

Ramona, Kansas, Corrective Action Monitoring Report for 2013

Environmental Science Division



United States Department of Agriculture

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Ramona, Kansas, Corrective Action Monitoring Report for 2013

by
Applied Geosciences and Environmental Management Section
Environmental Science Division, Argonne National Laboratory

August 2014



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Notation

| | |
|-------|--|
| AGEM | Applied Geosciences and Environmental Management |
| AMSL | above mean sea level |
| BGL | below ground level |
| °C | degree(s) Celsius |
| CAS | <i>Corrective Action Study</i> |
| CCC | Commodity Credit Corporation |
| CD | compact disc |
| EPA | U.S. Environmental Protection Agency |
| ft | foot (feet) |
| gal | gallon(s) |
| hr | hour(s) |
| in. | inch(es) |
| KDHE | Kansas Department of Health and Environment |
| L | liter(s) |
| µg/L | microgram(s) per liter |
| µS/cm | microsiemen(s) per centimeter |
| mg/L | milligram(s) per liter |
| mi | mile(s) |
| min | minute |
| mV | millivolt(s) |
| USDA | U.S. Department of Agriculture |
| VOC | volatile organic compound |

Ramona, Kansas, Corrective Action Monitoring Report for 2013

1 Introduction and Background

This report describes groundwater monitoring in 2013 for the property at Ramona, Kansas, on which a grain storage facility was formerly operated by the Commodity Credit Corporation of the U.S. Department of Agriculture (CCC/USDA). The monitoring was implemented on behalf of the CCC/USDA by Argonne National Laboratory and was conducted as specified in the *Long-Term Groundwater Monitoring Plan* (Argonne 2012) approved by the Kansas Department of Health and Environment (KDHE 2012).

Background information and details of the Ramona site investigation and the Ramona *Corrective Action Study* (CAS) were presented previously (Argonne 2005, 2007, 2011). The procedures followed for the monitoring activities in 2013 are described in the *Master Work Plan* (Argonne 2002) and the site-specific *Long-Term Groundwater Monitoring Plan* (Argonne 2012). Sampling is to be conducted in years 1, 2, 3 (if needed), 5, and 10 following the monitoring plan's issuance.

Ramona, Kansas, is a small rural town with 187 residents (2010 Census). Located in the north-central portion of Marion County, Ramona is 104 mi southwest of Topeka, Kansas, in the SE 1/4 of Section 2, Township 17 South, Range 3 East (Figure 1.1). Grain storage has occurred over the years at multiple locations in Ramona, including the former CCC/USDA facility and the facility operated by the Agri Producers, Inc., of Tampa, Kansas (the co-op). The co-op operates on the opposite side of the railroad right-of-way from the former CCC/USDA facility (Figure 1.2).

The former CCC/USDA facility operated from 1950 to 1966 on one acre of leased land in the southeastern part of Ramona. No structures remain on the property. The land is currently used for agriculture. The property (Figure 1.2) is privately owned by Byron and Julie Noeth (who reside at 506 East First Street) and is located within the Ramona municipal boundaries. For tax purposes, the property is zoned residential.

The principal water source for Ramona residents, including the Noeth family, is the Marion County Rural Water District #1. This public water supply was installed in 1995 with funding provided under an emergency grant by the USDA Farmers Home Administration.

Groundwater contamination resulting from grain storage activities has been detected at both the former CCC/USDA facility and the co-op, as summarized previously (Argonne 2005). Sources of the groundwater contamination associated with the co-op are under investigation. Studies by the CCC/USDA (Argonne 2007, 2011) indicate that the concentrations of carbon tetrachloride in groundwater that can potentially be attributed to past CCC/USDA activities are localized and isolated from groundwater being impacted by the co-op. In 2006, an investigation by the KDHE (with split sampling by Argonne) confirmed carbon tetrachloride and fuel source areas within the co-op property, upgradient from the former CCC/USDA facility, but found no evidence for contamination between the co-op property and the former CCC/USDA property (KDHE 2006).

Consistent with recommendations in the Ramona CAS (Argonne 2011) and the KDHE's *Agency Decision Statement* (KDHE 2011), one element of the remedial action selected to address groundwater at the former CCC/USDA facility is groundwater monitoring, as described in the *Long-Term Groundwater Monitoring Plan* (Argonne 2012). The results of monitoring of wells MW04-MW08 in 2012 were reported previously (Argonne 2013). This present report documents the results of the second year's monitoring in 2013, along with other activities. Sampling of the approved monitoring well network and three private water wells was conducted on October 9-10, 2013. Installation of two additional wells to expand the monitoring well network to the east (MW09 and MW10) occurred on December 17-19, 2013. The new wells were developed on January 22-23, 2014, and sampled on January 23, 2014.

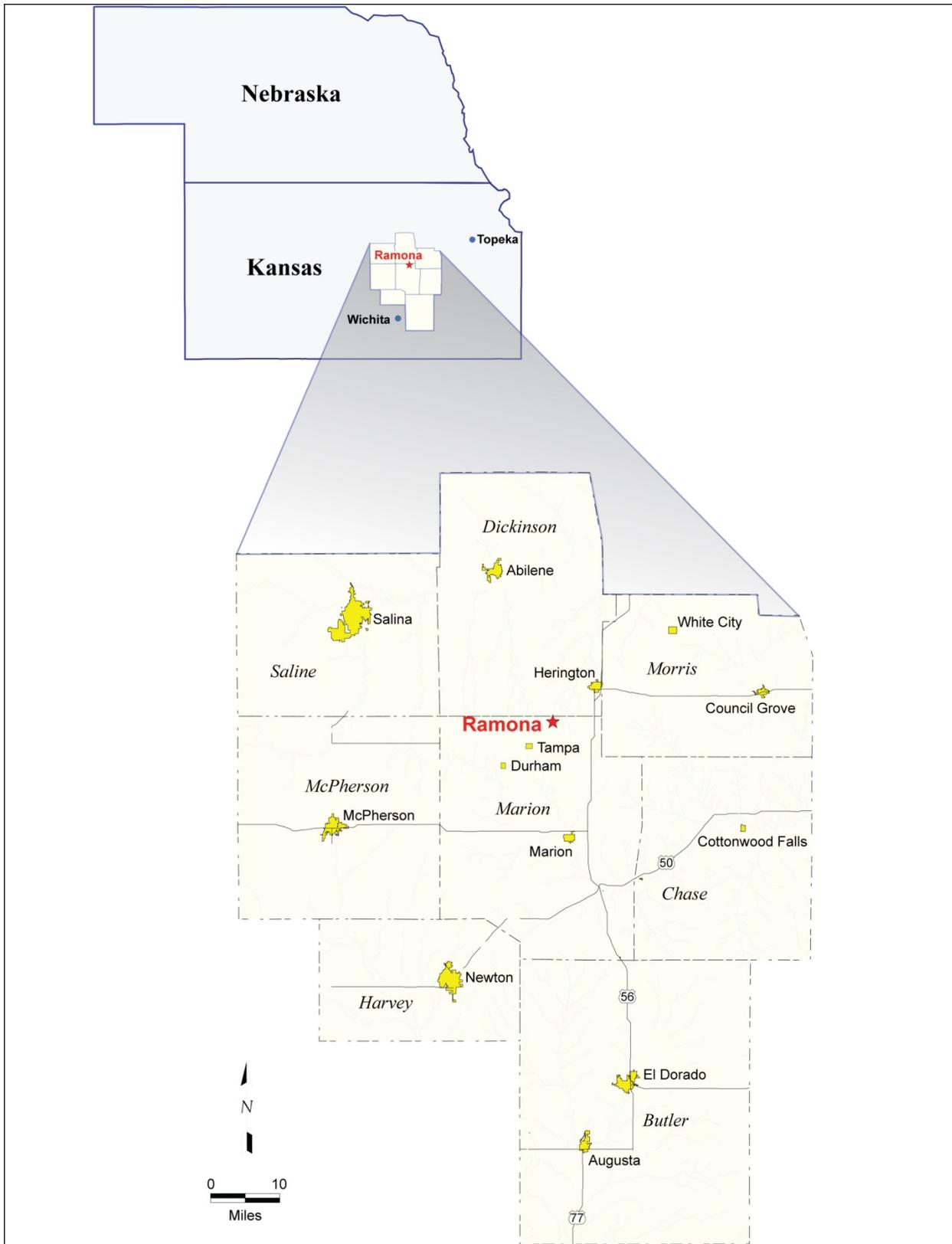


FIGURE 1.1 Location of Ramona, Kansas.

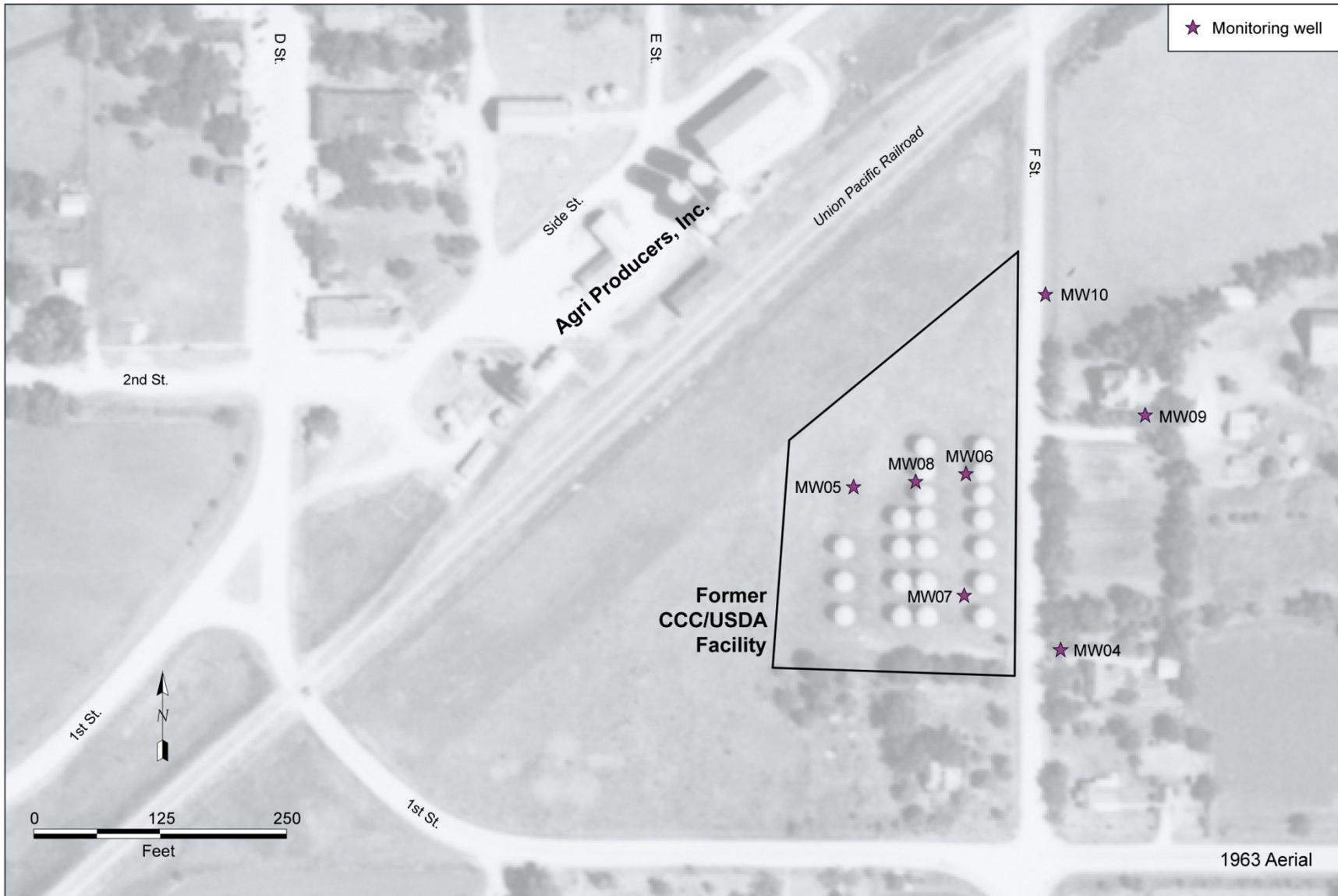


FIGURE 1.2 Boundary of the former CCC/USDA property and locations of monitoring wells MW04-MW10. Source of photograph: USGS (1963).

2 Sampling and Analysis in 2013-2014

2.1 Measurement of Groundwater Levels

Groundwater levels were measured continuously from July 2006 to November 2010 in wells MW04, MW05, MW06, MW07, and MW08 (Figure 1.2). The results demonstrated that groundwater flow is predominantly toward the north and northeast beneath the portion of the CCC/USDA facility impacted by carbon tetrachloride contamination. In the wider area, water level contours constructed by the KDHE (2006) and by Argonne (2011) also showed that groundwater flow is toward the north and northwest in the vicinity of the co-op property, as well as across much of the area to the west and northwest of the former CCC/USDA facility (Figure 2.12 in Argonne 2011).

Groundwater levels are now measured manually in conjunction with sampling activities, the direction of groundwater flow having been established through prior investigation. In 2013, water levels were measured in monitoring wells MW04, MW05, MW06, MW07, MW08, and the Svoboda private well, as discussed in Section 3.1. Groundwater levels were measured again at wells MW04-MW10 after wells MW09 and MW10 were developed in January 2014 (Section 2.3).

