	106-93-4	<1.00	<0.24	<0.0038	<0.0016	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dibromomethane	-	NCS	74-95-3	<1.00	<0.16	<0.50	<0.19	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
1,2-Dichlorobenzene	600	HRL_{93}	95-50-1	<1.00	<0.14	<0.21	<0.17	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3-Dichlorobenzene	-	NCS	541-73-1	<1.00	<0.16	<0.16	<0.12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dichlorobenzene	10	HRL_{94}	106-46-7	<1.00	<0.17	<0.10	<0.21	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dichlorodifluoromethane	700	HRL_{11}	75-71-8	<5.00	<0.23	<0.31	<0.23	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane (DCA)	80	RAA_{16}	75-34-3	<1.00	<0.17	<0.14	<0.17	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloroethane	1	HRL_{13}	107-06-2	<1.00	<0.22	<0.32	<0.17	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene (DCE)	200	HRL_{11}	75-35-4	<1.00	<0.16	<0.18	<0.28	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethylene (cis DCE)	6	HBV_{14}	156-59-2	**0.48** J	**0.72** J	**0.49** J	**1.1**	**1.9**	<1.0	**1.1**	**1.5**	<1.0	<1.0	**1.7**	**1.2**	**2.3**	<1.0	**3.9**	**1.2**
trans-1,2-Dichloroethylene (trans DCE)	40	HRL_{13}	156-60-5	<1.00	<0.12	<0.21	<0.16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0	<4.0
Dichlorofluoromethane	30	RAA_{15}	75-43-4	<5.00	<0.14	<0.38	<0.21	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloropropane	5	HRL_{94}	78-87-5	<1.00	<0.16	<0.62	<0.22	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
1,3-Dichloropropane	-	NCS	142-28-9	<1.00	<0.070	<0.13	<0.096	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2,2-Dichloropropane	-	NCS	594-20-7	<1.00	<0.17	<0.40	<0.13	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
1,1-Dichloropropene	-	NCS	563-58-6	<1.00	<0.20	<0.18	<0.23	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,3-Dichloropropene	-	NCS	10061-01-5	<1.00	<0.20	<0.12	<0.15	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
trans-1,3-Dichloropropene	-	NCS	10061-02-6	<1.00	<0.18	<0.14	<0.15	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Diethyl ether (Ethyl ether)	200	RAA_{16}	60-29-7	<1.00	<0.095	<1.3	<0.19	<4.0	<4.0	<4.0	<10.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
1,4-Dioxane	1	HRL_{13}	123-91-1	NA	NA	**6.4**	**2.7** J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	50	HRL_{11}	100-41-4	<1.00	<0.14	<0.14	<0.15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Hexachloro-1,3-butadiene	1	HRL_{93}	87-68-3	<1.00	<0.31	<0.48	<0.18	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Hexanone	-	NCS	591-78-6	NA	NA	<2.5	<0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene (Cumene)	300	HRL_{93}	98-82-8	<1.00	<0.18	<0.17	<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
p-Isopropyltoluene	-	NCS	99-87-6	<1.00	<0.15	<0.14	<0.19	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	5	HRL_{MCL}	75-09-2	<5.00	<0.98	<1.2	<0.29	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
4-Methyl-2-pentanone (MIBK)	300	HRL_{94}	108-10-1	<10.0	<0.42	<0.55	<0.43	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<4.0	<4.0	<4.0	<4.0
Methyl-tert-butyl ether	60	RAA_{13}	1634-04-4	<1.00	<0.16	<0.40	<0.15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Naphthalene	70	HRL_{13}	91-20-3	<5.00	<0.48	<0.42	<0.20	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
n-Propylbenzene	-	NCS	103-65-1	<1.00	<0.10	<0.15	<0.23	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Styrene	-	NCS	100-42-5	<1.00	<0.19	<0.14	<0.29	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1,2-Tetrachloroethane	70	HRL_{93}	630-20-6	<1.00	<0.20	<0.14	<0.064	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane	2	HRL_{94}	79-34-5	<1.00	<0.17	<0.19	<0.22	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethylene (PCE)	4	HBV_{14}	127-18-4	**2.93**	**13.6**	**5.3**	**24.2**	**29.4**	**21.7**	**38.8**	**69.6**	<1.0	**6.1**	**82.4**	**124**	**82.3**	<1.0	**201**	**35.0**
Tetrahydrofuran	600	HBV_{15}	109-99-9	<5.00	<2.2	<4.3	<1.5	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Toluene	200	HRL_{11}	108-88-3	<1.00	<0.083	<0.17	<0.14	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichlorobenzene	-	NCS	87-61-6	<1.00	<0.21	<0.14	<0.17	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	4	HRL_{13}	120-82-1	<1.00	<0.20	<0.18	<0.21	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane	9,000	HRL_{09}	71-55-6	<1.00	<0.14	<0.15	<0.17	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	3	HRL_{93}	79-00-5	<1.00	<0.18	<0.22	<0.15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethylene (TCE)	0.4	HRL_{15}	79-01-6	**0.90** J	**2.0**	**1.2**	**2.5**	**3.5**	**1.5**	**2.7**	**3.7**	<0.40	**0.43**	**3.9**	**2.4**	**4.7**	<1.0	**8.8**	**2.1**
Trichlorofluoromethane	2,000	HRL_{93}	75-69-4	<5.00	<0.23	<0.13	<0.33	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichloropropane	0.003	HRL_{13}	96-18-4	<2.50	<0.26	<0.66	<0.28	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
1,1,2-Trichlorotrifluoroethane	200,000	HRL_{93}	76-13-1	<1.00	<0.22	<0.28	<0.32	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	100	RAA_{10}	95-63-6	<1.00	<0.20	<0.14	<0.18	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	100	HRL_{09}	108-67-8	<1.00	<0.12	<0.18	<0.27	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl chloride	0.2	HRL_{09}	75-01-4	<1.00	<0.092	<0.096	<0.069	<0.20	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Xylene (Total)	300	HRL_{11}	1330-20-7	<3.00	<0.31	<0.24	<0.32	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
m&p-Xylene	300	HRL_{11}	179601-23-1	NA	NA	<0.24	<0.11	NA	NA	NA	NA	NA	NA	NA	NA	<2.0	<2.0	<2.0	<2.0
o-Xylene	300	HRL_{11}	95-47-6	NA	NA	<0.17	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0
Total VOCs				**4.3**	**16.3**	**13.4**	**30.5**	**34.8**	**23.2**	**42.6**	**74.8**	**0.0**	**6.5**	**88.0**	**127.6**	**89.3**	**0.0**	**213.7**	**38.3**

* Subscripts either indicate the last two digits of the year the standard was developed or is based on a US EPA Maximum Contaminant Level (MCL)
HBV: Health Based Value
HRL: Health Risk Limit
RAA: Risk Assessment Advice
MDH: Minnesota Department of Health
NA: Not Analyzed
NCS: No MDH Compliance Standard
NS: Not Sampled
U: The analyte was not detected above the laboratory reporting limit or method detection lir
J: Estimated value, the value was between the Method Detection Limit and the lab reporting limit
J_{11}: Estimated value, the method blank was >reporting limit; the sample was <10X the blank result, the data may be baised high
BOLD Parameter detected above laboratory reporting limit

BOLD Parameter detected above MDH Compliance Standards

Table 2C

Prairie du Chien Monitoring Well
VOC Concentrations
Kurt Manufacturing Company
5280 Main Street NE
Minneapolis, Minnesota