2.2 Well Sampling and Analyses

Groundwater samples were collected from monitoring wells MW04, MW05, MW06, MW07, and MW08 during the October 9-10, 2013, sampling event. In addition, the Riddle (formerly Bura), Svoboda (formerly Buxman), and Noeth private wells were sampled. Although the pump on the Svoboda (formerly Buxman) private well was not operational during the 2012 sampling event, permission was obtained from the owner to replace the pump and sample the well in 2013. The well locations designated for sampling in 2013 are shown in Figure 2.1. Construction information for these wells is in Table 2.1. Groundwater samples were also collected at wells MW09 and MW10 after they were developed in January 2014 (Section 2.3). A chronological summary of the field activities in 2013-2014 is in Appendix A, Table A.1.

Before implementation of the sampling procedure specified in the *Long-Term Groundwater Monitoring Plan* (Argonne 2012), a hand-held water level indicator was used to

measure the depth to groundwater and the total depth of each monitoring well, to within 0.01 ft, from the top of the well casing. After measurement of water levels, the monitoring wells were purged and sampled as specified (Section 3.3.1 in Argonne 2012). The Noeth and Riddle private wells were each sampled at their respective faucets after purging for 5 min, while the Svoboda private well was sampled after purging of 20 gal (Table A.1 in Appendix A). The field measurements on the groundwater samples are in Appendix A, Table A.2.

Groundwater samples designated for analyses for volatile organic compounds (VOCs) were collected in appropriate laboratory containers, labeled, packaged, and chilled to 4°C by placement in ice-filled coolers. The samples were shipped overnight to the Applied Geosciences and Environmental Management (AGEM) Laboratory at Argonne for VOCs analyses with U.S. Environmental Protection Agency (EPA) Method 524.2 (EPA 1995). Aliquots of selected samples (chosen in the field) were also shipped to TestAmerica Laboratories, Inc., South Burlington, Vermont, for verification VOCs analyses according to EPA Contract Laboratory Program protocols.

The analytical results are presented and discussed in Section 3.2.

2.3 Modifications to the Monitoring Well Network

In response to a KDHE (2013a) request to expand the monitoring well network at Ramona, the CCC/USDA inspected the Svoboda private well with a downhole camera during September 2013 to determine the feasibility of monitoring VOCs concentrations in this well. The inspection indicated that the poor condition of the well made it unsuitable for monitoring. Therefore, the CCC/USDA submitted a *Work Plan for Monitoring Well Installation at the Former CCC/USDA Facility in Ramona, Kansas* (Appendix B).

Permission was obtained from Svoboda for the installation of two additional wells on his property, east of the former CCC/USDA facility. Wells MW09 and MW10 were installed on December 17-19, 2013, at the locations shown in Figure 1.2, with KDHE (2014) approval. A replacement pump was provided for the existing Svoboda private well to facilitate its continued use as a lawn and garden well by the homeowner. Both wells MW09 and MW10 were completed with flush mounts and were screened to 45-55 ft below ground level (BGL). They were

developed during a subsequent field visit in January 2014 because of slow water recovery. Well registration is in progress and is documented in Appendix C.

In early January 2014, Argonne learned of a change in property ownership associated with the monitoring well network. The property formerly owned by Riddle had been purchased by Alcorn, who in early January 2014 indicated his intention to remove MW04. The CCC/USDA offered to remove MW04 as a courtesy. With the homeowner's permission, Argonne field staff removed the concrete and flush mount from MW04 on January 22, 2014, then plugged the well and pulled the casing on January 23, 2014. The surface was backfilled with native material. Registration of the abandonment is in progress and is documented in Appendix C. During the January 2014 site visit, wells MW09 and MW10 were developed.

Homeowners Alcorn, Noeth, and Svoboda have indicated that no additional monitoring well installations will be permitted on their respective properties.

2.4 Handling and Disposal of Investigation-Derived Waste

Purge water generated in October 2013 as potentially contaminated investigation-derived waste was containerized on-site. The accumulated purge water was sampled on October 24, 2013 (along with wastewater from several other CCC/USDA sites in Kansas), and analyzed by Pace Analytical Services, Inc., Lenexa, Kansas, on October 30, 2013. Methods used for analysis were EPA Method 5030/8260 for VOCs, EPA Method 504.1 for ethylene dibromide, and EPA Method 353.2 for nitrate/nitrite nitrogen. No VOCs were detected. Nitrate/nitrite nitrogen was present at 4.9 mg/L. The laboratory results are in Supplement 1, on the compact disc (CD) inside the back cover of this report. The water was delivered on December 4, 2013 (together with purge water from several other CCC/USDA investigation sites in Kansas), for disposal at the Sabetha publicly owned wastewater treatment plant, with the approval of the KDHE (2013b).

Purge water from installation, development, and sampling of wells MW09 and MW10 in December 2013 and January 2014 was containerized on-site and will be analyzed and taken for disposal in 2014.

2.5 Quality Control for Sample Collection, Handling, and Analysis

Quality assurance/quality control procedures followed during the 2013 monitoring event are described in detail in the *Master Work Plan* (Argonne 2002). The results are summarized as follows:

- Sample collection and handling activities were monitored by the documentation of samples as they were collected and the use of chain-of-custody forms and custody seals to ensure sample integrity during handling and shipment.
- Samples designated for VOCs analyses were received with custody seals intact and at the appropriate preservation temperature. All samples sent to the AGEM Laboratory were analyzed within the required holding times.
- Quality control samples collected to monitor sample-handling activities (a trip blank and an equipment rinsate) and method blanks analyzed with the samples to monitor analytical methodologies were all free of carbon tetrachloride and chloroform contamination. Analytical results for quality control samples collected to monitor sample-handling activities are in Appendix D, Table D.1.
- Groundwater samples were analyzed for VOCs at the AGEM Laboratory by the purge-and-trap method on a gas chromatograph-mass spectrometer system. Calibration checks analyzed with each sample delivery group were required to be within $\pm 20\%$ of the standard. Surrogate standard determinations performed on samples and blanks were within the specified range of 80-120% for all samples, in either the initial analysis or a successful reanalysis.
- Results from the AGEM Laboratory for duplicate analyses of three groundwater samples are in Appendix D, Table D.1. The results of the dual analyses compare well, with a relative percent difference value for carbon tetrachloride of less than 2% for concentrations above the method detection limit, indicating consistency in the sampling and analytical methodologies.

- In accordance with the procedures defined in the *Master Work Plan* (Argonne 2002), groundwater samples were submitted to a second laboratory (TestAmerica) for verification analysis according to the protocols of the EPA's Contract Laboratory Program. Documentation is in Supplement 2 (on CD). The results from TestAmerica are summarized in Appendix D, Table D.2. The TestAmerica results support the results from the AGEM Laboratory, with a relative percent difference value of approximately 7% for detections of carbon tetrachloride above the method detection limit. Neither laboratory detected VOCs in trip blank RAQCTB-W-36369 or methylene chloride in any of the samples, while both laboratories detected carbon tetrachloride and chloroform at similar concentrations in the samples from MW08 and the Svoboda private well. In addition, a trace chloroform concentration was detected by TestAmerica in trip blank RAQCTB-W-36376VER (estimated at 0.3 µg/L).

TABLE 2.1 Construction details for wells designated for sampling in 2013.

| Well | Kansas Registration Number ^a | Diameter (in.) | Depth (ft BGL) | | | | Casing Elevation (ft AMSL) |
|-------------------------|---|-------------------|--------------------|----------------------------|----------------|-----------------|----------------------------------|
| | | | Screen Interval | Filter Pack Interval | Water Level | Total | |
| <i>Monitoring wells</i> | | | | | | | |
| MW04 | 392881 | 1 | 45-55 | 44-55 | 55.5 | 55 | 1439.52 |
| MW05 | 393241 | 1 | 45-55 | 44-55 | 55.1 | 55 | 1435.19 |
| MW06 | 392883 | 1 | 45-55 | 44-55 | 55.6 | 55 | 1436.63 |
| MW07 | 392884 | 1 | 45-55 | 44-55 | 55.7 | 55 | 1438.15 |
| MW08 | 392885 | 1 | 45-55 | 44-55 | 55.5 | 55 | 1435.72 |
| <i>Private wells</i> | | | | | | | |
| Riddle ^b | — | — | — | — | — | 65 ^c | 1439.14 |
| Svoboda ^d | — | — | — | — | — | 75 | — |
| Noeth ^e | — | — | — | — | — | — | — |

^a Registration number in the Kansas Geological Survey well registration database.

^b Formerly Bura.

^c Information provided by well owner.

^d Formerly Buxman.

^e Formerly Chartier.

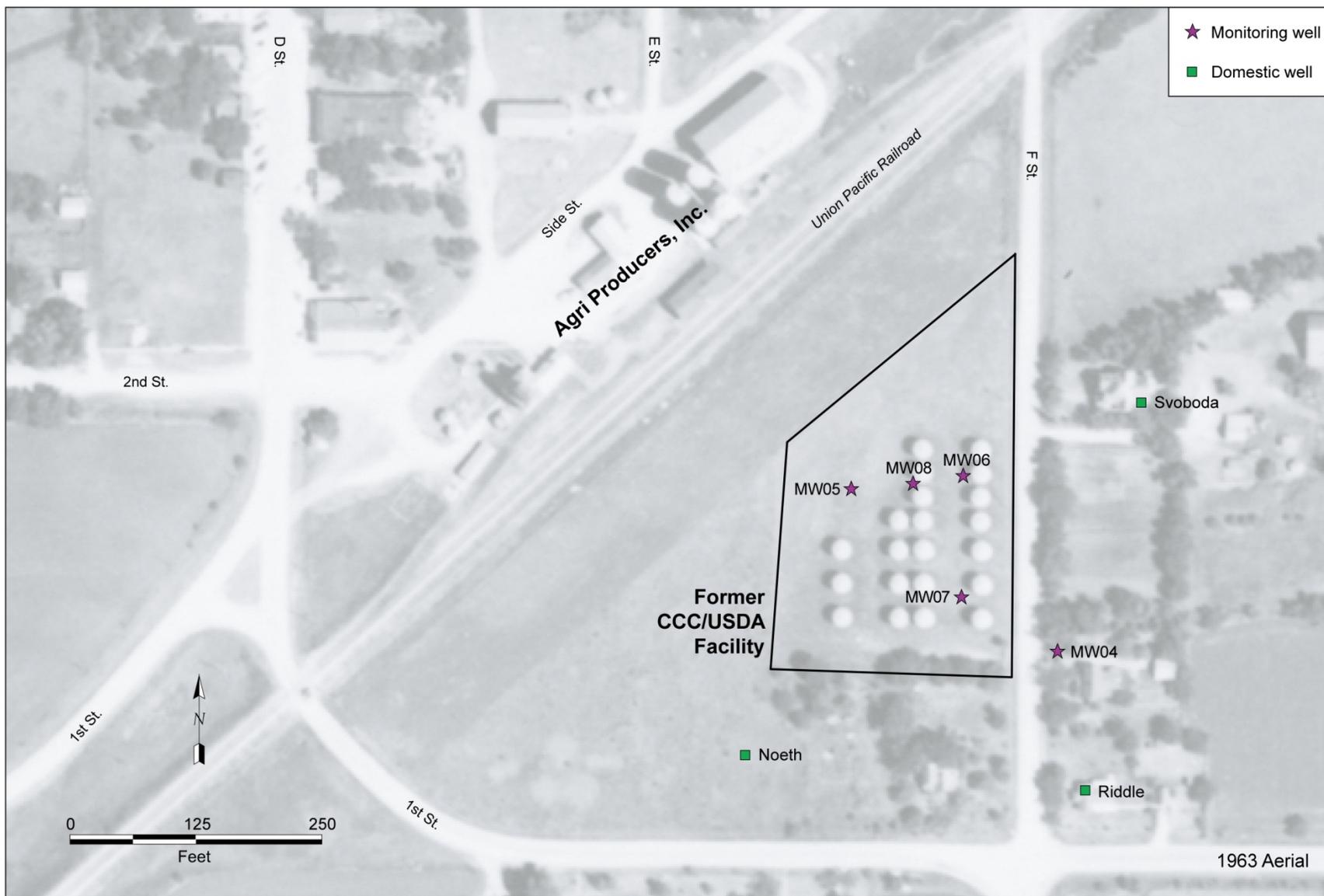


FIGURE 2.1 Locations of the wells designated for sampling in 2013. Source of photograph: USGS (1963).

3 Results and Discussion

3.1 Groundwater Level Data

Manual water level measurements taken during sampling on October 9-10, 2013, and again on January 17, 2014, are in Table 3.1, along with manual measurements made on April 27, 2009, for comparison. Figure 3.1 illustrates the potentiometric surface in the immediate vicinity of the former CCC/USDA property, for data collected on October 9-10, 2013. The potentiometric surface for January 17, 2014, is mapped in Figure 3.2. The maps indicate a predominant direction of groundwater flow to the north and northeast across the portion of the former CCC/USDA facility in which groundwater contamination has been identified, consistent with earlier findings (Argonne 2011, 2013).

3.2 Analytical Results for Volatile Organic Compounds in Groundwater Samples and Lateral Distribution of the Contaminants

The analytical data for VOCs in the groundwater samples collected in 2013-2014 are in Table 3.2, together with data for previous sampling events. The highest concentration of carbon tetrachloride in 2013 was found at well MW07 (located in the southeast portion of the former CCC/USDA facility and screened at 45-55 ft BGL). In this well, carbon tetrachloride was detected at 11 µg/L in October 2013, a value consistent with concentrations of 10-15 µg/L since April 2009.

The lateral distribution of carbon tetrachloride in groundwater in the sampling event in 2013 (Figure 3.1) is similar to the distribution in 2009 (Figure 2.9 in Argonne 2011). Carbon tetrachloride was not detected in the Noeth or Riddle private well in October 2013; carbon tetrachloride was detected in the Svoboda private well at 1.4 µg/L in October 2013. For comparison (Argonne 2005), in June 1994 carbon tetrachloride was detected in the Buxman (now Svoboda) private well at 2.2 µg/L (on-site analysis) and 1.7 µg/L (off-site analysis).

The distribution of chloroform in groundwater in 2013 is also similar to the distribution during previous sampling events. The highest concentration of chloroform in sitewide sampling has consistently been found at well MW07 (1.2-1.7 µg/L; Table 3.2). Well MW07 is located in the southeastern portion of the former CCC/USDA facility and is screened at 45-55 ft BGL. A

trace concentration of chloroform was detected in the Svoboda private well in October 2013. In June 1994, chloroform was not detected in the Buxman (now Svoboda) private well (Argonne 2005).

TABLE 3.1 Hand-measured groundwater levels.

| Well | Reference Elevation (ft AMSL) | April 27, 2009 | | October 9-10, 2013 | | January 17, 2014 | |
|----------------------|-------------------------------|-------------------------|---------------------------------|-------------------------|---------------------------------|-------------------------|---------------------------------|
| | | Depth to Water (ft BGL) | Water Level Elevation (ft AMSL) | Depth to Water (ft BGL) | Water Level Elevation (ft AMSL) | Depth to Water (ft BGL) | Water Level Elevation (ft AMSL) |
| MW04 ^a | 1439.52 | 46.00 | 1393.52 | 50.70 | 1388.82 | 53.30 | 1386.22 |
| MW05 ^a | 1435.19 | 46.70 | 1388.49 | 46.07 | 1389.12 | 49.18 | 1386.01 |
| MW06 ^a | 1436.63 | 49.20 | 1387.43 | 49.05 | 1387.58 | 51.83 | 1384.80 |
| MW07 ^a | 1438.15 | 49.20 | 1388.95 | 48.85 | 1389.30 | 52.00 | 1386.15 |
| MW08 ^a | 1435.72 | 47.00 | 1388.72 | 46.32 | 1389.40 | 49.50 | 1386.22 |
| MW09 ^b | 1437.90 | – | – | – | – | 51.95 | 1385.95 |
| MW10 ^b | 1435.08 | – | – | – | – | 46.70 | 1388.38 |
| SVOBODA ^c | 1439.40 | – | – | 51.00 | 1388.40 | – | – |

^a Reference elevation is the top of the well's casing.

^b The reference elevation is based on transit shots on December 18, 2013, comparing the tops of the MW05, MW06, and MW08 casings with the top of the MW09 or MW10 casing.

^c The reference elevation is based on transit shots on November 15, 2013, comparing the tops of the MW04-MW08 casings with the top of the concrete around the Svoboda well pit.

TABLE 3.2 Analytical results for volatile organic compounds in groundwater samples.^a

| Location | Sample | Sample Date | Depth (ft BGL) | | Concentration (µg/L) | | |
|-------------------------|----------------|-------------|-----------------|-------------|----------------------|------------|--------------------|
| | | | Screen Interval | Groundwater | Carbon Tetrachloride | Chloroform | Methylene Chloride |
| <i>Monitoring wells</i> | | | | | | | |
| MW04 | RATI16-W-21449 | 7/13/2006 | 45-55 | 51 | ND ^b | ND | ND |
| MW04 | RAMW4-W-21466 | 4/27/2009 | 45-55 | 46 | ND | ND | ND |
| MW04 | RAMW4-W-21472 | 4/28/2009 | 45-55 | – | ND | ND | ND |
| MW04 | RAMW4-W-21495 | 10/11/2012 | 45-55 | 51 | ND | ND | ND |
| MW04 | RAMW4-W-36359 | 10/10/2013 | 45-55 | 51 | 0.4 J ^c | ND | ND |
| MW05 | RATI17-W-21450 | 7/13/2006 | 45-55 | 47 | 0.9 J | 0.3 J | ND |
| MW05 | RAMW5-W-21467 | 4/27/2009 | 45-55 | 47 | 2.1 | ND | ND |
| MW05 | RAMW5-W-21473 | 4/28/2009 | 45-55 | – | 1.7 | 0.4 J | ND |
| MW05 | RAMW5-W-21496 | 10/10/2012 | 45-55 | 49 | 1.3 | 0.5 J | ND |
| MW05 | RAMW5-W-36360 | 10/9/2013 | 45-55 | 46 | 3.2 | 1.3 | ND |
| MW06 | RATI18-W-21452 | 7/13/2006 | 45-55 | 50 | 1.8 | 1.1 | ND |
| MW06 | RAMW6-W-21468 | 4/27/2009 | 45-55 | 49 | 1.5 | ND | ND |
| MW06 | RAMW6-W-21474 | 4/28/2009 | 45-55 | – | 2.4 | 0.3 J | ND |
| MW06 | RAMW6-W-21497 | 10/11/2012 | 45-55 | 51 | 8.2 | 1.0 | ND |
| MW06 | RAMW6-W-36361 | 10/9/2013 | 45-55 | 49 | 6.5 | 0.8 J | ND |
| MW07 | RATI19-W-21453 | 7/13/2006 | 45-55 | 50 | 6.3 | 1.6 | ND |
| MW07 | RAMW7-W-21469 | 4/27/2009 | 45-55 | 49 | 12 | 1.7 | ND |
| MW07 | RAMW7-W-21475 | 4/28/2009 | 45-55 | – | 10 | 1.7 | ND |
| MW07 | RAMW7-W-21498 | 10/11/2012 | 45-55 | 52 | 15 | 1.2 | ND |
| MW07 | RAMW7-W-36362 | 10/10/2013 | 45-55 | 49 | 11 | 1.4 | ND |
| MW08 | RATI20-W-21451 | 7/13/2006 | 45-55 | 47 | 0.7 J | ND | ND |
| MW08 | RAMW8-W-21470 | 4/27/2009 | 45-55 | 47 | ND | ND | ND |
| MW08 | RAMW8-W-21476 | 4/28/2009 | 45-55 | – | 0.8 J | ND | ND |
| MW08 | RAMW8-W-21499 | 10/10/2012 | 45-55 | 49 | 1.0 | ND | ND |
| MW08 | RAMW8-W-36363 | 10/9/2013 | 45-55 | 46 | 1.5 | 0.4 J | ND |

TABLE 3.2 (Cont.)

| Location | Sample | Sample Date | Depth (ft BGL) | | Concentration (µg/L) | | |
|--|-------------------|-------------|-----------------|-------------|----------------------|------------|--------------------|
| | | | Screen Interval | Groundwater | Carbon Tetrachloride | Chloroform | Methylene Chloride |
| <i>Monitoring wells (cont.)</i> | | | | | | | |
| MW09 | RAMW9-W-36374 | 1/23/2014 | 45-55 | 52 | 0.7 J | ND | ND |
| MW10 | RAMW10-W-36375 | 1/23/2014 | 45-55 | 46 | ND | ND | ND |
| <i>Private wells</i> | | | | | | | |
| Riddle (formerly Bura) | RARIDDLE-W-21503 | 10/10/2012 | – | – | ND | ND | ND |
| Riddle (formerly Bura) | RARIDDLE-W-36366 | 10/9/2013 | – | – | ND | ND | ND |
| Noeth | RANOETH-W-21501 | 10/10/2012 | – | – | ND | ND | ND |
| Noeth | RANOETH-W-36365 | 10/9/2013 | – | – | ND | ND | ND |
| DW47 (Buxman) | RADW47-W-02137 | 6/11/1994 | - | - | 2.2 ^d | ND | ND |
| Svoboda (formerly Buxman) ^e | Not sampled. | 10/10/2012 | – | – | – | – | – |
| Svoboda (formerly Buxman) | RASVOBODA-W-36368 | 10/10/2013 | – | – | 1.4 | 0.4 J | ND |

^a Because of the low productivity of the monitoring wells at Ramona, the following sampling strategy was used in April 2009: (1) a sample of the water available in each well casing was obtained; (2) the well was purged of three well volumes or to the extent possible; and (3) a second sample was collected after the well had recovered. In October 2012 and October 2013, samples were collected according to procedures in the *Monitoring Plan* (Argonne 2012).

^b ND, compound analyzed for but not detected at a level greater than or equal to the method detection limit (< 1 µg/L).

^c J, compound identified with an estimated concentration between the instrument detection limit and the method detection limit.

^d Analytical result from the on-site laboratory. The off-site analytical result was 1.7 µg/L.

^e The pump in the Svoboda (formerly Buxman) private well was not operational during the 2012 sampling event.

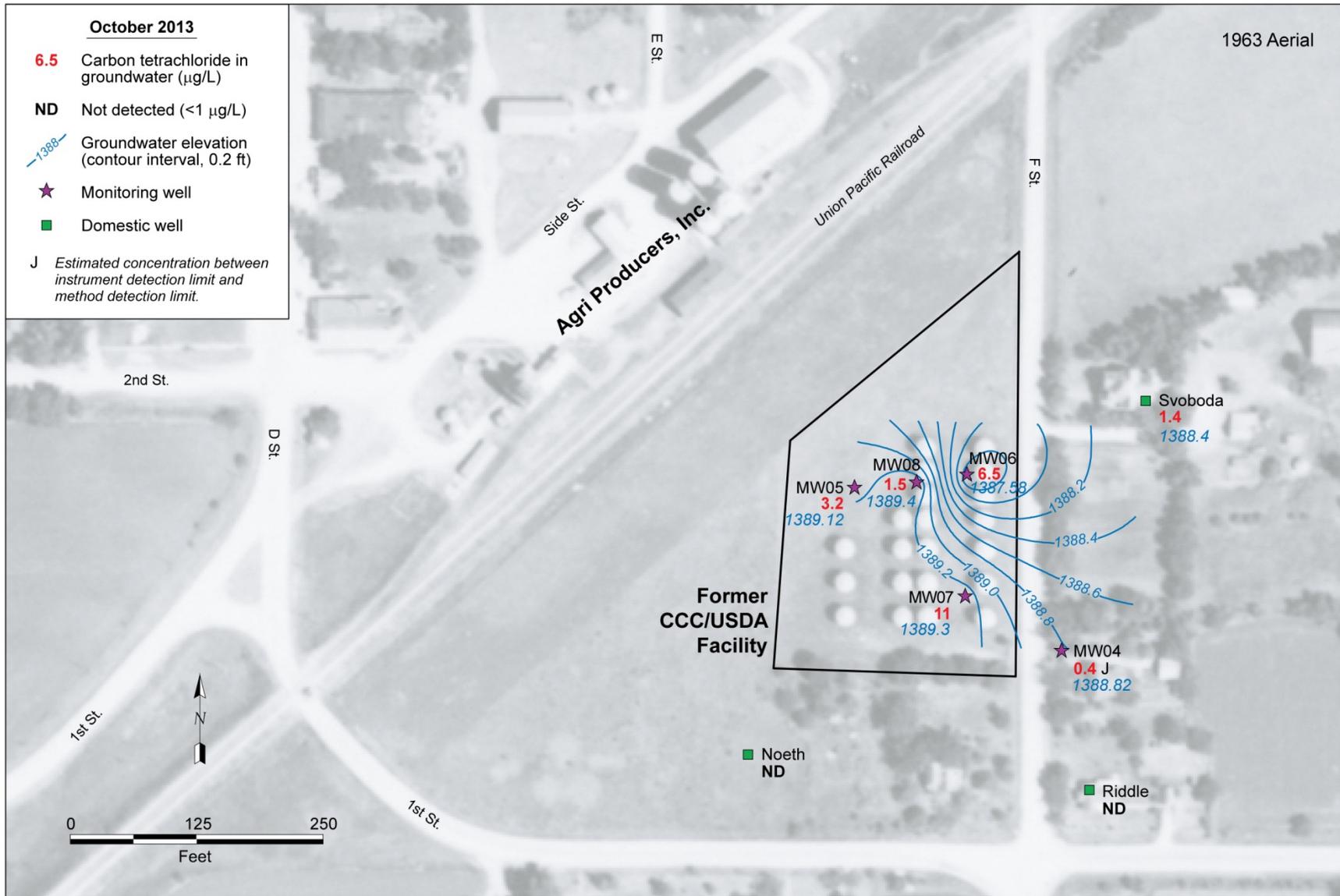


FIGURE 3.1 Distribution of carbon tetrachloride in groundwater samples collected in October 2013, with potentiometric surface interpreted from manual groundwater level measurements made on October 9-10, 2013.