Sample ID / Collected Date	MDH Compliance Standards*		CAS Number	DPW(BASE) Oct-18	DPW(BASE) Jun-18	DPW(BASE) Oct-17	DPW(BASE) Jun-17	DPW Oct-18	DPW Jun-18	DPW Oct-17	DPW Jun-17	DPW Oct-16	DPW May-16	DPW Oct-15	DPW May-15	DPW Nov-14	DPW May-14	DPW Oct-13	DPW May-13	DPW Oct-12	DPW May-12	DPW Oct-11	DPW May-11
Acetone	4,000	HRL_{11}	67-64-1	NS	NS	<8.8	20 U	<50.0	<9.2	<8.8	<2.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<25.0	<25.0	<25.0	<25.0
Allyl chloride	30	HRL_{94}	107-05-1	NS	NS	<1.0	<0.25	<5.00	<0.29	<1	<0.25	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Benzene	2	HRL_{09}	71-43-2	NS	NS	<0.34	<0.16	<1.00	<0.10	<0.34	<0.16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromobenzene	-	NCS	108-86-1	NS	NS	<0.16	<0.34	<1.00	<0.21	<0.16	<0.34	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromochloromethane	-	NCS	74-97-5	NS	NS	<0.38	<0.19	<5.00	<0.27	<0.38	<0.19	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromodichloromethane	6	HRL_{93}	75-27-4	NS	NS	<0.20	<0.068	<1.00	<0.22	<0.2	<0.068	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromoform	40	HRL_{93}	75-25-2	NS	NS	<1.0	<0.27	<1.00	<0.80	<1	<0.27	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Bromomethane	10	HRL_{93}	74-83-9	NS	NS	<1.5	<0.44	<5.00	<1.8	<1.5	<0.44	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<10.0	<4.0	<4.0	<4.0
2-Butanone (MEK)	4,000	HRL_{94}	78-93-3	NS	NS	<2.4	<1.1	<10.0	<0.99	<2.4	<1.1	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<4.0	<4.0	<4.0	<4.0
n-Butylbenzene	-	NCS	104-51-8	NS	NS	<0.13	<0.16	<1.00	<0.24	<0.13	<0.16	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
sec-Butylbenzene	-	NCS	135-98-8	NS	NS	<0.12	<0.19	<1.00	<0.15	<0.12	<0.19	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
tert-Butylbenzene	-	NCS	98-06-6	NS	NS	<0.15	<0.22	<1.00	<0.15	<0.15	<0.22	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon Disulfide	700	HRL_{93}	75-15-0	NS	NS	<0.37	<0.30	NA	NA	<0.37	<0.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	1	HRL_{13}	56-23-5	NS	NS	<0.20	<0.20	<1.00	<0.19	<0.2	<0.20	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorobenzene	100	HRL_{93}	108-90-7	NS	NS	<0.14	<0.11	<1.00	<0.17	<0.14	<0.11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	-	NCS	75-00-3	NS	NS	<0.44	<0.34	<5.00	<0.49	<0.44	<0.34	<1.0	<1.0	<4.0	<1.0	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0	<1.0
Chloroform	30	HRL	67-66-3	NS	NS	<0.46	<0.21	<5.00	<0.45	<0.46	<0.21	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloromethane	-	NCS	74-87-3	NS	NS	<1.1	<0.25	<2.50	<0.16	<1.1	<0.25	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
2-Chlorotoluene	-	NCS	95-49-8	NS	NS	<0.20	<0.30	<1.00	<0.16	<0.2	<0.30	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4-Chlorotoluene	-	NCS	106-43-4	NS	NS	<0.13	<0.26	<1.00	<0.13	<0.13	<0.26	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dibromo-3-chloropropane	-	NCS	96-12-8	NS	NS	<0.0035	<0.0011	<5.00	<1.7	<0.0036	<0.0011	<10.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Dibromochloromethane	10	HRL_{93}	124-48-1	NS	NS	<0.13	<0.048	<1.00	<0.12	<0.13	<0.048	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane (EDB)	0.004	HRL_{93}	106-93-4	NS	NS	<0.0038	<0.0016	<1.00	<0.24	<0.0039	<0.0016	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dibromomethane	-	NCS	74-95-3	NS	NS	<0.50	<0.19	<1.00	<0.16	<0.5	<0.19	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
1,2-Dichlorobenzene	600	HRL_{93}	95-50-1	NS	NS	<0.21	<0.17	<1.00	<0.14	<0.21	<0.17	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3-Dichlorobenzene	-	NCS	541-73-1	NS	NS	<0.16	<0.12	<1.00	<0.16	<0.16	<0.12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dichlorobenzene	10	HRL_{94}	106-46-7	NS	NS	<0.10	<0.21	<1.00	<0.17	<0.1	<0.21	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dichlorodifluoromethane	700	HRL_{11}	75-71-8	NS	NS	<0.31	<0.23	<5.00	<0.23	<0.31	<0.23	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane (DCA)	80	RAA_{16}	75-34-3	NS	NS	<0.14	<0.17	<1.00	<0.17	<0.14	<0.17	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloroethane	1	HRL_{13}	107-06-2	NS	NS	<0.32	<0.17	<1.00	<0.22	<0.32	<0.17	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene (DCE)	200	HRL_{11}	75-35-4	NS	NS	<0.18	<0.28	<1.00	<0.16	<0.18	<0.28	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethylene (cis DCE)	6	HBV_{14}	156-59-2	NS	NS	**11.3**	**24.6**	**58.1**	**5.1**	**5.5**	**4.7**	**133**	**61.0**	**43.4**	**133**	**111**	**58.5**	**137**	**90.5**	**119**	**104**	**118**	**70**
trans-1,2-Dichloroethylene (trans DCE)	40	HRL_{13}	156-60-5	NS	NS	<0.21	<0.16	<1.00	<0.12	<0.21	<0.16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0	<4.0
Dichlorofluoromethane	30	RAA_{15}	75-43-4	NS	NS	<0.38	<0.21	<5.00	<0.14	<0.38	<0.21	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloropropane	5	HRL_{94}	78-87-5	NS	NS	<0.62	<0.22	<1.00	<0.16	<0.62	<0.22	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
1,3-Dichloropropane	-	NCS	142-28-9	NS	NS	<0.13	<0.096	<1.00	<0.070	<0.13	<0.096	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2,2-Dichloropropane	-	NCS	594-20-7	NS	NS	<0.40	<0.13	<1.00	<0.17	<0.4	<0.13	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
1,1-Dichloropropene	-	NCS	563-58-6	NS	NS	<0.18	<0.23	<1.00	<0.20	<0.18	<0.23	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,3-Dichloropropene	-	NCS	10061-01-5	NS	NS	<0.12	<0.15	<1.00	<0.20	<0.12	<0.15	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
trans-1,3-Dichloropropene	-	NCS	10061-02-6	NS	NS	<0.14	<0.15	<1.00	<0.18	<0.14	<0.15	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Diethyl ether (Ethyl ether)	200	RAA_{16}	60-29-7	NS	NS	<1.3	<0.19	<1.00	<0.095	<1.3	<0.19	<4.0	<4.0	<4.0	<10.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
1,4-Dioxane	1	HRL_{13}	123-91-1	NS	NS	<0.36	<0.36	NA	NA	<0.36	<0.36	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	50	HRL_{11}	100-41-4	NS	NS	<0.14	<0.15	<1.00	<0.14	<0.14	<0.15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Hexachloro-1,3-butadiene	1	HRL_{93}	87-68-3	NS	NS	<0.48	<0.18	<1.00	<0.31	<0.48	<0.18	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Hexanone	-	NCS	591-78-6	NS	NS	<2.5	<0.19	NA	NA	<2.5	<0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene (Cumene)	300	HRL_{93}	98-82-8	NS	NS	<0.17	<0.25	<1.00	<0.18	<0.17	<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
p-Isopropyltoluene	-	NCS	99-87-6	NS	NS	<0.14	<0.19	<1.00	<0.15	<0.14	<0.19	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	5	HRL_{MCL}	75-09-2	NS	NS	<1.2	<0.29	<5.00	<0.98	<1.2	<0.29	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
4-Methyl-2-pentanone (MIBK)	300	HRL_{94}	108-10-1	NS	NS	<0.55	<0.43	<10.0	<0.42	<0.55	<0.43	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<4.0	<4.0	<4.0	<4.0
Methyl-tert-butyl ether	60	RAA_{13}	1634-04-4	NS	NS	<0.40	<0.15	<1.00	<0.16	<0.4	<0.15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Naphthalene	70	HRL_{13}	91-20-3	NS	NS	<0.42	<0.20	<5.00	<0.48	<0.42	<0.20	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
n-Propylbenzene	-	NCS	103-65-1	NS	NS	<0.15	<0.23	<1.00	<0.10	<0.15	<0.23	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Styrene	-	NCS	100-42-5	NS	NS	<0.14	<0.29	<1.00	<0.19	<0.14	<0.29	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1,2-Tetrachloroethane	70	HRL_{93}	630-20-6	NS	NS	<0.14	<0.064	<1.00	<0.20	<0.14	<0.064	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane	2	HRL_{94}	79-34-5	NS	NS	<0.19	<0.22	<1.00	<0.17	<0.19	<0.22	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethylene (PCE)	4	HBV_{14}	127-18-4	NS	NS	<0.16	**0.39** J	**2.1**	<0.17	**0.45** J	<0.25	<1.0	<1.0	<1.0	**2.4**	**1.3**	**1.5**	**1.4**	**2.4**	**4.1**	**12.0**	**26.7**	<1.0
Tetrahydrofuran	600	HBV_{16}	109-99-9	NS	NS	<4.3	<1.5	<5.00	<2.2	<4.3	<1.5	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Toluene	200	HRL_{11}	108-88-3	NS	NS	<0.17	<0.14	<1.00	<0.083	<0.17	<0.14	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichlorobenzene	-	NCS	87-61-6	NS	NS	<0.14	<0.17	<1.00	<0.21	<0.14	<0.17	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	4	HRL_{13}	120-82-1	NS	NS	<0.18	<0.21	<1.00	<0.20	<0.18	<0.21	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane	9,000	HRL_{09}	71-55-6	NS	NS	<0.15	<0.17	<1.00	<0.14	<0.15	<0.17	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	3	HRL_{93}	79-00-5	NS	NS	<0.22	<0.15	<1.00	<0.18	<0.22	<0.15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethylene (TCE)	0.4	HRL_{15}	79-01-6	NS	NS	**1.2**	**2.3**	**8.56**	**0.46**	<0.18	**0.12** J	**1.3**	**10.4**	**6.4**	**29.9**	**16.6**	**5.1**	**22.7**	**29.3**	**44.5**	**27.4**	**37.0**	**1.0**
Trichlorofluoromethane	2,000	HRL_{93}	75-69-4	NS	NS	<0.13	<0.33	<5.00	<0.23	<0.13	<0.33	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichloropropane	0.003	HRL_{13}	96-18-4	NS	NS	<0.66	<0.28	<2.50	<0.26	<0.66	<0.28	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
1,1,2-Trichlorotrifluoroethane	200,000	HRL_{93}	76-13-1	NS	NS	<0.28	<0.32	<1.00	<0.22	<0.28	<0.32	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	100	RAA_{10}	95-63-6	NS	NS	<0.14	<0.18	<1.00	<0.20	<0.14	<0.18	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	100	HRL_{09}	108-67-8	NS	NS	<0.18	<0.27	<1.00	<0.12	<0.18	<0.27	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl chloride	0.2	HRL_{09}	75-01-4	NS	NS	<0.096	<0.069	<1.00	<0.092	<0.096	<0.069	<0.20	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Xylene (Total)	300	HRL_{11}	1330-20-7	NS	NS	<0.24	<0.32	<3.00	<0.31	<0.24	<0.32	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
m&p-Xylene	300	HRL_{11}	179601-23-1	NS	NS	<0.24	<0.11	NA	NA	<0.24	<0.11	NA	NA	NA	NA	NA	NA	NA	NA	<2.0	<2.0	<2.0	<2.0
o-Xylene	300	HRL_{11}	95-47-6	NS	NS	<0.17	<0.20	NA	NA	<0.17	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0
Total VOCs				**0.0**	**0.0**	**12.5**	**27.3**	**68.8**	**5.6**	**6.0**	**4.8**	**134.3**	**71.4**	**49.8**	**165.3**	**128.9**	**65.1**	**161.1**	**122.2**	**167.6**	**143.4**	**181.7**	**71.0**

* Subscripts either indicate the last two digits of the year the standard was developed or is based on a US EPA Maximum Contaminant Level (MCL)
HBV: Health Based Value
HRL: Health Risk Limit
RAA: Risk Assessment Advice
MDH: Minnesota Department of Health
NA: Not Analyzed
NCS: No MDH Compliance Standard
NS: Not Sampled
U: The analyte was not detected above the laboratory reporting limit or method detection lin
J: Estimated value, the value was between the Method Detection Limit and the lab reporting limit
J_{11}: Estimated value, the method blank was >reporting limit; the sample was <10X the blank result, the data may be baised high
BOLD Parameter detected above laboratory reporting limit

BOLD Parameter detected above MDH Compliance Standards

APPENDIX D
2018 GROUNDWATER WITHDRAWAL OPERATION AND MAINTENANCE RECORDS

OPERATIONS AND MAINTENANCE RECORD
GROUNDWATER RECOVERY SYSTEM
KURT MANUFACTURING

The groundwater recovery system consists of:

- Well C (recovery well) and associated pump, located outside on the north central part of the property;
- Control panel for the pump, located on the north wall in the men's bathroom;
- The air stripper, located in the north central part of the building, above the janitor's room;
- Wiring from the building to the pump; and
- Piping from the pump to the air stripper and from the stripper to the sanitary sewer discharge.

All above items should be inspected once a month. This form should be filled out during this inspection and turned in to the Kurt Manufacturing Environmental Health and Safety Department.

Month of Record: Jan.

Date of Inspection: 1/2/2018

Inspected By: Bruce Powers

Company: Kurt Manufacturing / 5280 Main St.

Well C:

Inspected: ☒ YES ☐ NO

Time: _____

Well Running: ☒ YES ☐ NO

Comments: _____

Control Panel (Tag B):

Inspected: ☒ YES ☐ NO

Flow Reading (Gallons per Minute): 29GPM

Meter Reading (Total Gallons): 196,407,860

Comments: _____

Air Stripper:

Inspected: ☐ YES ☒ NO

Comments: _____

Piping:

Inspected: ☒ YES ☐ NO

Comments: _____

OPERATIONS AND MAINTENANCE RECORD
GROUNDWATER RECOVERY SYSTEM
KURT MANUFACTURING

The groundwater recovery system consists of:

- Well C (recovery well) and associated pump, located outside on the north central part of the property;
- Control panel for the pump, located on the north wall in the men's bathroom;
- The air stripper, located in the north central part of the building, above the janitor's room;
- Wiring from the building to the pump; and
- Piping from the pump to the air stripper and from the stripper to the sanitary sewer discharge.

All above items should be inspected once a month. This form should be filled out during this inspection and turned in to the Kurt Manufacturing Environmental Health and Safety Department.

Month of Record: Feb..

Date of Inspection: 2/1/18

Inspected By: Bruce Powers

Company: Kurt Manufacturing / 5280 Main St.

Well C:

Inspected: ☒ YES ☐ NO

Time: _____

Well Running: ☒ YES ☐ NO

Comments: _____

Control Panel (Tag B):

Inspected: ☒ YES ☐ NO

Flow Reading (Gallons per Minute): 29GPM

Meter Reading (Total Gallons): 197,663,370

Comments: _____

Air Stripper:

Inspected: ☐ YES ☒ NO

Comments: _____

Piping:

Inspected: ☒ YES ☐ NO

Comments: _____

OPERATIONS AND MAINTENANCE RECORD
GROUNDWATER RECOVERY SYSTEM
KURT MANUFACTURING

The groundwater recovery system consists of:

- Well C (recovery well) and associated pump, located outside on the north central part of the property;
- Control panel for the pump, located on the north wall in the men's bathroom;
- The air stripper, located in the north central part of the building, above the janitor's room;
- Wiring from the building to the pump; and
- Piping from the pump to the air stripper and from the stripper to the sanitary sewer discharge.

All above items should be inspected once a month. This form should be filled out during this inspection and turned in to the Kurt Manufacturing Environmental Health and Safety Department.

Month of Record: Mar.

Date of Inspection: 3/1/2018

Inspected By: Bruce Powers

Company: Kurt Manufacturing / 5280 Main St.

Well C:

Inspected: ☒ YES ☐ NO

Time: _____

Well Running: ☒ YES ☐ NO

Comments: _____

Control Panel (Tag B):

Inspected: ☒ YES ☐ NO

Flow Reading (Gallons per Minute): 29GPM

Meter Reading (Total Gallons): 198,852,770

Comments: _____

Air Stripper:

Inspected: ☐ YES ☒ NO

Comments: _____

Piping:

Inspected: ☒ YES ☐ NO

Comments: _____

OPERATIONS AND MAINTENANCE RECORD
GROUNDWATER RECOVERY SYSTEM
KURT MANUFACTURING

The groundwater recovery system consists of:

- Well C (recovery well) and associated pump, located outside on the north central part of the property;
- Control panel for the pump, located on the north wall in the men's bathroom;
- The air stripper, located in the north central part of the building, above the janitor's room;
- Wiring from the building to the pump; and
- Piping from the pump to the air stripper and from the stripper to the sanitary sewer discharge.

All above items should be inspected once a month. This form should be filled out during this inspection and turned in to the Kurt Manufacturing Environmental Health and Safety Department.

Month of Record: Apr..

Date of Inspection: 4/1/2018

Inspected By: Bruce Powers

Company: Kurt Manufacturing / 5280 Main St.

Well C:

Inspected: ☒ YES ☐ NO

Time: _____

Well Running: ☒ YES ☐ NO

Comments: _____

Control Panel (Tag B):

Inspected: ☒ YES ☐ NO

Flow Reading (Gallons per Minute): 30GPM

Meter Reading (Total Gallons): 200,046,590

Comments: _____

Air Stripper:

Inspected: ☐ YES ☒ NO

Comments: _____

Piping:

Inspected: ☒ YES ☐ NO

Comments: _____

OPERATIONS AND MAINTENANCE RECORD
GROUNDWATER RECOVERY SYSTEM
KURT MANUFACTURING

The groundwater recovery system consists of:

- Well C (recovery well) and associated pump, located outside on the north central part of the property;
- Control panel for the pump, located on the north wall in the men's bathroom;
- The air stripper, located in the north central part of the building, above the janitor's room;
- Wiring from the building to the pump; and
- Piping from the pump to the air stripper and from the stripper to the sanitary sewer discharge.

All above items should be inspected once a month. This form should be filled out during this inspection and turned in to the Kurt Manufacturing Environmental Health and Safety Department.

Month of Record: May

Date of Inspection: 5/1/2018

Inspected By: Bruce Powers

Company: Kurt Manufacturing / 5280 Main St.

Well C:

Inspected: ☒ YES ☐ NO

Time: _____

Well Running: ☒ YES ☐ NO

Comments: _____

Control Panel (Tag B):

Inspected: ☒ YES ☐ NO

Flow Reading (Gallons per Minute): 30GPM

Meter Reading (Total Gallons): 201,346,550

Comments: _____

Air Stripper:

Inspected: ☐ YES ☒ NO

Comments: _____

Piping:

Inspected: ☒ YES ☐ NO

Comments: _____

OPERATIONS AND MAINTENANCE RECORD
GROUNDWATER RECOVERY SYSTEM
KURT MANUFACTURING

The groundwater recovery system consists of:

- Well C (recovery well) and associated pump, located outside on the north central part of the property;
- Control panel for the pump, located on the north wall in the men's bathroom;
- The air stripper, located in the north central part of the building, above the janitor's room;
- Wiring from the building to the pump; and
- Piping from the pump to the air stripper and from the stripper to the sanitary sewer discharge.

All above items should be inspected once a month. This form should be filled out during this inspection and turned in to the Kurt Manufacturing Environmental Health and Safety Department.

Month of Record: June

Date of Inspection: 6/1/2018

Inspected By: Bruce Powers

Company: Kurt Manufacturing / 5280 Main St.

Well C:

Inspected: ☒ YES ☐ NO

Time: _____

Well Running: ☒ YES ☐ NO

Comments: _____

Control Panel (Tag B):

Inspected: ☒ YES ☐ NO

Flow Reading (Gallons per Minute): 30GPM

Meter Reading (Total Gallons): 202,734,730

Comments: _____

Air Stripper:

Inspected: ☐ YES ☒ NO

Comments: _____

Piping:

Inspected: ☒ YES ☐ NO

Comments: _____

OPERATIONS AND MAINTENANCE RECORD
GROUNDWATER RECOVERY SYSTEM
KURT MANUFACTURING

The groundwater recovery system consists of:

- Well C (recovery well) and associated pump, located outside on the north central part of the property;
- Control panel for the pump, located on the north wall in the men's bathroom;
- The air stripper, located in the north central part of the building, above the janitor's room;
- Wiring from the building to the pump; and
- Piping from the pump to the air stripper and from the stripper to the sanitary sewer discharge.

All above items should be inspected once a month. This form should be filled out during this inspection and turned in to the Kurt Manufacturing Environmental Health and Safety Department.

Month of Record: July

Date of Inspection: 6/29/2018

Inspected By: Bruce Powers

Company: Kurt Manufacturing / 5280 Main St.

Well C:

Inspected: ☒ YES ☐ NO

Time: 6am

Well Running: ☒ YES ☐ NO

Comments: _____

Control Panel (Tag B):

Inspected: ☒ YES ☐ NO

Flow Reading (Gallons per Minute): 30GPM

Meter Reading (Total Gallons): 203,957,230

Comments: _____

Air Stripper:

Inspected: ☐ YES ☒ NO

Comments: _____

Piping:

Inspected: ☒ YES ☐ NO

Comments: _____

OPERATIONS AND MAINTENANCE RECORD
GROUNDWATER RECOVERY SYSTEM
KURT MANUFACTURING

The groundwater recovery system consists of:

- Well C (recovery well) and associated pump, located outside on the north central part of the property;
- Control panel for the pump, located on the north wall in the men's bathroom;
- The air stripper, located in the north central part of the building, above the janitor's room;
- Wiring from the building to the pump; and
- Piping from the pump to the air stripper and from the stripper to the sanitary sewer discharge.

All above items should be inspected once a month. This form should be filled out during this inspection and turned in to the Kurt Manufacturing Environmental Health and Safety Department.

Month of Record: Aug

Date of Inspection: 8/1/2018

Inspected By: Bruce Powers

Company: Kurt Manufacturing / 5280 Main St.

Well C:

Inspected: ☒ YES ☐ NO

Time: 6am

Well Running: ☒ YES ☐ NO

Comments: _____

Control Panel (Tag B):

Inspected: ☒ YES ☐ NO

Flow Reading (Gallons per Minute): 30GPM

Meter Reading (Total Gallons): 205,390,480

Comments: _____

Air Stripper:

Inspected: ☐ YES ☒ NO

Comments: _____

Piping:

Inspected: ☒ YES ☐ NO

Comments: _____

OPERATIONS AND MAINTENANCE RECORD
GROUNDWATER RECOVERY SYSTEM
KURT MANUFACTURING

The groundwater recovery system consists of:

- Well C (recovery well) and associated pump, located outside on the north central part of the property;
- Control panel for the pump, located on the north wall in the men's bathroom;
- The air stripper, located in the north central part of the building, above the janitor's room;
- Wiring from the building to the pump; and
- Piping from the pump to the air stripper and from the stripper to the sanitary sewer discharge.

All above items should be inspected once a month. This form should be filled out during this inspection and turned in to the Kurt Manufacturing Environmental Health and Safety Department.

Month of Record: Sep.

Date of Inspection: 8/31/2018

Inspected By: Bruce Powers

Company: Kurt Manufacturing / 5280 Main St.

Well C:

Inspected: ☒ YES ☐ NO

Time: 6am

Well Running: ☒ YES ☐ NO

Comments: _____

Control Panel (Tag B):

Inspected: ☒ YES ☐ NO

Flow Reading (Gallons per Minute): 30GPM

Meter Reading (Total Gallons): 206,606,500

Comments: _____

Air Stripper:

Inspected: ☐ YES ☒ NO

Comments: _____

Piping:

Inspected: ☒ YES ☐ NO

Comments: _____

OPERATIONS AND MAINTENANCE RECORD
GROUNDWATER RECOVERY SYSTEM
KURT MANUFACTURING

The groundwater recovery system consists of:

- Well C (recovery well) and associated pump, located outside on the north central part of the property;
- Control panel for the pump, located on the north wall in the men's bathroom;
- The air stripper, located in the north central part of the building, above the janitor's room;
- Wiring from the building to the pump; and
- Piping from the pump to the air stripper and from the stripper to the sanitary sewer discharge.

All above items should be inspected once a month. This form should be filled out during this inspection and turned in to the Kurt Manufacturing Environmental Health and Safety Department.

Month of Record: Oct..

Date of Inspection: 10/1/2018

Inspected By: Bruce Powers

Company: Kurt Manufacturing / 5280 Main St.

Well C:

Inspected: ☒ YES ☐ NO

Time: 9AM

Well Running: ☒ YES ☐ NO

Comments: _____

Control Panel (Tag B):

Inspected: ☒ YES ☐ NO

Flow Reading (Gallons per Minute): 28GPM

Meter Reading (Total Gallons): 207,907,850

Comments: Pump losing ground can only get 28 GPM. Scheduled pump to be pulled and replaced. 10/1/18

Air Stripper:

Inspected: ☐ YES ☒ NO

Comments: _____

Piping:

Inspected: ☒ YES ☐ NO

Comments: _____

OPERATIONS AND MAINTENANCE RECORD
GROUNDWATER RECOVERY SYSTEM
KURT MANUFACTURING

The groundwater recovery system consists of:

- Well C (recovery well) and associated pump, located outside on the north central part of the property;
- Control panel for the pump, located on the north wall in the men's bathroom;
- The air stripper, located in the north central part of the building, above the janitor's room;
- Wiring from the building to the pump; and
- Piping from the pump to the air stripper and from the stripper to the sanitary sewer discharge.

All above items should be inspected once a month. This form should be filled out during this inspection and turned in to the Kurt Manufacturing Environmental Health and Safety Department.

Month of Record: Nov..

Date of Inspection: 11/1/2018

Inspected By: Bruce Powers

Company: Kurt Manufacturing / 5280 Main St.

Well C:

Inspected: ☒ YES ☐ NO

Time: 6AM

Well Running: ☒ YES ☐ NO

Comments: _____

Control Panel (Tag B):

Inspected: ☒ YES ☐ NO

Flow Reading (Gallons per Minute): 30GPM

Meter Reading (Total Gallons): 209,215,910

Comments: Pump losing ground can only get 28 GPM. Scheduled pump to be pulled and replaced.10/4/18. Also replaced 42 ft of S/S well pipe pump down for 5 hours and ten minetes. Back at 30 GPM

Air Stripper:

Inspected: ☒ YES ☒ NO

Comments: _____

Piping:

Inspected: ☒ YES ☐ NO

Comments: _____

OPERATIONS AND MAINTENANCE RECORD
GROUNDWATER RECOVERY SYSTEM
KURT MANUFACTURING

The groundwater recovery system consists of:

- Well C (recovery well) and associated pump, located outside on the north central part of the property;
- Control panel for the pump, located on the north wall in the men's bathroom;
- The air stripper, located in the north central part of the building, above the janitor's room;
- Wiring from the building to the pump; and
- Piping from the pump to the air stripper and from the stripper to the sanitary sewer discharge.

All above items should be inspected once a month. This form should be filled out during this inspection and turned in to the Kurt Manufacturing Environmental Health and Safety Department.

Month of Record: Dec...

Date of Inspection: 11/30/2018

Inspected By: Bruce Powers

Company: Kurt Manufacturing / 5280 Main St.