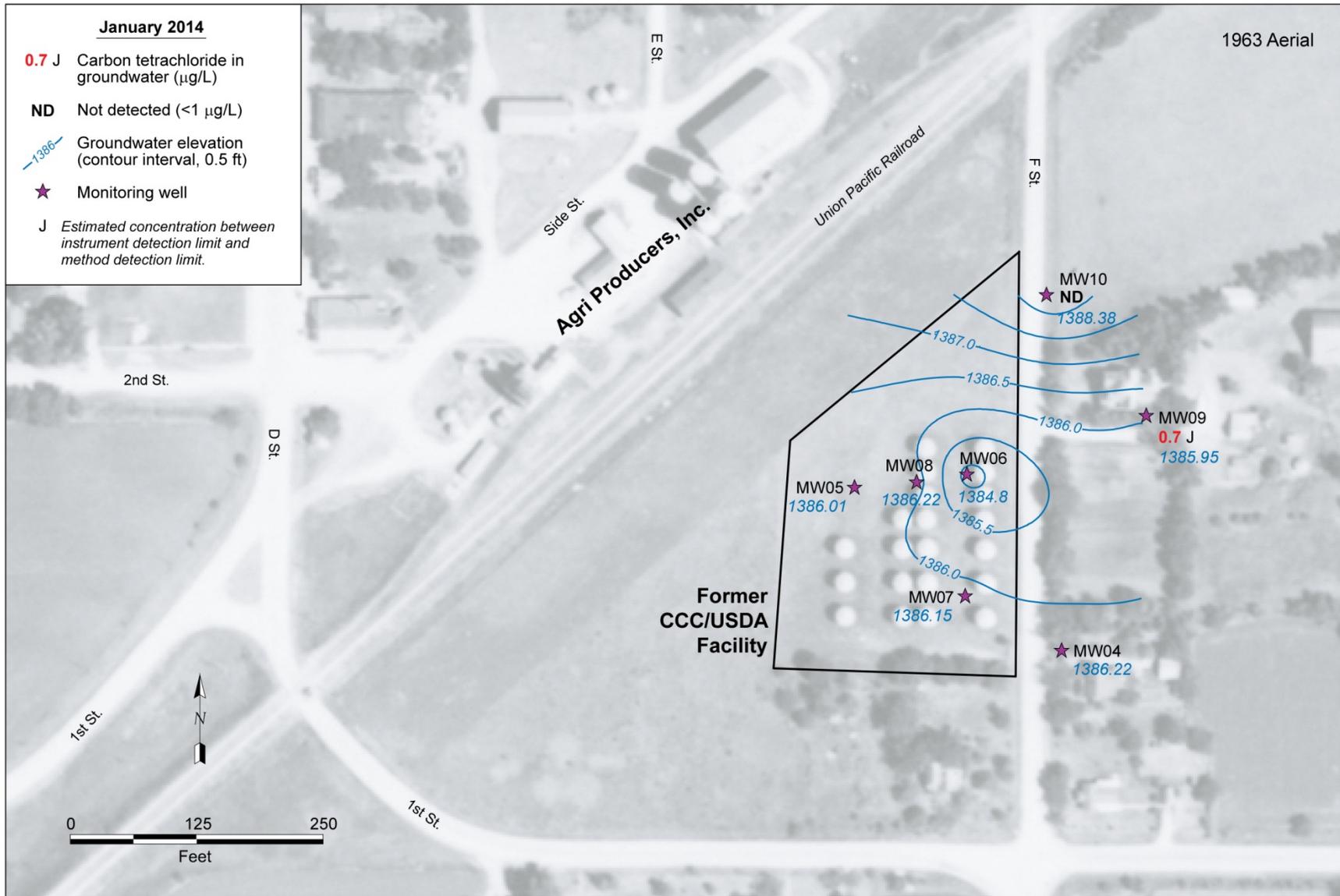


FIGURE 3.2 Carbon tetrachloride concentrations in groundwater samples collected in January 2014, with potentiometric surface interpreted from manual groundwater level measurements made on January 17, 2014.

4 Conclusions and Recommendations

4.1 Conclusions

The findings of the 2013-2014 activities at Ramona support the following conclusions:

- The site and the groundwater flow direction are well-characterized. The potentiometric surface and groundwater flow direction determined in 2013-2014 remain consistent with previous findings.
- The contamination on the former CCC/USDA property appears to be confined in proximity to the property boundaries. To date, carbon tetrachloride concentrations slightly exceeding the MCL for this contaminant (5.0 µg/L) have been detected at only two locations (MW06 and MW07) on the property. Carbon tetrachloride at unacceptable levels has not been detected at the remaining monitoring points or private wells identified in the KDHE-approved *Long-Term Monitoring Plan* (Argonne 2012), within or outside the former facility boundaries.
- The Svoboda private well to the east of the former CCC/USDA facility showed low concentrations of contamination in 2013, as it did in 1994. No evidence has been found to suggest that the contaminated area is expanding. The installation of two new monitoring wells (MW09 and MW10) in this area will increase confidence in future monitoring results. This action is consistent with the contingency measure in the *Long-Term Monitoring Plan* (Argonne 2012).
- The VOCs concentrations detected to date do not demonstrate a clear upward trend, although levels in on-site wells MW06 and MW07 have fluctuated slightly above the MCL.
- The results of the monitoring to date indicate that the selected corrective action is protective under current and future use scenarios, even though the current owner of the former CCC/USDA property has elected not to participate in the EUC program.

- The owners of the three properties on which monitoring wells are/have been located have stated their intention not to allow additional installations on their properties.

4.2 Recommendations

The findings of the 2013 monitoring support the following recommendations:

- The frequency of monitoring well sampling is defined in the *Long-Term Groundwater Monitoring Plan* (Argonne 2012). Under that plan, sampling is to occur in year 2 (2013); year 3, if needed (2014); year 5 (2016); and year 10 (2021). Sampling in 2014 is recommended to increase confidence in analytical results east of the former CCC/USDA facility. This recommendation is based on the following observations:
 - Decreases in carbon tetrachloride concentrations in wells MW06 and MW07.
 - Incremental changes in carbon tetrachloride concentrations in wells MW04, MW05, and MW08, all below the MCL.
 - Unchanged carbon tetrachloride concentrations in the Riddle well and the Noeth well.
 - Similar carbon tetrachloride concentrations in the Svoboda well in 2013 and 1994 (Argonne 2005), providing no evidence for changes in carbon tetrachloride concentrations in the apparent predominant direction of groundwater flow (to the north-northeast) over the intervening 19 years. Ongoing sampling of new wells MW09 and MW10 will increase confidence in analytical results east of the former CCC/USDA facility.
- Conduct annual evaluations of the use and condition of the Svoboda, Noeth, and Riddle wells.

- In view of the absence of contamination in the Noeth and Riddle private wells, resample these wells at five-year intervals (in 2016 and 2021), unless results for the monitoring well network indicate a change in contaminant concentrations or groundwater flow direction.

5 References

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KDHE, 2012, letter from H. Burke (Bureau of Environmental Remediation, Kansas Department of Health and Environment, Topeka) to C. Roe (Commodity Credit Corporation, U.S. Department of Agriculture, Washington, D.C.), regarding the Ramona *Long-Term Groundwater Monitoring Plan*, September 4.

KDHE, 2013a, letter from H. Burke (Bureau of Environmental Remediation, Kansas Department of Health and Environment, Topeka) to C. Roe (Commodity Credit Corporation, U.S. Department of Agriculture, Washington, D.C.), regarding responses to the KDHE Comments of May 1, 2013, on the *Ramona, Kansas, Corrective Action Monitoring Report for 2012*, September 17.

KDHE, 2013b, letter from H. Burke (Bureau of Environmental Remediation, Kansas Department of Health and Environment, Topeka) to C. Roe (Commodity Credit Corporation, U.S. Department of Agriculture, Washington, D.C.), regarding organic analysis results for investigation-derived wastewater from Kansas sites during 2013, November 25.

KDHE, 2014, letter from H. Burke (Bureau of Environmental Remediation, Kansas Department of Health and Environment, Topeka) to C. Roe (Commodity Credit Corporation, U.S. Department of Agriculture, Washington, D.C.), regarding plans for monitoring well installation at Ramona in December 2013, January 7.

USGS, 1963, aerial photograph AYG-2DD-253, U.S. Geological Survey, Washington, D.C., August 2.

Appendix A:

Sampling Activities and Field Measurements in 2013-2014

TABLE A.1 Sequence of groundwater sampling activities in 2013-2014.

| Sample Date | Location | Sample | Sample Type ^b | Depth (ft BGL) | Matrix ^c | Chain of Custody | Sample Description | |
|--|----------|--------|--------------------------|----------------|---------------------|------------------|--------------------|---|
| <i>October 2013 sampling^a</i> | | | | | | | | |
| 10/9/13 | 11:00 | QC | RAQCTB-W-36369 | TB | – | WQC | 1010130 | Trip blank sent to the AGEM Laboratory for organic analysis with water samples listed on chain-of-custody form 1010130. |
| 10/9/13 | 11:00 | QC | RAQCTB-W-36369VER | VER | – | WQC | 1010131 | Verification sample sent to TestAmerica. |
| 10/9/13 | 11:15 | MW04 | RAMW4GRAB-W-36354 | N | 45-55 | WG | 1010130 | Depth to water = 50.70 ft below the top of the casing (TOC). Depth of well = 55 ft. Grab sample collected without purging; bailer lowered to bottom of well and withdrawn. Sample not analyzed. |
| 10/9/13 | 11:15 | MW04 | RAMW4GRAB-W-36354VER | VER | 45-55 | WG | 1010131 | Verification sample sent to TestAmerica. Result not reported. |
| 10/9/13 | 11:40 | MW07 | RAMW7GRAB-W-36357 | N | 45-55 | WG | 1010130 | Depth to water = 48.85 ft TOC. Depth of well = 55 ft. Grab sample collected without purging; bailer lowered to bottom of well and withdrawn. Sample not analyzed. |
| 10/9/13 | 12:00 | QC | RAQCIR-W-36364 | RI | – | WQC | 1010130 | Rinsate of decontaminated sampling line after collection of sample RAMW7GRAB-W-36357. |
| 10/9/13 | 14:30 | MW06 | RAMW6GRAB-W-36356 | N | 45-55 | WG | 1010130 | Depth to water = 49.05 ft TOC. Depth of well = 55 ft. Grab sample collected without purging; bailer lowered to bottom of well and withdrawn. Sample not analyzed. |
| 10/9/13 | 15:12 | MW06 | RAMW6-W-36361 | N | 45-55 | WG | 1010130 | Sampled after purging of three well volumes with a Waterra pump (2.8 L). |
| 10/9/13 | 15:17 | MW08 | RAMW8GRAB-W-36358 | N | 45-55 | WG | 1010130 | Depth to water = 46.32 ft TOC. Depth of well = 55 ft. Grab sample collected without purging; bailer lowered to bottom of well and withdrawn. Sample not analyzed. |
| 10/9/13 | 15:38 | MW08 | RAMW8-W-36363 | N | 45-55 | WG | 1010130 | Sampled after purging of three well volumes with a Waterra pump (4.02 L). |
| 10/9/13 | 15:38 | MW08 | RAMW8-W-36363VER | VER | 45-55 | WG | 1010131 | Verification sample sent to TestAmerica. |
| 10/9/13 | 15:45 | MW05 | RAMW5GRAB-W-36355 | N | 45-55 | WG | 1010130 | Depth to water = 46.07 ft TOC. Depth of well = 55 ft. Grab sample collected without purging; bailer lowered to bottom of well and withdrawn. Sample not analyzed. |

TABLE A.1 (Cont.)

| Sample Date | Location | Sample | Sample Type ^b | Depth (ft BGL) | Matrix ^c | Chain of Custody | Sample Description | |
|--|----------|---------|--------------------------|----------------|---------------------|------------------|--------------------|---|
| <i>October 2013 sampling^a (cont.)</i> | | | | | | | | |
| 10/9/13 | 16:02 | MW05 | RAMW5-W-36360 | N | 45-55 | WG | 1010130 | Sampled after purging of three well volumes with a Waterra pump (4.2 L). |
| 10/9/13 | 16:02 | MW05 | RAMW5-W-36360DUP | DUP-L | 45-55 | WG | 1010130 | Duplicate laboratory analysis. |
| 10/9/13 | 17:30 | RIDDLE | RARIDDLE-W-36366 | N | – | WG | 1010130 | Sample collected from Riddle domestic well after pump was allowed to run for 5 min. |
| 10/9/13 | 18:08 | NOETH | RANOETH-W-36365 | N | – | WG | 1010130 | Sample collected from faucet on south side of Noeth home (connected to well in basement) after faucet was allowed to run for 5 min. |
| 10/10/13 | 11:08 | MW04 | RAMW4-W-36359 | N | 45-55 | WG | 1010130 | Sampled after purging dry with a Waterra pump (620 mL). |
| 10/10/13 | 11:15 | MW07 | RAMW7-W-36362 | N | 45-55 | WG | 1010130 | Sampled after purging dry with a Waterra pump (1.5 L). |
| 10/10/13 | 13:10 | SVOBODA | RASVOBODAGRAB-W-36367 | N | – | WG | 1010130 | Depth to water = 51 ft. Grab sample collected without purging. A bailer was lowered to the bottom of the well and withdrawn. |
| 10/10/13 | 14:14 | SVOBODA | RASVOBODA-W-36368 | N | – | WG | 1010130 | Ran 12-V pump down to 60 ft and purged 20 gal before collecting the sample. |
| 10/10/13 | 14:14 | SVOBODA | RASVOBODA-W-36368DUP | DUP-L | – | WG | 1010130 | Duplicate laboratory analysis. |
| 10/10/13 | 14:14 | SVOBODA | RASVOBODA-W-36368VER | VER | – | WG | 1010131 | Verification sample sent to TestAmerica. |
| <i>January 2014 sampling^d</i> | | | | | | | | |
| 1/23/14 | 11:20 | MW09 | RAMW9-W-36374 | N | 45-55 | WG | 123141 | Depth to water = 51.58 ft. Sampled after purging dry with a Waterra pump (600 mL). |
| 1/23/14 | 11:20 | MW09 | RAMW9-W-36374VER | VER | 45-55 | WG | 123142 | Verification sample sent to TestAmerica. |
| 1/23/14 | 11:40 | MW10 | RAMW10-W-36375 | N | 45-55 | WG | 123141 | Depth to water = 46.32 ft. Sampled after purging dry with a Waterra pump (2 L). |
| 1/23/14 | 11:40 | MW10 | RAMW10-W-36375DUP | DUP-L | 45-55 | WG | 123141 | Duplicate laboratory analysis. |
| 1/23/14 | 11:40 | MW10 | RAMW10-W-36375VER | VER | 45-55 | WG | 123142 | Verification sample sent to TestAmerica. |
| 1/23/14 | 12:00 | QC | RAQCTB-W-36376 | TB | – | WQC | 123141 | Trip blank sent to the AGEM Laboratory for organic analysis with water samples listed on COC 123141. |
| 1/23/14 | 12:00 | QC | RAQCTB-W-36376VER | VER | – | WQC | 123142 | Verification sample sent to TestAmerica. |

TABLE A.1 (Cont.)