Well C:

Inspected: ☒ YES ☐ NO

Time: 6AM

Well Running: ☒ YES ☐ NO

Comments: _____

Control Panel (Tag B):

Inspected: ☒ YES ☐ NO

Flow Reading (Gallons per Minute): 30GPM

Meter Reading (Total Gallons): 210,456,860

Comments: _____

Air Stripper:

Inspected: ☒ YES ☒ NO

Comments: _____

Piping:

Inspected: ☒ YES ☐ NO

Comments: _____

OPERATIONS AND MAINTENANCE RECORD
GROUNDWATER RECOVERY SYSTEM
KURT MANUFACTURING

The groundwater recovery system consists of:

- Well C (recovery well) and associated pump, located outside on the north central part of the property;
- Control panel for the pump, located on the north wall in the men's bathroom;
- The air stripper, located in the north central part of the building, above the janitor's room;
- Wiring from the building to the pump; and
- Piping from the pump to the air stripper and from the stripper to the sanitary sewer discharge.

All above items should be inspected once a month. This form should be filled out during this inspection and turned in to the Kurt Manufacturing Environmental Health and Safety Department.

Month of Record: Jan....

Date of Inspection: 1/2/2018

Inspected By: Bruce Powers

Company: Kurt Manufacturing / 5280 Main St.

Well C:

Inspected: ☒ YES ☐ NO

Time: 8AM

Well Running: ☒ YES ☐ NO

Comments: _____

Control Panel (Tag B):

Inspected: ☒ YES ☐ NO

Flow Reading (Gallons per Minute): 30GPM

Meter Reading (Total Gallons): 211,887,110

Comments: _____

Air Stripper:

Inspected: ☒ YES ☒ NO

Comments: _____

Piping:

Inspected: ☒ YES ☐ NO

Comments: _____

APPENDIX E
2018 MCES QUARTERLY REPORTS

Metropolitan Council Environmental Services
Industrial Waste & Pollution Prevention Section
390 North Robert Street
St. Paul, Minnesota 55101-1805

Submittal ID: 6184
Submittal Date: 04/04/2018
Permit No: 2016

Reporting Period Summary SMR

1. **Permittee*:** Kurt Mfg Co

*The corporation, proprietorship, government unit or individual that was issued the MCES Permit or Approval Letter.

2. **Site Address:** 5280 NE Main ST, FRIDLEY, MN 55421

Mailing Address Changed? [ ] Yes [X] No

Contact	Responsibility	Contact Address	Email	Phone	Fax	Name Change and Reason
Jim Sjoselius (Active) EHS Coordinator	Billing, Primary	5280 Main Street NE FRIDLEY, MN 55421	jsjoselius@kurt.com	763-572-4486	612-572-8213	
Jason Skramstad (Active) Vice President, Environmental Engineering	Environmental Consultant	2042 W 98th St BLOOMINGTON, MN 55431	jskramstad@landmarkenv.com	952-666-2444		
Kelli Watson (Active) Vice President Human Resources	Signatory Authority	5280 NE Main St FRIDLEY, MN 55421	kelliw@kurt.com	763-572-4443		
Hillary Lucarelli (Active) EHS Coordinator	Designated Signatory	5280 NE Main St FRIDLEY, MN 55421	hlucarelli@kurt.com	763-572-4579		

3. **Reporting Period:**

A. [X] Jan-Mar, 2018 [ ] Apr-Jun, 20 [ ] Jul-Sep, 20 [ ] Oct-Dec, 20

B. [ ] Jan-Dec, 20

C. [ ] Short-term Approval: Discharge Start Date: _____ End Date: _____

4. **Discharge Information:**

Indicate whether the wastewater was discharged on-site and/or hauled during this reporting period, and complete the associated questions. If no wastewater was disposed to MCES during this reporting period, indicate no discharge.

[ ] **No Discharge to MCES during this reporting period.** (If no discharge is selected, proceed directly to next Item.)

[X] **On-Site Discharge**

A. Total volume discharged during this reporting period (gallons): 3638730

B. Total days of discharge during this reporting period (days): 90

C. Average volume discharged per day (gallons/day): 40430

D. Method of volume determination for this period: Meter Reading, Comments:Tag B minus Tag C

[ ] **Hauled Discharge**

5. I certify that all sampling data that occurred during this reporting period has been submitted to MCES.

[X] Yes [ ] No

6. Are the analytical results submitted during this reporting period representative of the wastewater discharged during this reporting period? [X] Yes [ ] No

7. Have there been any significant process problems/changes during this reporting period?

[ ] Yes [X] No

8. Are there any planned or expected future changes that will impact discharge volume or quality?

[ ] Yes [X] No

9. Certification Statement:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties under law for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Name (print):	Hillary Lucarelli	Title:	EHS Coordinator
Email:	hlucarelli@kurt.com	Phone:	7635724519

General Report Comments and Explanation

ATTACHMENT

Attachment Name	Submission Method	Submitted File Name	Attachment Description
Supporting Documents	Online	5280MainMeterReadingLog 2018.xls	

Metropolitan Council Environmental Services
Industrial Waste & Pollution Prevention Section
390 North Robert Street
St. Paul, Minnesota 55101-1805

Submittal ID:	**6182**
Submittal Date:	**04/04/2018**
Permit No:	**2016**
Monitoring Point:	**SP-01**

Sampling Results SMR

MCES Industrial Discharge Permit holders must complete this form for each monitoring point specified in their permit.

1. **Permittee:** Kurt Mfg Co Permit No: 2016
2. **Site Address:** 5280 NE Main ST, FRIDLEY, MN 55421
3. **Reporting Period:** [ ] No Discharge/No Sampling

Quarterly Reporters:	[X]	Jan-Mar, 2018	[ ]	Apr-Jun, 20	[ ]	Jul-Sep, 20	[ ] Oct-Dec, 20
Semi-Annual Reporters:	[ ]	Jan-Jun, 20	[ ]	Jul-Dec, 20			
Annual Reporters:	[ ]	Jan-Dec, 20					

4. **Proper Sampling**: Were all samples collected and composited according to permit requirements? [X] Yes [ ] No
5. **Proper Analysis**: Were analyses conducted per permit requirements? [X] Yes [ ] No
6. **Representative Discharge:** Are the analytical results representative of the wastewater discharged during this monitoring event? [X] Yes [ ] No
7. **Compliance Status:** Compare the analytical results with the corresponding discharge limits in your Permit. Do any analytical results exceed the corresponding discharge limit(s) in your Permit? [ ] Yes [X] No
8. **General comments regarding submission:**

9. **Certification Statement:**

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties under law for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Name (print):	Hillary Lucarelli	Title:	EHS Coordinator
Email:	hlucarelli@kurt.com	Phone:	7635724519

Sample Results: Submit one result sheet for each sampling day per monitoring point. Enter daily values for each sampling event from one monitoring point, in accordance with requirements in the Industrial Discharge Permit (Section B). Daily and long-term values shall be compared to Discharge Limitations in Permit Section A.1 for compliance determinations. Attach all laboratory data sheets and supporting calculations.

Flow Reading

Start Date	End Date	Discharge Volume	Units	Comments

Sample Start Date & Time: 01/25/2018 11:37 **Sample End Date & Time:** 01/25/2018 11:37

Daily Data Form

Substance	Analytical Result	Result Unit	Reporting Limits(mg/L)	Analysis Method	Sample Method	Bottle Container	Laboratory Name
pH Instantaneous	7.1	S.U.	0.1	SM 4500-H+	Grab - Single		Pace Analytical Services Inc
Suspended Solids	< 10	mg/L	10	SM 2540D	Grab - Single		Pace Analytical Services Inc
COD	< 50	mg/L	50	SM 5220D	Grab - Single		Pace Analytical Services Inc
Carbon Tetrachloride	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Chlorobenzene	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Chloroethane	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Chloroform	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Chloromethane	< 20.0	ug/L	20.0	EPA 624	Grab - Single		Pace Analytical Services Inc
cis-1,3-Dichloropropene	< 20.0	ug/L	20.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Dibromochloromethane	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Ethyl Benzene	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Methylene Chloride	< 20.0	ug/L	20.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Tetrachloroethene	697	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Toluene	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Trans-1, 2-Dichloroethene	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Trans-1, 3-Dichloropropene	< 20.0	ug/L	20.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Trichloroethene	5.7	ug/L	2.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Trichlorofluoromethane	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Vinyl Chloride	< 2.0	ug/L	2.0	EPA 624	Grab - Single		Pace Analytical Services Inc
1,1,1-Trichloroethane	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
1,1,2,2-Tetrachloroethane	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
1,1,2-Trichloroethane	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
1,1-Dichloroethane	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc

Daily Data Form

Substance	Analytical Result	Result Unit	Reporting Limits(mg/L)	Analysis Method	Sample Method	Bottle Container	Laboratory Name
1,1-Dichloroethene	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
1,2-Dichlorobenzene	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
1,2-Dichloroethane	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
1,2-Dichloropropane	< 20.0	ug/L	20.0	EPA 624	Grab - Single		Pace Analytical Services Inc
1,3-Dichlorobenzene	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
1,4-Dichlorobenzene	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
2-Chloroethylvinylether	< 50.0	ug/L	50.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Benzene	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Bromodichloromethane	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Bromoform	< 20.0	ug/L	20.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Bromomethane	< 20.0	ug/L	20.0	EPA 624	Grab - Single		Pace Analytical Services Inc

Substance	Sample Col. Method	Sample Col. Method Reason	Sample(s) Collected By	Sample(s) Composited By	Compositing Method	Compositing Method Reason
pH Instantaneous						
Suspended Solids						
COD						
Carbon Tetrachloride						
Chlorobenzene						
Chloroethane						
Chloroform						
Chloromethane						
cis-1,3-Dichloropropene						
Dibromochloromethane						
Ethyl Benzene						
Methylene Chloride						
Tetrachloroethene						
Toluene						
Trans-1, 2-Dichloroethene						
Trans-1, 3-Dichloropropene						
Trichloroethene						
Trichlorofluoromethane						
Vinyl Chloride						
1,1,1-Trichloroethane						
1,1,2,2-Tetrachloroethane						

1,1,2-Trichloroethane						
1,1-Dichloroethane						
1,1-Dichloroethene						
1,2-Dichlorobenzene						
1,2-Dichloroethane						
1,2-Dichloropropane						
1,3-Dichlorobenzene						
1,4-Dichlorobenzene						
2-Chloroethylvinylether						
Benzene						
Bromodichloromethane						
Bromoform						
Bromomethane						

Metropolitan Council Environmental Services
Industrial Waste & Pollution Prevention Section
390 North Robert Street
St. Paul, Minnesota 55101-1805

Submittal ID:	6931
Submittal Date:	07/24/2018
Permit No:	2016

Reporting Period Information SMR

1. Permittee*: Kurt Mfg Co

*The corporation, proprietorship, government unit or individual that was issued the MCES Permit or Approval Letter.

2. Site Address: 5280 NE Main ST, FRIDLEY, MN 55421

Mailing Address Changed? [ ] Yes [X] No

Contact	Responsibility	Contact Address	Email	Phone	Fax	Name Change and Reason
Jim Sjoselius (Active) EHS Coordinator	Billing, Primary	5280 Main Street NE FRIDLEY, MN 55421	jsjoselius@kurt.com	763-572-4486	612-572-8213	
Jason Skramstad (Active) Vice President, Environmental Engineering	Environmental Consultant	2042 W 98th St BLOOMINGTON, MN 55431	jskramstad@landmarkenv.com	952-666-2444		
Kelli Watson (Active) Chief Administrative Officer	Signatory Authority	5280 NE Main St FRIDLEY, MN 55421	kelliw@kurt.com	763-572-4443		
Hillary Lucarelli (Active) EHS Program Manager	Designated Signatory	5280 NE Main St FRIDLEY, MN 55421	hlucarelli@kurt.com	763-572-4579		

3. Reporting Period:

A. [ ] Jan-Mar, 20 [X] Apr-Jun, 2018 [ ] Jul-Sep, 20 [ ] Oct-Dec, 20

B. [ ] Jan-Dec, 20

C. [ ] Short-term Approval: Discharge Start Date: _____ End Date: _____

4. Discharge Information:

Indicate whether the wastewater was discharged on-site and/or hauled during this reporting period, and complete the associated questions. If no wastewater was disposed to MCES during this reporting period, indicate no discharge.

[ ] **No Discharge to MCES during this reporting period.** (If no discharge is selected, proceed directly to next Item.)

[X] **On-Site Discharge**

A. Total volume discharged during this reporting period (gallons): 3899240

B. Total days of discharge during this reporting period (days): 91

C. Average volume discharged per day (gallons/day): 42848

D. Method of volume determination for this period: Meter Reading, Comments:Tag B - Tag C

[ ] **Hauled Discharge**

5. I certify that all sampling data that occurred during this reporting period has been submitted to MCES.

[X] Yes [ ] No

6. Are the analytical results submitted during this reporting period representative of the wastewater discharged during this reporting period? [X] Yes [ ] No

7. Have there been any significant process problems/changes during this reporting period?

[ ] Yes [X] No

8. Are there any planned or expected future changes that will impact discharge volume or quality?

[ ] Yes [X] No

9. Certification Statement:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties under law for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Name (print):	Hillary Lucarelli	Title:	EHS Program Manager
Email:	hlucarelli@kurt.com	Phone:	7635724519

General Report Comments and Explanation

ATTACHMENT

Attachment Name	Submission Method	Submitted File Name	Attachment Comments	Attachment Description
Supporting Documents	Online	Meter Readings- 5280 1st Half 2018.xls	Meter Readings- 5280 1st Half 2018	

Metropolitan Council Environmental Services
Industrial Waste & Pollution Prevention Section
390 North Robert Street
St. Paul, Minnesota 55101-1805

Submittal ID:	**6191**
Submittal Date:	**07/24/2018**
Permit No:	**2016**
Monitoring Point:	**SP-01**

Sampling Results SMR

MCES Industrial Discharge Permit holders must complete this form for each monitoring point specified in their permit.

1. **Permittee:** Kurt Mfg Co Permit No: 2016
2. **Site Address:** 5280 NE Main ST, FRIDLEY, MN 55421
3. **Reporting Period:** [ ] No Discharge/No Sampling

Quarterly Reporters:	[ ]	Jan-Mar, 20	[X]	Apr-Jun, 2018	[ ]	Jul-Sep, 20	[ ] Oct-Dec, 20
Semi-Annual Reporters:	[ ]	Jan-Jun, 20	[ ]	Jul-Dec, 20			
Annual Reporters:	[ ]	Jan-Dec, 20					

4. **Proper Sampling**: Were all samples collected and composited according to permit requirements? [X] Yes [ ] No
5. **Proper Analysis**: Were analyses conducted per permit requirements? [X] Yes [ ] No
6. **Representative Discharge:** Are the analytical results representative of the wastewater discharged during this monitoring event? [X] Yes [ ] No
7. **Compliance Status:** Compare the analytical results with the corresponding discharge limits in your Permit. Do any analytical results exceed the corresponding discharge limit(s) in your Permit? [ ] Yes [X] No
8. **General comments regarding submission:**

9. **Certification Statement:**

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties under law for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Name (print):	Hillary Lucarelli	Title:	EHS Program Manager
Email:	hlucarelli@kurt.com	Phone:	7635724519

Sample Results: Submit one result sheet for each sampling day per monitoring point. Enter daily values for each sampling event from one monitoring point, in accordance with requirements in the Industrial Discharge Permit (Section B). Daily and long-term values shall be compared to Discharge Limitations in Permit Section A.1 for compliance determinations. Attach all laboratory data sheets and supporting calculations.

Flow Reading

Start Date	End Date	Discharge Volume	Units	Comments

Sample Start Date & Time: 04/25/2018 08:05 **Sample End Date & Time:** 04/25/2018 08:05

Daily Data Form

Substance	Analytical Result	Result Unit	Reporting Limits(mg/L)	Analysis Method	Sample Method	Bottle Container	Laboratory Name
pH Instantaneous	7.3	S.U.	0.1	SM 4500-H+	Grab - Single		Pace Analytical Services Inc
Suspended Solids	< 10	mg/L	10	SM 2540D	Grab - Single		Pace Analytical Services Inc
COD	< 50	mg/L	50	SM 5220D	Grab - Single		Pace Analytical Services Inc
Carbon Tetrachloride	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Chlorobenzene	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Chloroethane	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Chloroform	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Chloromethane	< 20.0	ug/L	20.0	EPA 624	Grab - Single		Pace Analytical Services Inc
cis-1,3-Dichloropropene	< 20.0	ug/L	20.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Dibromochloromethane	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Ethyl Benzene	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Methylene Chloride	< 20.0	ug/L	20.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Tetrachloroethene	673	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Toluene	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Trans-1, 2-Dichloroethene	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Trans-1, 3-Dichloropropene	< 20.0	ug/L	20.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Trichloroethene	6.0	ug/L	2.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Trichlorofluoromethane	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Vinyl Chloride	< 2.0	ug/L	2.0	EPA 624	Grab - Single		Pace Analytical Services Inc
1,1,1-Trichloroethane	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
1,1,2,2-Tetrachloroethane	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
1,1,2-Trichloroethane	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
1,1-Dichloroethane	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc

Daily Data Form

Substance	Analytical Result	Result Unit	Reporting Limits(mg/L)	Analysis Method	Sample Method	Bottle Container	Laboratory Name
1,1-Dichloroethene	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
1,2-Dichlorobenzene	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
1,2-Dichloroethane	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
1,2-Dichloropropane	< 20.0	ug/L	20.0	EPA 624	Grab - Single		Pace Analytical Services Inc
1,3-Dichlorobenzene	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
1,4-Dichlorobenzene	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
2-Chloroethylvinylether	< 50.0	ug/L	50.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Tetrachloromethane	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Tribromomethane	< 20.0	ug/L	20.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Trichloromethane	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
o-Dichlorobenzene	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
1,2-Dichloroethylene	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Benzene	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Bromodichloromethane	< 5.0	ug/L	5.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Bromoform	< 20.0	ug/L	20.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Bromomethane	< 20.0	ug/L	20.0	EPA 624	Grab - Single		Pace Analytical Services Inc

Substance	Sample Col. Method	Sample Col. Method Reason	Sample(s) Collected By	Sample(s) Composited By	Compositing Method	Compositing Method Reason
pH Instantaneous						
Suspended Solids						
COD						
Carbon Tetrachloride						
Chlorobenzene						
Chloroethane						
Chloroform						
Chloromethane						
cis-1,3-Dichloropropene						
Dibromochloromethane						
Ethyl Benzene						
Methylene Chloride						
Tetrachloroethene						
Toluene						
Trans-1, 2-Dichloroethene						

Trans-1, 3-Dichloropropene						
Trichloroethene						
Trichlorofluoromethane						
Vinyl Chloride						
1,1,1-Trichloroethane						
1,1,2,2-Tetrachloroethane						
1,1,2-Trichloroethane						
1,1-Dichloroethane						
1,1-Dichloroethene						
1,2-Dichlorobenzene						
1,2-Dichloroethane						
1,2-Dichloropropane						
1,3-Dichlorobenzene						
1,4-Dichlorobenzene						
2-Chloroethylvinylether						
Tetrachloromethane						
Tribromomethane						
Trichloromethane						
o-Dichlorobenzene						
1,2-Dichloroethylene						
Benzene						
Bromodichloromethane						
Bromoform						
Bromomethane						

Metropolitan Council Environmental Services
Industrial Waste & Pollution Prevention Section
390 North Robert Street
St. Paul, Minnesota 55101-1805

Submittal ID: 7722
Submittal Date: 10/23/2018
Permit No: 2016

Reporting Period Information SMR

1. **Permittee*:** Kurt Mfg Co

*The corporation, proprietorship, government unit or individual that was issued the MCES Permit or Approval Letter.

2. **Site Address:** 5280 NE Main ST, FRIDLEY, MN 55421

Mailing Address Changed? [ ] Yes [X] No

Contact	Responsibility	Contact Address	Email	Phone	Fax	Name Change and Reason
Jim Sjoselius (Active) EHS Coordinator	Environmental Consultant	5280 Main Street NE FRIDLEY, MN 55421	jsjoselius@kurt.com	763-572-4486	612-572-8213	
Jason Skramstad (Active) Vice President, Environmental Engineering	Environmental Consultant	2042 W 98th St BLOOMINGTON, MN 55431	jskramstad@landmarkenv.com	952-666-2444		
Kelli Watson (Active) Chief Administrative Officer	Signatory Authority	5280 NE Main St FRIDLEY, MN 55421	kelliw@kurt.com	763-572-4443		
Hillary Lucarelli (Active) EHS Program Manager	Billing, Designated Signatory, Primary	5280 NE Main St FRIDLEY, MN 55421	hlucarelli@kurt.com	763-572-4579		

3. **Reporting Period:**

A. [ ] Jan-Mar, 20 [ ] Apr-Jun, 20 [X] Jul-Sep, 2018 [ ] Oct-Dec, 20

B. [ ] Jan-Dec, 20

C. [ ] Short-term Approval: Discharge Start Date: _____ End Date: _____

4. **Discharge Information:**

Indicate whether the wastewater was discharged on-site and/or hauled during this reporting period, and complete the associated questions. If no wastewater was disposed to MCES during this reporting period, indicate no discharge.

[ ] **No Discharge to MCES during this reporting period.** (If no discharge is selected, proceed directly to next Item.)

[X] **On-Site Discharge**

A. Total volume discharged during this reporting period (gallons): 3918120
B. Total days of discharge during this reporting period (days): 92
C. Average volume discharged per day (gallons/day): 42588
D. Method of volume determination for this period: Meter Reading, Comments:Tag B minus Tag C

[ ] **Hauled Discharge**

5. I certify that all sampling data that occurred during this reporting period has been submitted to MCES.

[X] Yes [ ] No

6. Are the analytical results submitted during this reporting period representative of the wastewater discharged during this reporting period? [X] Yes [ ] No

7. Have there been any significant process problems/changes during this reporting period?

[ ] Yes [X] No

8. Are there any planned or expected future changes that will impact discharge volume or quality?

[ ] Yes [X] No

9. Certification Statement:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties under law for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Name (print):	Hillary Lucarelli	Title:	EHS Program Manager
Email:	hlucarelli@kurt.com	Phone:	7635724519

General Report Comments and Explanation

ATTACHMENT

Attachment Name	Submission Method	Submitted File Name	Attachment Comments	Attachment Description
Supporting Documents	Online	5280MainMeterReading Log 10-1-2018.xls	Meter Reading Report	

Metropolitan Council Environmental Services
Industrial Waste & Pollution Prevention Section
390 North Robert Street
St. Paul, Minnesota 55101-1805

Submittal ID:	**7723**
Submittal Date:	**10/24/2018**
Permit No:	**2016**
Monitoring Point:	**SP-01**

Sampling Results SMR

MCES Industrial Discharge Permit holders must complete this form for each monitoring point specified in their permit.

1. **Permittee:** Kurt Mfg Co Permit No: 2016
2. **Site Address:** 5280 NE Main ST, FRIDLEY, MN 55421
3. **Reporting Period:** [ ] No Discharge/No Sampling

Quarterly Reporters:	[ ] Jan-Mar, 20	[ ] Apr-Jun, 20	[X] Jul-Sep, 2018	[ ] Oct-Dec, 20
Semi-Annual Reporters:	[ ] Jan-Jun, 20	[ ] Jul-Dec, 20		
Annual Reporters:	[ ] Jan-Dec, 20			

4. **Proper Sampling**: Were all samples collected and composited according to permit requirements? [X] Yes [ ] No
5. **Proper Analysis**: Were analyses conducted per permit requirements? [X] Yes [ ] No
6. **Representative Discharge:** Are the analytical results representative of the wastewater discharged during this monitoring event? [X] Yes [ ] No
7. **Compliance Status:** Compare the analytical results with the corresponding discharge limits in your Permit. Do any analytical results exceed the corresponding discharge limit(s) in your Permit? [ ] Yes [X] No
8. **General comments regarding submission:**

SMR-SPEC
No samples were taken for cis-1,2 dichloroethene according to PACE.