- ^a Shipping date: October 10, 2013.
- ^b Sample type codes: DUP-L, laboratory duplicate; N, primary sample; RI, rinsate; TB, trip blank; VER, verification sample.
- ^c Matrix type codes: WG, groundwater; WQC, quality control water sample (e.g., trip blank).
- ^d Shipping date: January 23, 2014.

TABLE A.2 Field measurements for groundwater samples collected in 2013-2014.

| Well | Screen Interval (ft BGL) | Sample Date | Temperature (°C) | pH | Conductivity (µS/cm) | Dissolved Oxygen (mg/L) | Oxidation- Reduction Potential (mV) |
|------|-----------------------------|----------------|---------------------|------|-------------------------|-------------------------------|--|
| MW04 | 45-55 | 10/10/2013 | 17.7 | 6.98 | 749 | 7.53 | 149 |
| MW05 | 45-55 | 10/9/2013 | 15.7 | 7.18 | 681 | 7.60 | 158 |
| MW06 | 45-55 | 10/9/2013 | 18.4 | 7.45 | 582 | 10.03 | 135 |
| MW07 | 45-55 | 10/10/2013 | 17.6 | 7.24 | 661 | 8.42 | 156 |
| MW08 | 45-55 | 10/9/2013 | 16.0 | 7.12 | 619 | 8.00 | 163 |
| MW09 | 45-55 | 1/23/2014 | 12.0 | 6.20 | 720 | 22.72 | -21 |
| MW10 | 45-55 | 1/23/2014 | 12.9 | 6.98 | 7 | 22.00 | -75 |

Appendix B:

Monitoring Well Installation Work Plan

Monitoring Well Work Plan for Ramona, Kansas
December 6, 2013

1

Work Plan for Monitoring Well Installation at the Former CCC/USDA Facility in Ramona, Kansas, December 2013

Introduction

In response to the Kansas Department of Health and Environment (KDHE) comments of September 17, 2013, on *Ramona, Kansas, Corrective Action Monitoring Report for 2012*, the CCC/USDA submits this work plan for the installation of two wells. With the landowners' agreement, and upon KDHE approval, the well installation work plan will be implemented.

Background

The former CCC/USDA facility at Ramona is located at the southeastern edge of Ramona, Marion County, Kansas, as shown in Figure 1. The KDHE issued a *Final Agency Decision Statement (ADS)* for the Ramona facility on December 2, 2011. Investigations conducted in the vicinity determined that a nearby agribusiness facility was principally responsible for contamination in the city of Ramona, but that the former CCC/USDA facility could also be a source of groundwater contamination. The ADS noted that a "series of groundwater probes between the agribusiness and the former CCC/USDA site isolated contamination attributable to the CCC/USDA facility from that associated with the agribusiness facility." The ADS requires groundwater monitoring and the establishment of environmental use controls (EUCs) to restrict future use of the former CCC/USDA facility and prevent exposure to contaminated groundwater.

The CCC/USDA pursued reasonable measures to implement the EUC; however, the current property owner of the former CCC/USDA facility elected to not participate in the EUC program. The KDHE was also unable to persuade the property owner to enter into an EUC agreement. The CCC/USDA planned and implemented a long-term groundwater monitoring program as part of the monitoring requirement in the ADS. On the basis of results from previous sampling events, the KDHE requested the submittal of this well installation work plan to augment the current monitoring well network.

Well Location Selection and Rationale

Two additional monitoring wells, MW09 and MW10, will be installed at the approximate locations shown in Figure 2. This figure also depicts the locations of the existing monitoring wells (MW04-MW08).

Well MW09 will be installed just west of the inactive Svoboda private drinking water well (Figure 2). Proposed well MW09 will be constructed in the same manner as those in the existing monitoring well network, in keeping with KDHE requirements.

Monitoring Well Work Plan for Ramona, Kansas
December 6, 2013

2

As requested by the KDHE, an additional monitoring well, MW10, is proposed (Figure 2) to address concerns about contaminant migration north of wells MW06 and MW08. The presence of MW10 will help to verify the extent of groundwater contamination. Well MW10 will also be constructed in keeping with KDHE requirements, as are existing wells MW04-MW08, to ensure the recovery of comparable groundwater samples.

Well Construction

The Argonne 22-ton, track-mounted crawler cone penetrometer (CPT) vehicle will be used to install the monitoring wells, in accord with procedures outlined in *Final Master Work Plan: Environmental Investigations at Former CCC/USDA Facilities in Kansas, 2002 Revision*. At each location, CPT electronic logs of tip pressure, sleeve friction, conductivity (if possible), and tip:sleeve ratio will be obtained to aid in characterization of the site-specific geology and hydrogeology. On the basis of these logs, one or more depth intervals (to be determined during the installation) in each boring may be selectively cored to confirm the lithologic/hydrologic units present and ensure continuity of sampling/screened zones with those in the existing monitoring well network. The proposed wells will be installed with the CPT as 1-in.-diameter monitoring wells, in accord with KDHE requirements. The specific depth interval to be screened in each well will be selected, with CCC/USDA and KDHE approval, on the basis of the electronic log and sediment core data obtained at each location. Previous Argonne findings for this site suggest possible well depths of 45-55 ft below ground level (BGL). Each well will be constructed by using either a flush-mount or stick-up surface completion, at the request of the property owner. Proposed well depths and screen intervals for the new wells are summarized in Table 1. The wells will be developed in accord with KDHE requirements. In addition, the wells will be surveyed for confirmation of surface elevation.

Well Sampling

Upon completion, wells MW09 and MW10 will be sampled for the analytical suite described in the *Long-Term Groundwater Monitoring Plan* for the existing wells in the monitoring network.

Monitoring Well Work Plan for Ramona, Kansas
December 6, 2013

3

TABLE 1 Depths and screen intervals of proposed monitoring wells
MW09 and MW10.

| Well | Depth (ft BGL) | | |
|------|---|-------|-----------------|
| | To Groundwater (estimated ^a) | Total | Screen Interval |
| MW09 | 50 | 55 | 45-55 |
| MW10 | 50 | 55 | 45-55 |

^b Depth based on October 2013 groundwater levels.

Monitoring Well Work Plan for Ramona, Kansas
December 6, 2013

4

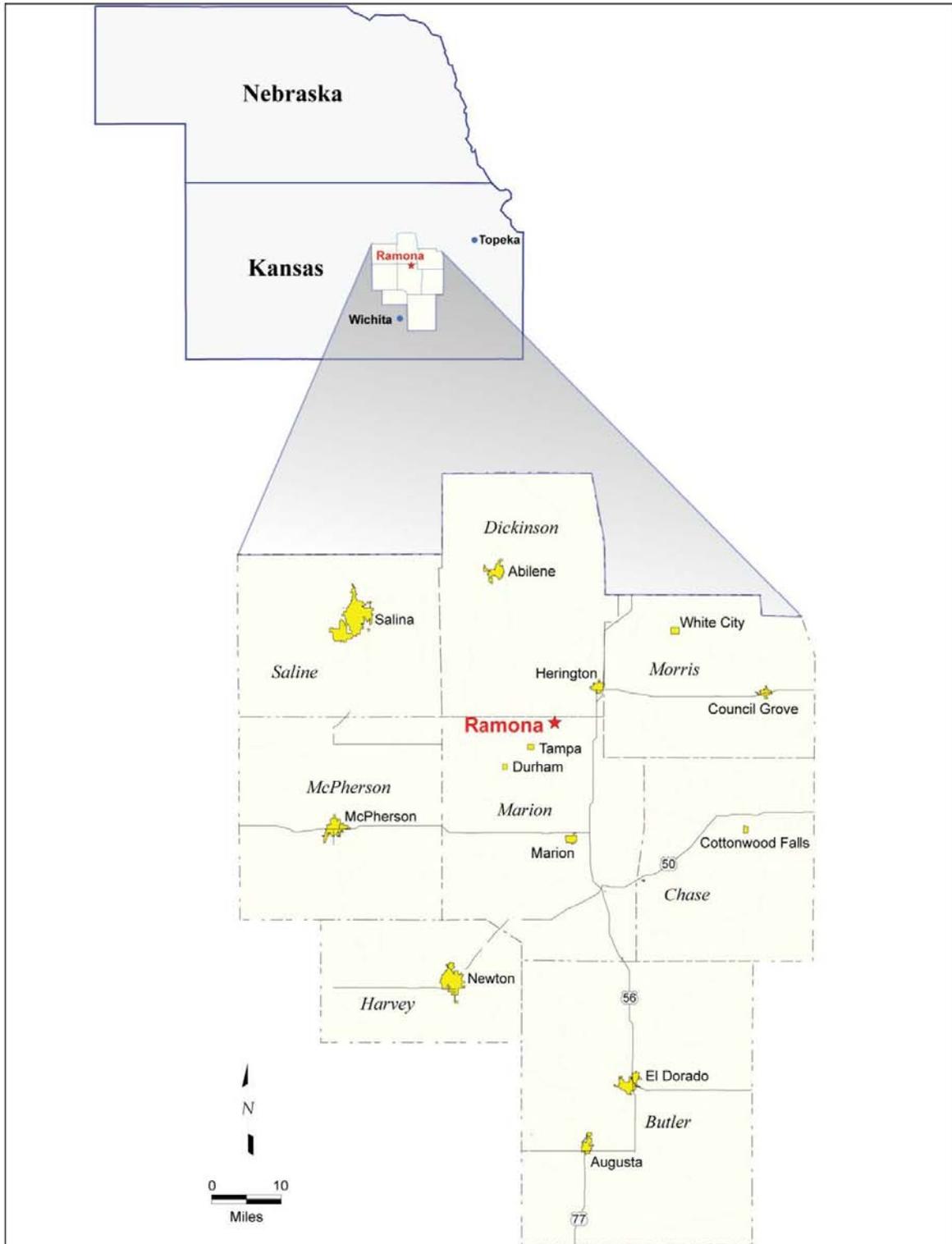


FIGURE 1 Location of Ramona, Kansas.

Monitoring Well Work Plan for Ramona, Kansas
December 13, 2013, Revised MW10 Location

5

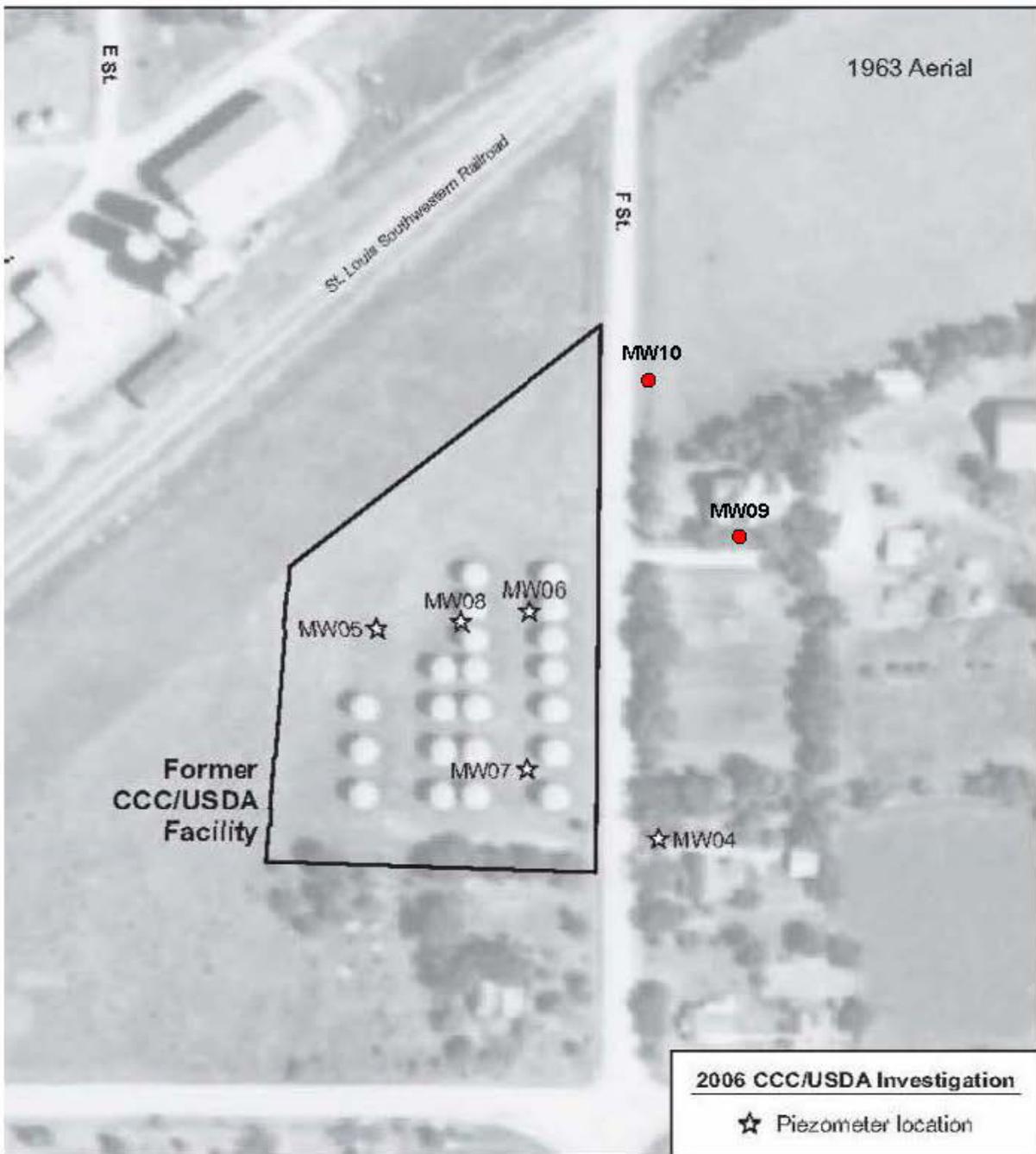


FIGURE 2 Locations of existing and proposed monitoring wells. Source of photograph: USGS, 1963, aerial photograph AYG-2DD-253, U.S. Geological Survey, Washington, D.C., August 2.

KDHE-BER Remedial Section Field Activities Notification Form

This amends a previous notification. ID : 9793344

Reason for amendment :

*Project Name: Expansion of Monitoring Well Network at Ramona, Kansas

*KDHE Project Manager: O'Halloran, Maura

Location of work:

*County: MARION

City (or nearest city): Ramona, Kansas

Anticipated dates and duration of work:

*Start Date (mm/dd/yy): 12/17/2013

*Duration of work (days): 2-3

Check this box if work is expected to occur on any weekend or holiday days.

Primary Field Contact:

*Name: Iorraine M. LaFreniere

*Affiliation/Company: Argonne national Laboratory

*Primary Phone Number: 630-252-7969

Alternate Phone Number(s): 630-967-8701

Email Address: lafreniere@anl.gov

Alternate Contact:

*Name: Travis kamler

*Affiliation/Company: TCW Construction, Inc

*Primary Phone Number: 402-416-7255

Alternate Phone Number(s):

Email Address: tkamler@tcwconstrction.com

***Brief Description of Work to Be Performed**

(Include persons, nature of activities, general location information, and anticipated schedule of activities):

Installation of two additional monitoring wells to augment the existing Ramona monitoring well network per KDHE request.

If you have any problems using this form, please call 785-296-1673

* Indicates a required field.

Appendix C:

**Documentation for Abandonment of Well MW04 and Construction of
Wells MW09 and MW10**

Appendix C Contents

| | |
|--|------|
| MW04 Water Well Record (WWC-5) (2006) | C-3 |
| MW04 Water Well Plugging Record (WWC-5P) | C-4 |
| MW09 Lithology Description..... | C-5 |
| MW09 Electronic Log | C-6 |
| MW09 Water Well Record (WWC-5)..... | C-7 |
| MW10 Lithology Description..... | C-8 |
| MW10 Electronic Log | C-9 |
| MW10 Water Well Record (WWC-5)..... | C-10 |

WATER WELL RECORD Form WWC-5 KSA 82a-1212 ID No. **WW-04**

| | | | | | | |
|---|-------|--|---------------------------|-------------------------|---------------------------------|---------------------------|
| 1 LOCATION OF WATER WELL: | | Fraction SW ¼ SW ¼ SW ¼ | | Section Number 1 | Township Number T 17 S N | Range Number R 3 E |
| County: Marion | | | | | | |
| Distance and direction from nearest town or city street address of well if located within city? | | | | | | |
| 2 WATER WELL OWNER: USDA/CCC | | | | | | |
| RR#, St. Address, Box #: Stop 0513, Room 4717-S/ 1400 Independence Ave SW | | | | | | |
| City, State, ZIP Code: Washington, DC 20250-0513 | | | | | | |
| Board of Agriculture, Division of Water Resources Application Number: | | | | | | |
| 3 LOCATE WELL'S LOCATION WITH AN "X" IN SECTION BOX: | | 4 DEPTH OF COMPLETED WELL 55.5 ft. ELEVATION: 1,440.093' | | | | |
| | | Depth(s) Groundwater Encountered 1 51 ft. 2 N/A ft. 3 N/A ft. | | | | |
| | | WELL'S STATIC WATER LEVEL 51 ft. below land surface measured on mo/day/yr 09/28/06 | | | | |
| | | Pump test data: Well water was N/A ft. after N/A hours pumping N/A gpm | | | | |
| | | Est. Yield N/A gpm: Well water was N/A ft. after N/A hours pumping N/A gpm | | | | |
| Bore Hole Diameter 4.25 in. to 21 ft. and 3.25 Pilot in. to 55.5 ft. | | WELL WATER TO BE USED AS: 5 Public water supply 8 Air conditioning 10 Injection well | | | | |
| 1 Domestic 3 Feed lot 6 Oil field water supply 9 Dewatering 11 Other (Specify below) | | 2 Irrigation 4 Industrial 7 Lawn and garden (domestic) 10 Monitoring well 12 Sand Point MW | | | | |
| Was a chemical/bacteriological sample submitted to Department? Yes No X If yes, mo/day/yr sample was submitted N/A Water Well Disinfected? Yes No X | | | | | | |
| 5 TYPE OF BLANK CASING USED: | | | | | | |
| 1 Steel 3 RMP (SR) 6 Asbestos-Cement 9 Other (specify below) | | 5 Wrought Iron 8 Concrete tile CASING JOINTS: Glued Clamped | | | | |
| 2 PVC 4 ABS 7 Fiberglass | | Welded X Threaded X | | | | |
| Blank casing diameter 1" in. to 45 ft. Dia N/A in. to N/A ft. Dia N/A in. to N/A ft. | | | | | | |
| Casing height above land surface Flush Mount in., weight Schedule 40 lbs./ft. Wall thickness or gauge No. .133" | | | | | | |
| TYPE OF SCREEN OR PERFORATION MATERIAL: | | | | | | |
| 1 Steel 3 Stainless steel 5 Fiberglass 8 RMP (SR) 10 Asbestos-cement | | 2 Brass 4 Galvanized steel 6 Concrete tile 9 ABS 11 Other (specify) | | | | |
| 2 Louvered shutter 4 Key punched 7 Torch cut 10 Other (specify) | | 3 Mill slot 5 Gauzed wrapped 8 Saw cut 11 None (open hole) | | | | |
| 1 Continuous slot 3 Mill slot 6 Wire wrapped 9 Drilled holes | | 2 Louvered shutter 4 Key punched 7 Torch cut 10 Other (specify) | | | | |
| SCREEN-PERFORATED INTERVALS: From 45 ft. to 55 ft. From _____ ft. to _____ ft. | | | | | | |
| GRAVEL PACK INTERVALS: From 44 ft. to 55 ft. From _____ ft. to _____ ft. | | | | | | |
| 6 GROUT MATERIAL: 1 Neat cement 2 Cement grout 3 Bentonite 4 Other BenSeal Chips | | | | | | |
| Grout intervals From 40 (#3) ft. to 0.5 ft. From 44 (#4) ft. to 40 ft. From N/A ft. to N/A ft. | | | | | | |
| What is the nearest source of possible contamination: | | | | | | |
| 1 Septic tank 4 Lateral lines 7 Pit privy 10 Livestock pens 14 Abandoned water well | | 2 Sewer lines 5 Cess pool 8 Sewage lagoon 11 Fuel storage 15 Oil well/ Gas well | | | | |
| 3 Watertight sewer lines 6 Seepage pit 9 Feedyard 12 Fertilizer storage 16 Other (specify below) | | Direction from well? 200' East | | | | |
| How many feet? 200' East | | | | | | |
| FROM | TO | CODE | LITHOLOGIC LOG | FROM | TO | PLUGGING INTERVALS |
| 0 | 2' | | Top Soil | | | |
| 2' | 46' | | Silt and Clay | | | |
| 46' | 47' | | Silty Clay | | | |
| 47' | 48' | | Silty Clay with some Sand | | | |
| 48' | 54' | | Silty Clay and Sand | | | |
| 54' | 55.5' | | Clay and Silt | | | |
| 7 CONTRACTOR'S OR LANDOWNER'S CERTIFICATION: This water well was (1) constructed, (2) reconstructed, or (3) plugged under my jurisdiction and was completed on (mo/day/yr) 09/27/06 and this record is true to the best of my knowledge and belief. Kansas Water Well Contractor's License No. 680 This Water Well Record was completed on (mo/day/yr) 10-13-06 under the business name of Delta Environmental by (signature) <i>[Signature]</i> | | | | | | |
| INSTRUCTIONS: Please fill in blanks and circle the correct answers. Send three copies to Kansas Department of Health and Environment, Bureau of Water, 1000 S.W. Jackson St., Exp. 420, Topeka, Kansas 66612-1387. Telephone: 913-205-5545. Send one to WATER WELL OWNER and retain one for your records. | | | | | | |

WATER WELL PLUGGING RECORD Form WWC-5P KSA 82a-1212 ID NO.

1 LOCATION OF WATER WELL: Fraction SW 1/4 SW 1/4 SW 1/4 SW 1/4 Section Number 1 Township Number T 17 S Range Number 3 E W

Street/Rural Address of Well Location; if unknown, distance & direction from nearest town or intersection: If at owner's address, check here

Global Positioning Systems (GPS) information:

Latitude: _____ (in decimal degrees)

Longitude: _____ (in decimal degrees)

Elevation: 1,440.093'

Datum: WGS84, NAD83, NAD27

Collection Method:

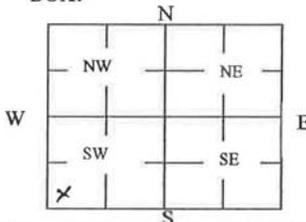
GPS unit (Make/Model: _____)

Digital Map/Photo, Topographic Map, Land Survey

Est. Accuracy: < 3 m, 3-5 m, 5-15 m, > 15 m

2 WATER WELL OWNER: CCC/UDA
RR#, St. Address, Box #: Stop0518, ROOM 4717-S
City, State ZIP Code: Washington, DC 20250-0513

3 MARK WELL'S LOCATION WITH AN "X" IN SECTION BOX:



4 DEPTH OF WELL 55 ft.

WELL'S STATIC WATER LEVEL 28 ft

WELL WAS USED AS:

- Domestic
- Irrigation
- Feedlot
- Industrial

- Public Water Supply
- Oil Field Water Supply
- Domestic (Lawn & Garden)
- Air Conditioning

- Dewatering
- Monitoring
- Injection Well
- Other sand in tank

Was a chemical/bacteriological sample submitted to Department? Yes No

5 TYPE OF BLANK CASING USED:

- Steel
- PVC
- RMP (SR)
- ABS
- Wrought
- Asbestos-Cement
- Fiberglass
- Concrete Tile
- Other (Specify below) _____

Blank casing diameter 1 in. Was casing pulled? Yes No If yes, how much 55'
Casing height above or below land surface 0 in.

6 GROUT PLUG MATERIAL: Neat cement Cement grout Bentonite Other _____

Grout Plug Intervals: From 55 ft. to 0 ft., From N/A ft. to N/A ft., From N/A to N/A ft.

What is the nearest source of possible contamination:

- Septic tank
- Sewer lines
- Watertight sewer lines
- Lateral lines
- Cess pool
- Seepage pit
- Pit privy
- Sewage lagoon
- Feedyard
- Livestock pens
- Fuel Storage
- Fertilizer storage
- Insecticide storage
- Abandoned water well
- Oil well/Gas well
- Other (specify below) _____

Direction from well? E
How many feet? 200

| FROM | TO | PLUGGING MATERIALS | FROM | TO | PLUGGING MATERIALS |
|------|----|-----------------------------------|------|----|--------------------|
| 55' | 0' | Trimmed Bentonite Grout from T.D. | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

7 CONTRACTOR'S OR LANDOWNER'S CERTIFICATION: This water well was plugged under my jurisdiction and was completed on (mo/day/year) 2/15/14 and this record is true to the best of my knowledge and belief. Kansas Water Well Contractor's License No. 630. This Water Well Record was completed on (mo/day/year) 2/15/14 under the business name of Delta Environmental by (signature) [Signature]

INSTRUCTIONS: Use typewriter or ballpoint pen. Please press firmly and print clearly. Please fill in blanks, underline or circle the correct answers. Send one copy to Kansas Department of Health and Environment, Bureau of Water, Geology Section, 1000 SW Jackson St., Ste. 420, Topeka, Kansas 66612-1367. Telephone: 785/296-5524. Send one to Water Well Owner and retain one for your records. Visit us at <http://www.kdheks.gov/waterwell/index.html>.