9. **Certification Statement:**

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties under law for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Name (print):	Hillary Lucarelli	Title:	EHS Program Manager
Email:	hlucarelli@kurt.com	Phone:	7635724519

Sample Results: Submit one result sheet for each sampling day per monitoring point. Enter daily values for each sampling event from one monitoring point, in accordance with requirements in the Industrial Discharge Permit (Section B). Daily and long-term values shall be compared to Discharge Limitations in Permit Section A.1 for compliance determinations. Attach all laboratory data sheets and supporting calculations.

Flow Reading

Start Date	End Date	Discharge Volume	Units	Comments

Sample Start Date & Time: 08/16/2018 09:05 **Sample End Date & Time:** 08/16/2018 09:05

Daily Data Form

Substance	Analytical Result	Result Unit	Reporting Limits(mg/L)	Analysis Method	Sample Method	Bottle Container	Laboratory Name
pH Instantaneous	7.5	S.U.	0.1	SM 4500-H+	Grab - Single	Plastic - quart	Pace Analytical Services Inc
Suspended Solids	< 10	mg/L	10	SM 2540D	Grab - Single	Plastic - quart	Pace Analytical Services Inc
COD	< 50	mg/L	50	SM 5220D	Grab - Single	Plastic - quart	Pace Analytical Services Inc
Carbon Tetrachloride	< 5.0	ug/L	5.0	EPA 624	Grab - Single	Vial - 40 ml amber	Pace Analytical Services Inc
Chlorobenzene	< 5.0	ug/L	5.0	EPA 624	Grab - Single	Vial - 40 ml amber	Pace Analytical Services Inc
Chloroethane	< 5.0	ug/L	5.0	EPA 624	Grab - Single	Vial - 40 ml amber	Pace Analytical Services Inc
Chloroform	< 5.0	ug/L	5.0	EPA 624	Grab - Single	Vial - 40 ml amber	Pace Analytical Services Inc
Chloromethane	< 20.0	ug/L	20.0	EPA 624	Grab - Single	Vial - 40 ml amber	Pace Analytical Services Inc
cis-1,3-Dichloropropene	< 20.0	ug/L	20.0	EPA 624	Grab - Single	Vial - 40 ml amber	Pace Analytical Services Inc
Dibromochloromethane	< 5.0	ug/L	5.0	EPA 624	Grab - Single	Vial - 40 ml amber	Pace Analytical Services Inc
Ethyl Benzene	< 5.0	ug/L	5.0	EPA 624	Grab - Single	Vial - 40 ml amber	Pace Analytical Services Inc
Methylene Chloride	< 20.0	ug/L	20.0	EPA 624	Grab - Single	Vial - 40 ml amber	Pace Analytical Services Inc
Tetrachloroethene	924	ug/L	5.0	EPA 624	Grab - Single	Vial - 40 ml amber	Pace Analytical Services Inc
Toluene	< 5.0	ug/L	5.0	EPA 624	Grab - Single	Vial - 40 ml amber	Pace Analytical Services Inc
Trans-1, 2-Dichloroethene	< 5.0	ug/L	5.0	EPA 624	Grab - Single	Vial - 40 ml amber	Pace Analytical Services Inc
Trans-1, 3-Dichloropropene	< 20.0	ug/L	20.0	EPA 624	Grab - Single	Vial - 40 ml amber	Pace Analytical Services Inc
Trichloroethene	8.3	ug/L	5.0	EPA 624	Grab - Single	Vial - 40 ml amber	Pace Analytical Services Inc
Trichlorofluoromethane	< 5.0	ug/L	5.0	EPA 624	Grab - Single	Vial - 40 ml amber	Pace Analytical Services Inc
Vinyl Chloride	< 2.0	ug/L	2.0	EPA 624	Grab - Single	Vial - 40 ml amber	Pace Analytical Services Inc
1,1,1-Trichloroethane	< 5.0	ug/L	5.0	EPA 624	Grab - Single	Vial - 40 ml amber	Pace Analytical Services Inc
1,1,2,2-Tetrachloroethane	< 5.0	ug/L	5.0	EPA 624	Grab - Single	Vial - 40 ml amber	Pace Analytical Services Inc
1,1,2-Trichloroethane	< 5.0	ug/L	5.0	EPA 624	Grab - Single	Vial - 40 ml amber	Pace Analytical Services Inc
1,1-Dichloroethane	< 5.0	ug/L	5.0	EPA 624	Grab - Single	Vial - 40 ml amber	Pace Analytical Services Inc

Daily Data Form

Substance	Analytical Result	Result Unit	Reporting Limits(mg/L)	Analysis Method	Sample Method	Bottle Container	Laboratory Name
1,1-Dichloroethene	< 5.0	ug/L	5.0	EPA 624	Grab - Single	Vial - 40 ml amber	Pace Analytical Services Inc
1,2-Dichlorobenzene	< 5.0	ug/L	5.0	EPA 624	Grab - Single	Vial - 40 ml amber	Pace Analytical Services Inc
1,2-Dichloroethane	< 5.0	ug/L	5.0	EPA 624	Grab - Single	Vial - 40 ml amber	Pace Analytical Services Inc
1,2-Dichloropropane	< 20.0	ug/L	20.0	EPA 624	Grab - Single	Vial - 40 ml amber	Pace Analytical Services Inc
1,3-Dichlorobenzene	< 5.0	ug/L	5.0	EPA 624	Grab - Single	Vial - 40 ml amber	Pace Analytical Services Inc
1,4-Dichlorobenzene	< 5.0	ug/L	5.0	EPA 624	Grab - Single	Vial - 40 ml amber	Pace Analytical Services Inc
2-Chloroethylvinylether	< 50.0	ug/L	50.0	EPA 624	Grab - Single	Vial - 40 ml amber	Pace Analytical Services Inc
Tetrachloromethane	< 5.0	ug/L	5.0	EPA 624	Grab - Single	Vial - 40 ml amber	Pace Analytical Services Inc
Tribromomethane	< 20.0	ug/L	20.0	EPA 624	Grab - Single	Vial - 40 ml amber	Pace Analytical Services Inc
Trichloromethane	< 5.0	ug/L	5.0	EPA 624	Grab - Single	Vial - 40 ml amber	Pace Analytical Services Inc
o-Dichlorobenzene	< 5.0	ug/L	5.0	EPA 624	Grab - Single	Vial - 40 ml amber	Pace Analytical Services Inc
1,2-Dichloroethylene	< 5.0	ug/L	5.0	EPA 624	Grab - Single	Vial - 40 ml amber	Pace Analytical Services Inc
Benzene	< 5.0	ug/L	5.0	EPA 624	Grab - Single	Vial - 40 ml amber	Pace Analytical Services Inc
Bromodichloromethane	< 5.0	ug/L	5.0	EPA 624	Grab - Single	Vial - 40 ml amber	Pace Analytical Services Inc
Bromoform	< 20.0	ug/L	20.0	EPA 624	Grab - Single	Vial - 40 ml amber	Pace Analytical Services Inc
Bromomethane	< 20.0	ug/L	20.0	EPA 624	Grab - Single	Vial - 40 ml amber	Pace Analytical Services Inc

Substance	Sample Col. Method	Sample Col. Method Reason	Sample(s) Collected By	Sample(s) Composited By	Compositing Method	Compositing Method Reason
pH Instantaneous						
Suspended Solids						
COD						
Carbon Tetrachloride						
Chlorobenzene						
Chloroethane						
Chloroform						
Chloromethane						
cis-1,3-Dichloropropene						
Dibromochloromethane						
Ethyl Benzene						
Methylene Chloride						
Tetrachloroethene						
Toluene						
Trans-1, 2-Dichloroethene						

Trans-1, 3-Dichloropropene						
Trichloroethene						
Trichlorofluoromethane						
Vinyl Chloride						
1,1,1-Trichloroethane						
1,1,2,2-Tetrachloroethane						
1,1,2-Trichloroethane						
1,1-Dichloroethane						
1,1-Dichloroethene						
1,2-Dichlorobenzene						
1,2-Dichloroethane						
1,2-Dichloropropane						
1,3-Dichlorobenzene						
1,4-Dichlorobenzene						
2-Chloroethylvinylether						
Tetrachloromethane						
Tribromomethane						
Trichloromethane						
o-Dichlorobenzene						
1,2-Dichloroethylene						
Benzene						
Bromodichloromethane						
Bromoform						
Bromomethane						

Metropolitan Council Environmental Services
Industrial Waste & Pollution Prevention Section
390 North Robert Street
St. Paul, Minnesota 55101-1805

Submittal ID: 8256
Submittal Date: 01/10/2019
Permit No: 2016

Reporting Period Information SMR

1. Permittee*: Kurt Mfg Co

*The corporation, proprietorship, government unit or individual that was issued the MCES Permit or Approval Letter.

2. Site Address: 5280 NE Main ST, FRIDLEY, MN 55421

Mailing Address Changed? [ ] Yes [X] No

Contact	Responsibility	Contact Address	Email	Phone	Fax	Name Change and Reason
Jim Sjoselius (Active) EHS Coordinator	Environmental Consultant	5280 Main Street NE FRIDLEY, MN 55421	jsjoselius@kurt.com	763-572-4486	612-572-8213	
Jason Skramstad (Active) Vice President, Environmental Engineering	Environmental Consultant	2042 W 98th St BLOOMINGTON, MN 55431	jskramstad@landmarkenv.com	952-666-2444		
Kelli Watson (Active) Chief Administrative Officer	Signatory Authority	5280 NE Main St FRIDLEY, MN 55421	kelliw@kurt.com	763-572-4443		
Hillary Lucarelli (Active) EHS Program Manager	Billing, Designated Signatory, Primary	5280 NE Main St FRIDLEY, MN 55421	hlucarelli@kurt.com	763-572-4579		
Claire Isaacs (Active) EHS Admin	Environmental Consultant	5280 NE Main St Fridley, MN 55421	cisaacs@kurt.com	763-572-4426		

3. Reporting Period:

A. [ ] Jan-Mar, 20 [ ] Apr-Jun, 20 [ ] Jul-Sep, 20 [X] Oct-Dec, 2018

B. [ ] Jan-Dec, 20

C. [ ] Short-term Approval: Discharge Start Date: _____ End Date: _____

4. Discharge Information:

Indicate whether the wastewater was discharged on-site and/or hauled during this reporting period, and complete the associated questions. If no wastewater was disposed to MCES during this reporting period, indicate no discharge.

[ ] **No Discharge to MCES during this reporting period.** (If no discharge is selected, proceed directly to next Item.)

[X] **On-Site Discharge**

A. Total volume discharged during this reporting period (gallons): 3979160

B. Total days of discharge during this reporting period (days): 92

C. Average volume discharged per day (gallons/day): 43251

D. Method of volume determination for this period: Meter Reading, Comments:Tag B- Tag C

[ ] **Hauled Discharge**

5. I certify that all sampling data that occurred during this reporting period has been submitted to MCES.

[X] Yes [ ] No

6. Are the analytical results submitted during this reporting period representative of the wastewater discharged during this reporting period? [X] Yes [ ] No

7. Have there been any significant process problems/changes during this reporting period?
[ ] Yes [X] No

8. Are there any planned or expected future changes that will impact discharge volume or quality?
[ ] Yes [X] No

9. SAC : Have you made any SAC payments since the last reporting period?
[ ] Yes [X] No

10. Certification Statement:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties under law for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Name (print):	Hillary Lucarelli	Title:	EHS Program Manager
Email:	hlucarelli@kurt.com	Phone:	7635724519

General Report Comments and Explanation

ATTACHMENT

Attachment Name	Submission Method	Submitted File Name	Attachment Comments	Attachment Description
Supporting Documents	Online	1-3-2019 Meter Readings.xls		

Metropolitan Council Environmental Services
Industrial Waste & Pollution Prevention Section
390 North Robert Street
St. Paul, Minnesota 55101-1805

Submittal ID:	**8255**
Submittal Date:	**01/10/2019**
Permit No:	**2016**
Monitoring Point:	**SP-01**

Sampling Results SMR

MCES Industrial Discharge Permit holders must complete this form for each monitoring point specified in their permit.

1. **Permittee:** Kurt Mfg Co Permit No: 2016
2. **Site Address:** 5280 NE Main ST, FRIDLEY, MN 55421
3. **Reporting Period:** [ ] No Discharge/No Sampling

Quarterly Reporters:	[ ] Jan-Mar, 20	[ ] Apr-Jun, 20	[ ] Jul-Sep, 20	[X] Oct-Dec, 2018
Semi-Annual Reporters:	[ ] Jan-Jun, 20	[ ] Jul-Dec, 20		
Annual Reporters:	[ ] Jan-Dec, 20			

4. **Proper Sampling**: Were all samples collected and composited according to permit requirements? [X] Yes [ ] No
5. **Proper Analysis**: Were analyses conducted per permit requirements? [X] Yes [ ] No
6. **Representative Discharge:** Are the analytical results representative of the wastewater discharged during this monitoring event? [X] Yes [ ] No
7. **Compliance Status:** Compare the analytical results with the corresponding discharge limits in your Permit. Do any analytical results exceed the corresponding discharge limit(s) in your Permit? [ ] Yes [X] No
8. **General comments regarding submission:**

9. **Certification Statement:**

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties under law for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Name (print):	Hillary Lucarelli	Title:	EHS Program Manager
Email:	hlucarelli@kurt.com	Phone:	7635724519

Sample Results: Submit one result sheet for each sampling day per monitoring point. Enter daily values for each sampling event from one monitoring point, in accordance with requirements in the Industrial Discharge Permit (Section B). Daily and long-term values shall be compared to Discharge Limitations in Permit Section A.1 for compliance determinations. Attach all laboratory data sheets and supporting calculations.

Flow Reading

Start Date	End Date	Discharge Volume	Units	Comments

Sample Start Date & Time: 11/19/2018 11:45 **Sample End Date & Time:** 11/19/2018 11:45

Daily Data Form

Substance	Analytical Result	Result Unit	Reporting Limits(mg/L)	Analysis Method	Sample Method	Bottle Container	Laboratory Name
pH Instantaneous	7.1	S.U.	0.1	SM 4500-H+	Grab - Single		Pace Analytical Services Inc
Suspended Solids	< 10	mg/L	10	SM 2540D	Grab - Single		Pace Analytical Services Inc
COD	< 50	mg/L	50	SM 5220D	Grab - Single		Pace Analytical Services Inc
Carbon Tetrachloride	< 1.0	ug/L	1.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Chlorobenzene	< 1.0	ug/L	1.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Chloroethane	< 1.0	ug/L	1.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Chloroform	< 1.0	ug/L	1.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Chloromethane	< 4.0	ug/L	4.0	EPA 624	Grab - Single		Pace Analytical Services Inc
cis-1,3-Dichloropropene	< 4.0	ug/L	4.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Dibromochloromethane	< 1.0	ug/L	1.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Ethyl Benzene	< 1.0	ug/L	1.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Methylene Chloride	< 4.0	ug/L	4.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Tetrachloroethene	699	ug/L	10.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Toluene	< 1.0	ug/L	1.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Trans-1, 2-Dichloroethene	< 1.0	ug/L	1.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Trans-1, 3-Dichloropropene	< 4.0	ug/L	4.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Trichloroethene	7.0	ug/L	0.40	EPA 624	Grab - Single		Pace Analytical Services Inc
Trichlorofluoromethane	< 1.0	ug/L	1.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Vinyl Chloride	< 0.40	ug/L	0.40	EPA 624	Grab - Single		Pace Analytical Services Inc
1,1,1-Trichloroethane	< 1.0	ug/L	1.0	EPA 624	Grab - Single		Pace Analytical Services Inc
1,1,2,2-Tetrachloroethane	< 1.0	ug/L	1.0	EPA 624	Grab - Single		Pace Analytical Services Inc
1,1,2-Trichloroethane	< 1.0	ug/L	1.0	EPA 624	Grab - Single		Pace Analytical Services Inc
1,1-Dichloroethane	< 1.0	ug/L	1.0	EPA 624	Grab - Single		Pace Analytical Services Inc

Daily Data Form

Substance	Analytical Result	Result Unit	Reporting Limits(mg/L)	Analysis Method	Sample Method	Bottle Container	Laboratory Name
1,1-Dichloroethene	< 1.0	ug/L	1.0	EPA 624	Grab - Single		Pace Analytical Services Inc
1,2-Dichlorobenzene	< 1.0	ug/L	1.0	EPA 624	Grab - Single		Pace Analytical Services Inc
1,2-Dichloroethane	< 1.0	ug/L	1.0	EPA 624	Grab - Single		Pace Analytical Services Inc
1,2-Dichloropropane	< 4.0	ug/L	4.0	EPA 624	Grab - Single		Pace Analytical Services Inc
1,3-Dichlorobenzene	< 1.0	ug/L	1.0	EPA 624	Grab - Single		Pace Analytical Services Inc
1,4-Dichlorobenzene	< 1.0	ug/L	1.0	EPA 624	Grab - Single		Pace Analytical Services Inc
2-Chloroethylvinylether	< 10.0	ug/L	10.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Tetrachloromethane	< 1.0	ug/L	1.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Tribromomethane	< 4.0	ug/L	4.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Trichloromethane	< 1.0	ug/L	1.0	EPA 624	Grab - Single		Pace Analytical Services Inc
o-Dichlorobenzene	< 1.0	ug/L	1.0	EPA 624	Grab - Single		Pace Analytical Services Inc
1,2-Dichloroethylene	< 1.0	ug/L	1.0	EPA 624	Grab - Single		Pace Analytical Services Inc
cis-1,2-Dichloroethene	1.8	ug/L	1.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Benzene	< 1.0	ug/L	1.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Bromodichloromethane	< 1.0	ug/L	1.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Bromoform	< 4.0	ug/L	4.0	EPA 624	Grab - Single		Pace Analytical Services Inc
Bromomethane	< 4.0	ug/L	4.0	EPA 624	Grab - Single		Pace Analytical Services Inc

Substance	Sample Col. Method	Sample Col. Method Reason	Sample(s) Collected By	Sample(s) Composited By	Compositing Method	Compositing Method Reason
pH Instantaneous						
Suspended Solids						
COD						
Carbon Tetrachloride						
Chlorobenzene						
Chloroethane						
Chloroform						
Chloromethane						
cis-1,3-Dichloropropene						
Dibromochloromethane						
Ethyl Benzene						
Methylene Chloride						
Tetrachloroethene						
Toluene						

Trans-1, 2-Dichloroethene						
Trans-1, 3-Dichloropropene						
Trichloroethene						
Trichlorofluoromethane						
Vinyl Chloride						
1,1,1-Trichloroethane						
1,1,2,2-Tetrachloroethane						
1,1,2-Trichloroethane						
1,1-Dichloroethane						
1,1-Dichloroethene						
1,2-Dichlorobenzene						
1,2-Dichloroethane						
1,2-Dichloropropane						
1,3-Dichlorobenzene						
1,4-Dichlorobenzene						
2-Chloroethylvinylether						
Tetrachloromethane						
Tribromomethane						
Trichloromethane						
o-Dichlorobenzene						
1,2-Dichloroethylene						
cis-1,2-Dichloroethene						
Benzene						
Bromodichloromethane						
Bromoform						
Bromomethane						

APPENDIX F
2017 SPRING AND FALL POTENTIOMETRIC SURFACE FIGURES

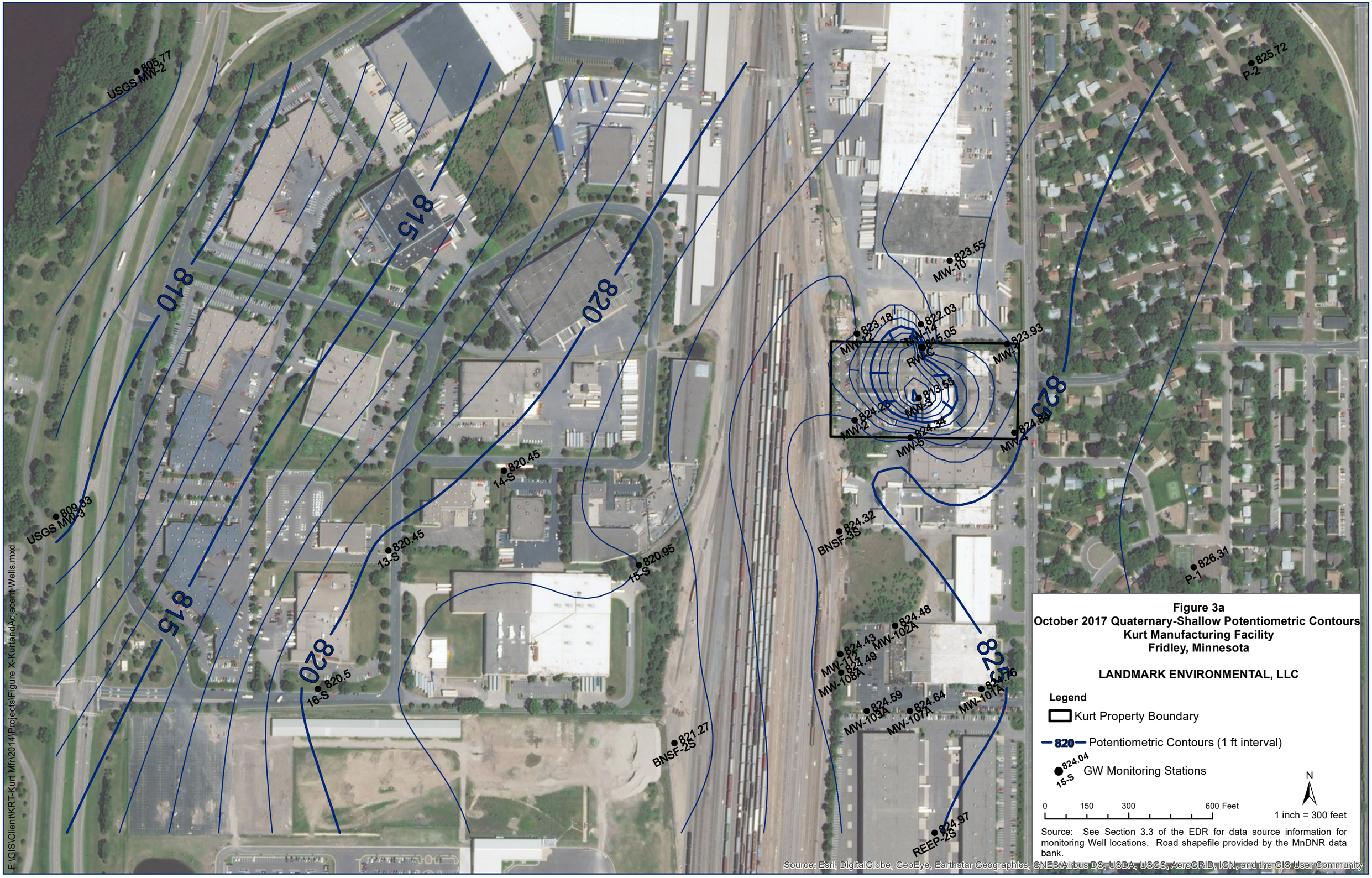

Figure 3a
October 2017 Quaternary-Shallow Potentiometric Contours
Kurt Manufacturing Facility
Fridley, Minnesota

LANDMARK ENVIRONMENTAL, LLC

Legend

- Kurt Property Boundary
- 820 — Potentiometric Contours (1 ft interval)
- 824.04 15-S — GW Monitoring Stations

N

0 150 300 600 Feet

1 inch = 300 feet

Source: See Section 3.3 of the EDR for data source information for monitoring Well locations. Road shapefile provided by the MnDNR data bank.