Argonne National Laboratory

Well ID: MW09

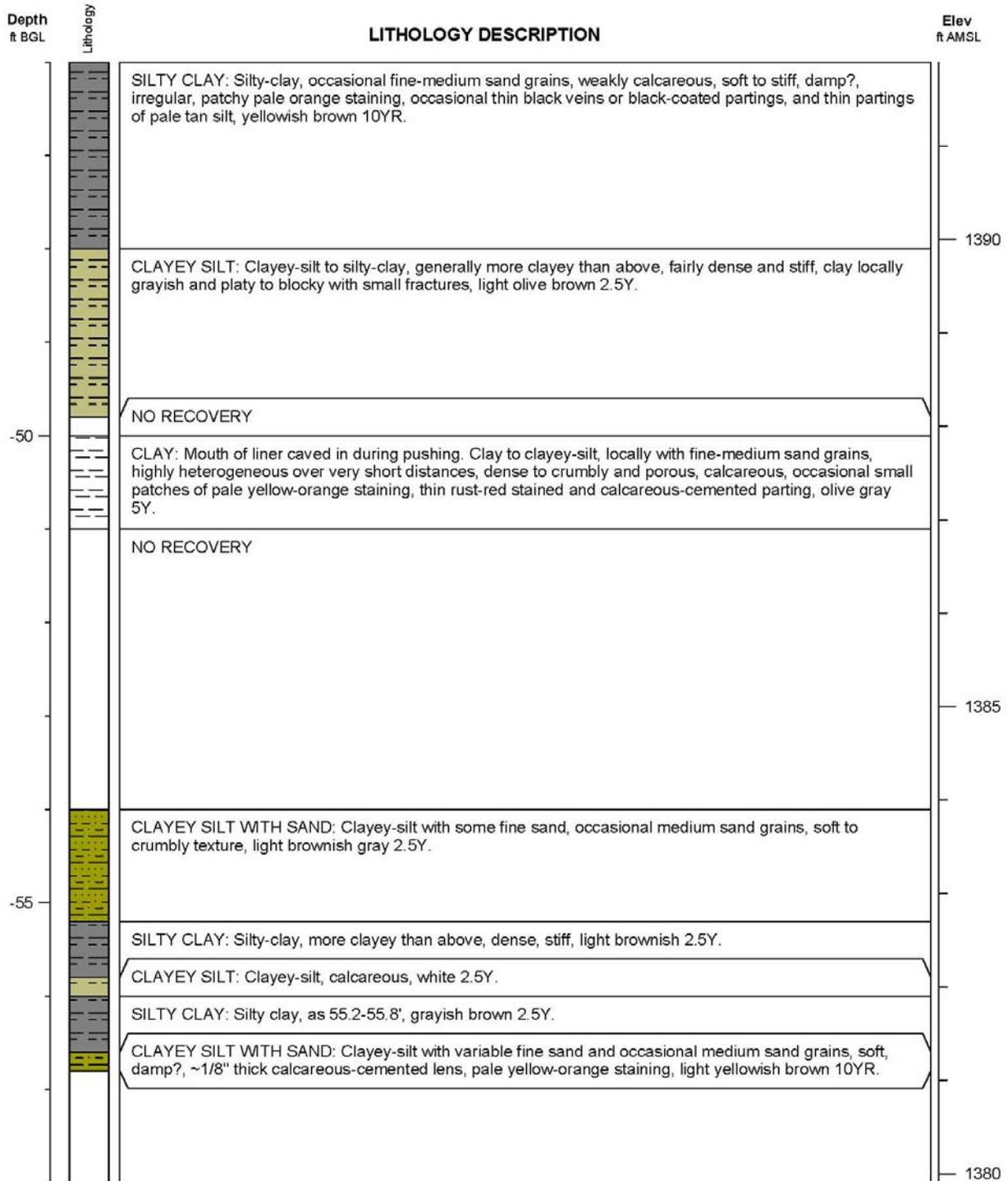
Project: Ramona, KS

Elevation: 1437.90 ft

Log Date: 12/17/2013

Geologist: Bob Sedivy

Depth: 58 ft BGL



Argonne National Laboratory

Boring ID: MW09

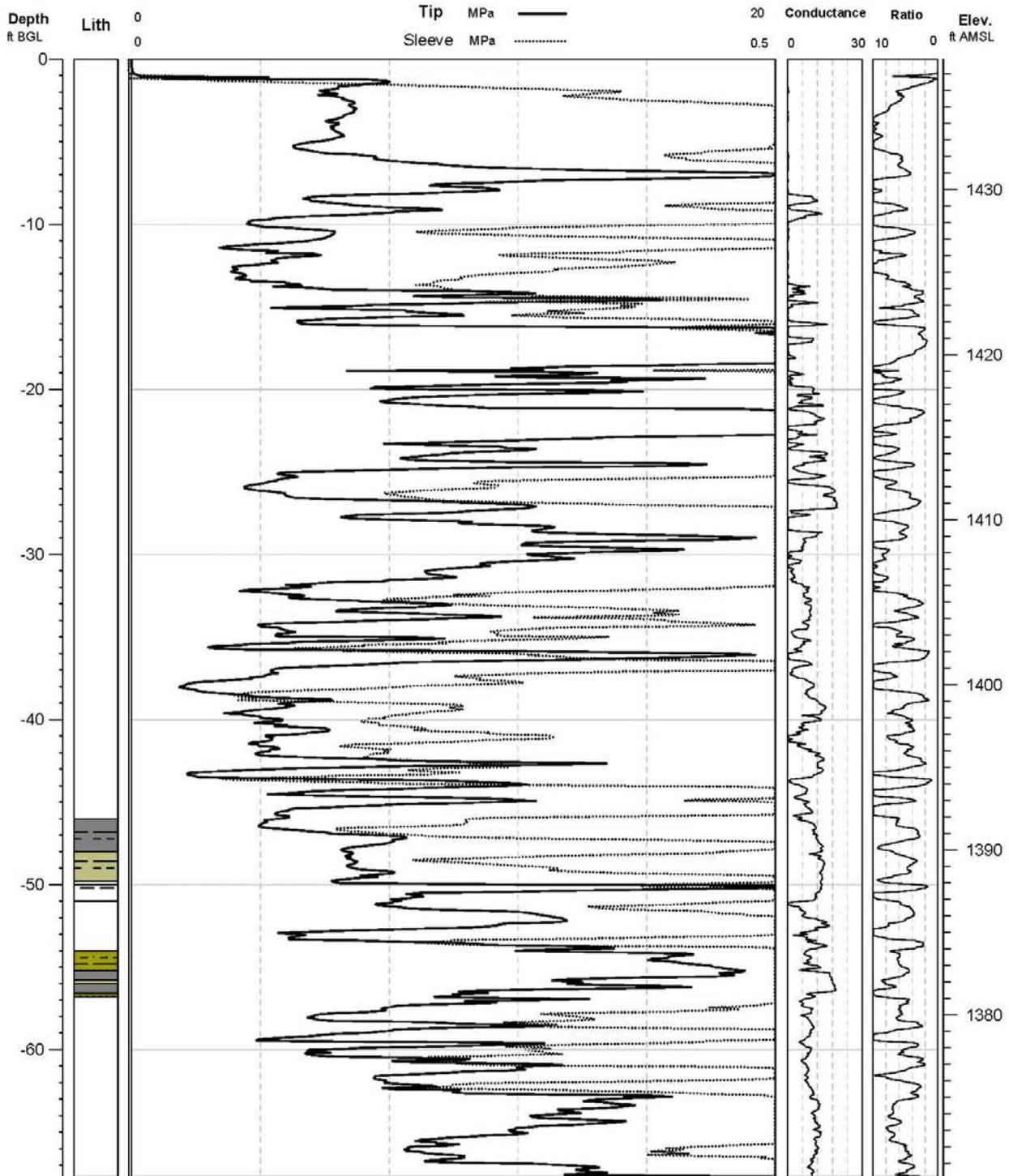
Project: Ramona, KS

Elevation: 1437.90 ft

Geologist: Bob Sedivy

Depth: 67.716 ft BGL

Log Date: 12/17/2013



MW-09

WATER WELL RECORD

Form WWC-5

Division of Water Resources App. No.

| | | | | | |
|---|--|---|----------------------|---------------------|--|
| 1 LOCATION OF WATER WELL: County: Marion | Fraction SW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 5 | Section Number 1 | Township No. 17 S | Range Number R 3 | <input checked="" type="checkbox"/> F <input type="checkbox"/> W |
| Street Rural Address of Well Location: if unknown, distance & direction from nearest town or intersection: If at owner's address, check here <input type="checkbox"/> 110 F Street Ramona, KS 67475 | | Global Positioning System (GPS) information. Latitude: .38,59615 (in decimal degrees) Longitude: 97.05895 (in decimal degrees) Elevation: Datum: <input type="checkbox"/> WGS 84 <input type="checkbox"/> NAD 83 <input type="checkbox"/> NAD 27 | | | |
| 2 WATER WELL OWNER: USDA/CCC Farm Service Agency RR #: Street Address, Box #: 1400 Independence Ave., SW City, State, ZIP Code: Washington, DC 20250-0513 | | Collection Method: <input checked="" type="checkbox"/> GPS unit (Make/Model: iPhone 4) <input type="checkbox"/> Digital Map/Photo <input type="checkbox"/> Topographic Map <input type="checkbox"/> Land Survey Est. Accuracy: <input type="checkbox"/> < 3 m <input checked="" type="checkbox"/> 3-5 m <input type="checkbox"/> 5-15 m <input type="checkbox"/> > 15 m | | | |

| | |
|---|--|
| 3 LOCATE WELL WITH AN "X" IN SECTION BOX: N W SW SE S 1 mile | 4 DEPTH OF COMPLETED WELL: 55 ft. Depth(s) Groundwater Encountered (1) ft. (2) ft. (3) ft. WELL'S STATIC WATER LEVEL: 54.23 ft. below land surface measured on mo/day/yr: 12/19/13 Pump test data: Well water was ft. after hours pumping gpm EST. YIELD: gpm. Well water was ft. after hours pumping gpm Bore Hole Diameter in. to ft. and in. to ft. WELL WATER TO BE USED AS: <input type="checkbox"/> Public water supply <input type="checkbox"/> Geothermal <input type="checkbox"/> Injection well <input type="checkbox"/> Domestic <input type="checkbox"/> Feedlot <input type="checkbox"/> Oil field water supply <input type="checkbox"/> Dewatering <input type="checkbox"/> Other (Specify below) <input type="checkbox"/> Irrigation <input type="checkbox"/> Industrial <input type="checkbox"/> Domestic-lawn & garden <input checked="" type="checkbox"/> Monitoring well Was a chemical/bacteriological sample submitted to Department? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, mo/day/yr sample was submitted: Water well disinfected? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
|---|--|

5 TYPE OF CASING USED: Steel PVC Other
CASING JOINTS: Glued Clamped Welded Threaded
 Casing diameter 1.0 in. to 45.0 ft. Diameter in. to ft. Diameter in. to ft.
 Casing height above land surface: -6 in. Weight lbs./ft. Wall thickness or gauge No.
TYPE OF SCREEN OR PERFORATION MATERIAL:
 Steel Stainless Steel PVC Other (Specify)
 Brass Galvanized Steel None used (open hole)
SCREEN OR PERFORATION OPENINGS ARE:
 Continuous slot Mill slot Gauze wrapped Forch cut Drilled holes None (open hole)
 Louvered shutter Key punched Wire wrapped Saw cut Other (specify)
SCREEN-PERFORATED INTERVALS: From 45.0 ft. to 55.0 ft. From ft. to ft.
GRAVEL PACK INTERVALS: From 42.0 ft. to 55.0 ft. From ft. to ft.

6 GROUT MATERIAL: Neat cement Cement grout Bentonite Other
 Grout Intervals: From 2.0 ft. to 42 ft. From ft. to ft. From ft. to ft.
 What is the nearest source of possible contamination:
 Septic tank Lateral lines Pit privy Livestock pens Insecticide storage Other (specify below)
 Sewer lines Cesspool Sewage lagoon Fuel storage Abandoned water well
 Watertight sewer lines Seepage pit Feedyard Fertilizer storage Oil well/gas well
 Direction from well 200' East Distance from well

| FROM | TO | LITHOLOGIC LOG | FROM | TO | LITHO. LOG (cont.) or PLUGGING INTERVALS |
|------|----|----------------|------|----|--|
| 0 | 40 | Till | | | |
| 40 | 45 | Sand & Clay | | | |
| | | | | | |
| | | | | | |

7 CONTRACTOR'S OR LANDOWNER'S CERTIFICATION: This water well was constructed, reconstructed, or plugged under my jurisdiction and was completed on (mo/day/year) 12/18/2013 and this record is true to the best of my knowledge and belief. Kansas Water Well Contractor's License No. 680. This Water Well Record was completed on (mo/day/year) 2/15/14 under the business name of Delta Environmental by signature *[Signature]*
INSTRUCTIONS: Use typewriter or ball point pen. PLEASE PRINT NAME and PRINT clearly. Please fill in blanks and check the correct answers. Send one copy to Kansas Department of Health and Environment, Bureau of Water Geology, Section 1000 SW Jackson St., Suite 420, Topeka, Kansas 66612-1307. Telephone 785-296-1224. Send one copy to WATER WELL OWNER and retain one for our records. Include fee of \$5.00 for each constructed well. Visit us at <http://www.kdheks.gov/waterwell/index.html>