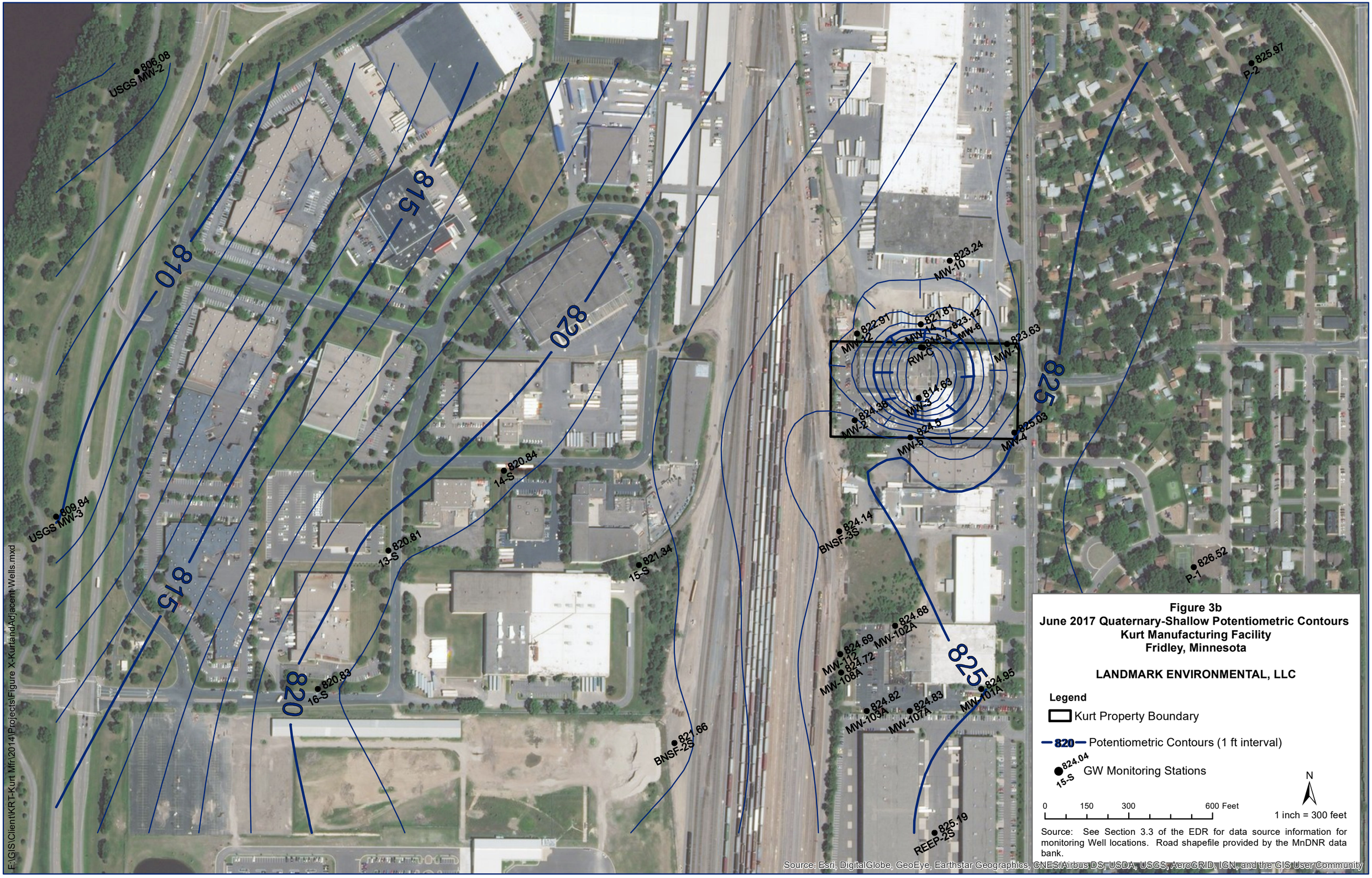

Figure 3b
June 2017 Quaternary-Shallow Potentiometric Contours
Kurt Manufacturing Facility
Fridley, Minnesota

LANDMARK ENVIRONMENTAL, LLC

Legend

- Kurt Property Boundary
- 820 Potentiometric Contours (1 ft interval)
- 824.04 15-S GW Monitoring Stations

N

0 150 300 600 Feet

1 inch = 300 feet

Source: See Section 3.3 of the EDR for data source information for monitoring Well locations. Road shapefile provided by the MnDNR data bank.

Figure 4a
October 2017 Quaternary-Deep Potentiometric Contours
Kurt Manufacturing Facility
Fridley, Minnesota

LANDMARK ENVIRONMENTAL, LLC

Legend

- Kurt Property Boundary
- 822.5 — Potentiometric Contours (0.5 ft. minor interval)
- 822.18 MW-4 — GW Monitoring Well Stations

0 100 200 400 Feet

N

1 inch = 200 feet

Source: See Section 3.3 of the EDR for data source information for monitoring Well locations. Road shapefile provided by the MnDNR data bank.

821.5
821.94 MW-12B
821.82 RW-2
823
823.51 MW-1
823.43 Well B
824.36 MW-8
823.92 MW-9
824.22 MW-15
824.3 BNSF-3D
823
822.62 10-D
822.04 11-D
822.61 BNSF-2D
824.48 MW-102B
824.66 MW-104B
824.54 MW-108B
824.55 MW-105B
825.11 MW-111B
824.59 MW-103B
824.64 MW-107B
824.64 MW-109B
824.79 MW-110
824.17 REEP#1
823.43 REEP#2

F:\GIS\Client\KRT-Kurt Mfr\2014\Projects\Figure X-KurtandAdjacent Wells.mxd

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Figure 4b
June 2017 Quaternary-Deep Potentiometric Contours
Kurt Manufacturing Facility
Fridley, Minnesota

LANDMARK ENVIRONMENTAL, LLC

Legend

- Kurt Property Boundary
- 822.5 — Potentiometric Contours (0.5 ft. minor interval)
- 822.18 MW-4 — GW Monitoring Well Stations

0 100 200 400 Feet

1 inch = 200 feet

N

Source: See Section 3.3 of the EDR for data source information for monitoring Well locations. Road shapefile provided by the MnDNR data bank.

822.5

820

821.6
MW-13
814.77
RW-C
823.04
823.12
824.46
Well B
MW-7
MW-8
823.92
823.88
MW-9
MW-15

824.12
BNSF-3D

822.29
10-D

824.64
MW-102B

824.92
MW-104B

824.73
MW-108B

824.77
MW-105B

825.31
MW-111B

824.81
MW-103B

824.85
MW-107B

824.87
MW-109B

824.99
MW-110

825

823.97
REEP#1

821.75
11-D

822.35
BNSF-2D

823.28
REEP#2

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823
PC-1

823.97
Deep Well

823.39
PC-2

822.54
5-PC

823.09
Fridley Well 13

823.6
MW-106PC

822.08
REEP-2PC

828.11
MPCA MW-1

823.25

824.5

825.75

F:\GIS\Client\KRT-Kurt Mfr\2014\Projects\Figure X-KurtandAdjacent Wells.mxd

Figure 5a
October 2017 Ordovician PDC Potentiometric Contours
Kurt Manufacturing Facility
Fridley, Minnesota

LANDMARK ENVIRONMENTAL, LLC

Legend

Kurt Property Boundary

822.05
PC-2
GW Monitoring Stations

823
Potentiometric Contours
(0.25 ft. minor interval)

0 250 500 1,000 Feet

1 inch = 500 feet

N

Source: See Section 3.3 of the EDR for data source information for monitoring Well locations. Road shapefile provided by the MnDNR data bank.

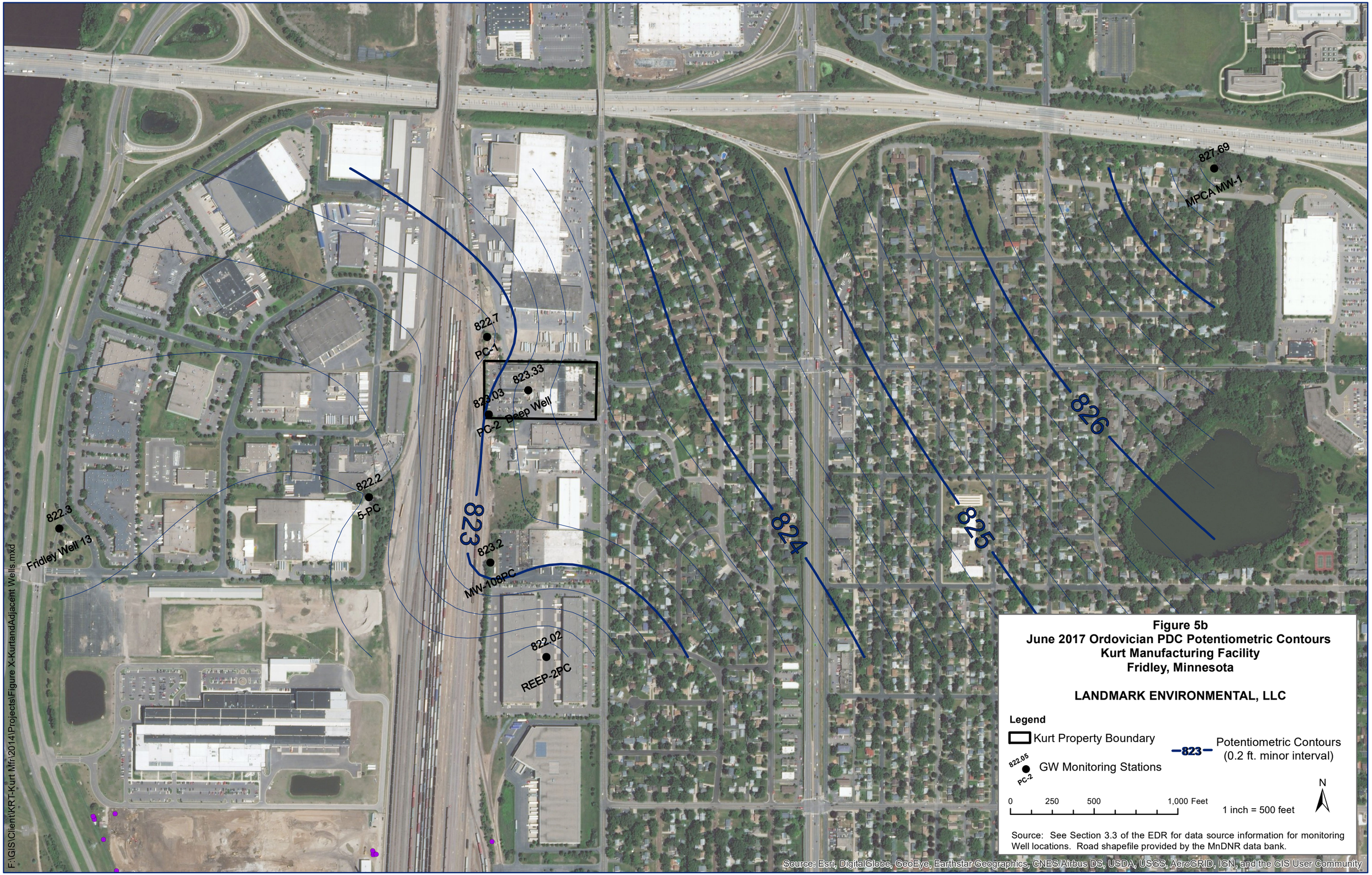

Figure 5b
June 2017 Ordovician PDC Potentiometric Contours
Kurt Manufacturing Facility
Fridley, Minnesota

LANDMARK ENVIRONMENTAL, LLC

Legend

- Kurt Property Boundary
- 822.05 PC-2 — GW Monitoring Stations
- 823 — Potentiometric Contours (0.2 ft. minor interval)

0 250 500 1,000 Feet

1 inch = 500 feet

N

Source: See Section 3.3 of the EDR for data source information for monitoring Well locations. Road shapefile provided by the MnDNR data bank.