Argonne National Laboratory

Well ID: MW10

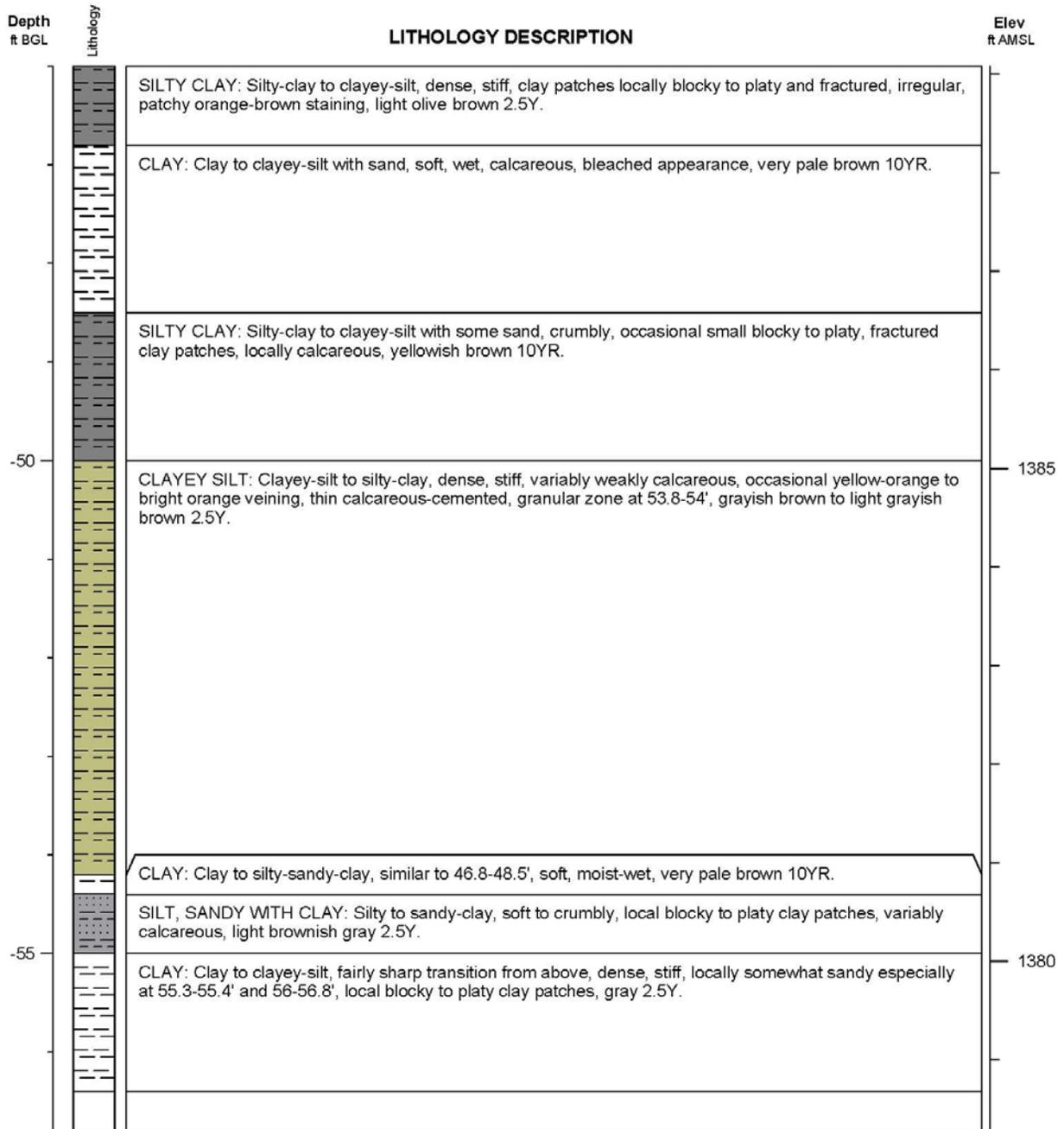
Project: Ramona, KS

Elevation: 1435.08 ft

Log Date: 12/17/2013

Geologist: Bob Sedivy

Depth: 56.8 ft BGL



Argonne National Laboratory

Boring ID: MW10

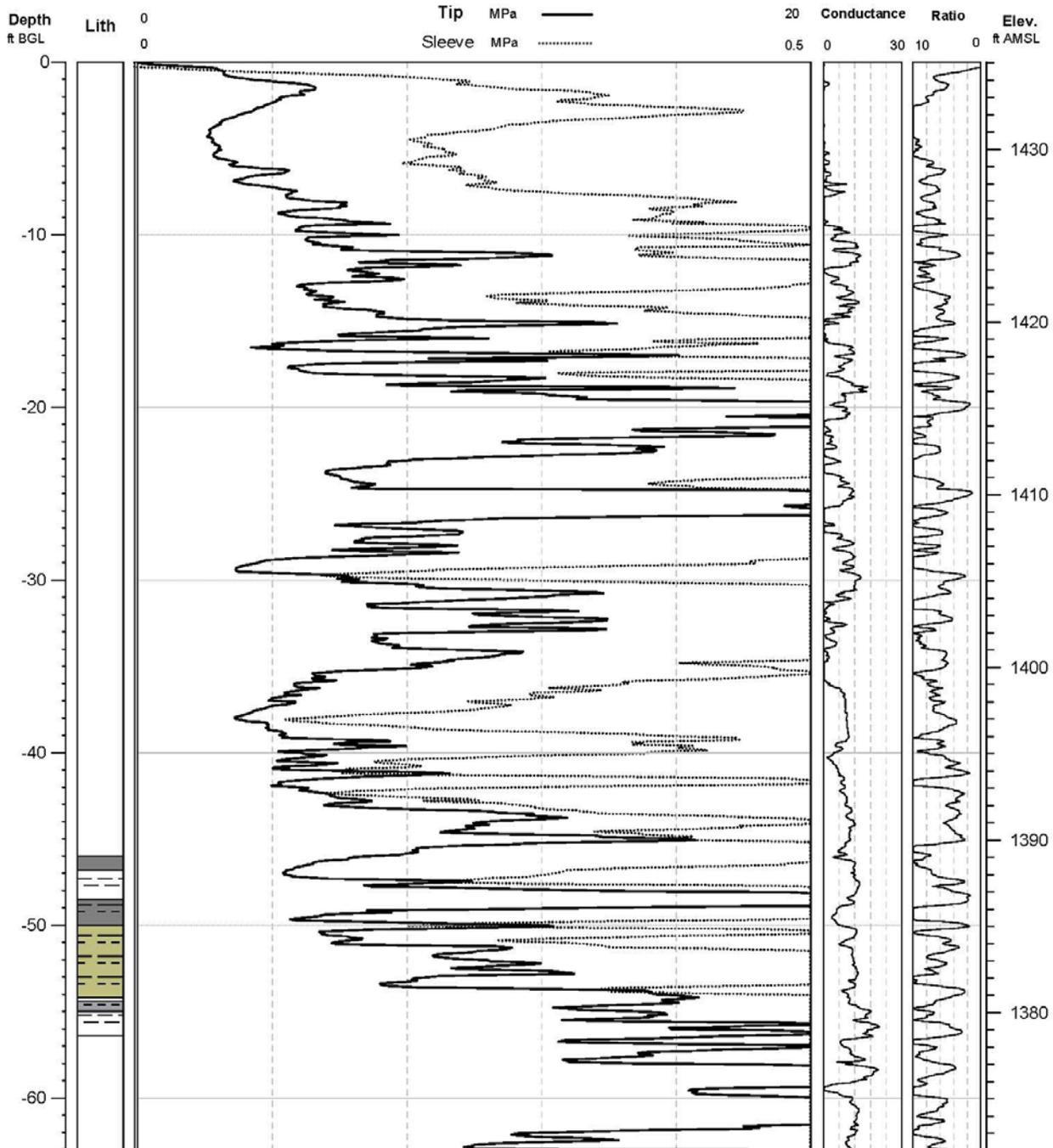
Project: Ramona, KS

Elevation: 1435.08 ft

Geologist: Bob Sedivy

Depth: 63.057 ft BGL

Log Date: 12/17/2013



Appendix D:

**Results from the AGEM Laboratory for Dual Analyses of Samples
Collected in 2013-2014 and for Quality Control Samples**

TABLE D.1 Analytical results from the AGEM Laboratory for quality control samples collected to monitor sample collection and handling activities in 2013-2014.

| Location | Sample | Sample Date | Sample Type ^a | Depth (ft BGL) | Concentration (µg/L) | | |
|----------|----------------------|-------------|--------------------------|----------------|----------------------|--------------------|--------------------|
| | | | | | Carbon Tetrachloride | Chloroform | Methylene Chloride |
| MW05 | RAMW5-W-36360 | 10/9/2013 | N | 45-55 | 3.2 | 1.3 | ND ^b |
| MW05 | RAMW5-W-36360DUP | 10/9/2013 | DUP-L | 45-55 | 3.1 | 1.3 | ND |
| MW10 | RAMW10-W-36375 | 1/23/2014 | N | 45-55 | ND | ND | ND |
| MW10 | RAMW10-W-36375DUP | 1/23/2014 | DUP-L | 45-55 | ND | ND | ND |
| SVOBODA | RASVOBODA-W-36368 | 10/10/2013 | N | – | 1.4 | 0.4 J ^c | ND |
| SVOBODA | RASVOBODA-W-36368DUP | 10/10/2013 | DUP-L | – | 1.4 | 0.5 J | ND |
| QC | RAQCIR-W-36364 | 10/9/2013 | RI | – | ND | ND | ND |
| QC | RAQCTB-W-36369 | 10/9/2013 | TB | – | ND | ND | ND |
| QC | RAQCTB-W-36376 | 1/23/2014 | TB | – | ND | ND | ND |

^a Sample type codes: DUP-L, laboratory duplicate; N, primary sample; RI, rinsate; TR, trip blank.

^b ND, compound analyzed for but not detected at a level greater than or equal to the method detection limit (< 1 µg/L).

^c J, compound identified with an estimated concentration between the instrument detection limit and the method detection limit.

TABLE D.2 Results for verification organic analyses during groundwater monitoring in 2013-2014.

| Location | Sample | Sample Date | Analytical Laboratory | Concentration (µg/L) | | | Method Detection Limit |
|----------|----------------------|-------------|-----------------------|----------------------|--------------------|--------------------|------------------------|
| | | | | Carbon Tetrachloride | Chloroform | Methylene Chloride | |
| MW08 | RAMW8-W-36363 | 10/9/2013 | AGEM | 1.5 | 0.4 J ^a | ND ^b | 1 |
| MW08 | RAMW8-W-36363VER | 10/9/2013 | TestAmerica | 1.3 | 0.4 J | ND | 0.5 |
| MW09 | RAMW9-W-36374 | 1/23/2014 | AGEM | 0.7 J | ND | ND | 1 |
| MW09 | RAMW9-W-36374VER | 1/23/2014 | TestAmerica | 0.6 | 0.3 J | ND | 0.5 |
| MW10 | RAMW10-W-36375 | 1/23/2014 | AGEM | ND | ND | ND | 1 |
| MW10 | RAMW10-W-36375VER | 1/23/2014 | TestAmerica | ND | ND | ND | 0.5 |
| SVOBODA | RASVOBODA-W-36368 | 10/10/2013 | AGEM | 1.4 | 0.4 J | ND | 1 |
| SVOBODA | RASVOBODA-W-36368VER | 10/10/2013 | TestAmerica | 1.4 | 0.6 | ND | 0.5 |
| QC | RAQCTB-W-36369 | 10/9/2013 | AGEM | ND | ND | ND | 1 |
| QC | RAQCTB-W-36369VER | 10/9/2013 | TestAmerica | ND | ND | ND | 0.5 |
| QC | RAQCTB-W-36376 | 1/23/2014 | AGEM | ND | ND | ND | 1 |
| QC | RAQCTB-W-36376VER | 1/23/2014 | TestAmerica | ND | 0.3 J | ND | 0.5 |

^a J, compound identified with an estimated concentration between the instrument detection limit and the method detection limit.

^b ND, compound analyzed for but not detected at a level greater than or equal to the indicated method detection limit.

Supplement 1:

Analytical Data for Investigation-Derived Waste

November 06, 2013

Mr. Travis Kamler
TCW Construction Inc
141 M Street
Lincoln, NE 68508

RE: Project: KS Waste Water
Pace Project No.: 60156193

Dear Mr. Kamler:

Enclosed are the analytical results for sample(s) received by the laboratory on October 25, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI 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,



Trudy Gipson

trudy.gipson@pacelabs.com
Project Manager

Enclosures

cc: Mr. David Surgnier



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: KS Waste Water

Pace Project No.: 60156193

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219

WY STR Certification #: 2456.01

Arkansas Certification #: 13-012-0

Illinois Certification #: 003097

Iowa Certification #: 118

Kansas/NELAP Certification #: E-10116

Louisiana Certification #: 03055

Nevada Certification #: KS000212008A

Oklahoma Certification #: 9205/9935

Texas Certification #: T104704407-13-4

Utah Certification #: KS000212013-3

Illinois Certification #: 003097

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: KS Waste Water

Pace Project No.: 60156193

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|-------------|-----------------|--------|----------------|----------------|
| 60156193001 | AGPURGE-W-10241 | Water | 10/24/13 08:00 | 10/25/13 08:15 |
| 60156193002 | BAPURGE-W-10242 | Water | 10/24/13 08:10 | 10/25/13 08:15 |
| 60156193003 | CNPURGE-W-10243 | Water | 10/24/13 08:20 | 10/25/13 08:15 |
| 60156193004 | EVPURGE-W-10244 | Water | 10/24/13 08:30 | 10/25/13 08:15 |
| 60156193005 | MRPURGE-W-10245 | Water | 10/24/13 08:40 | 10/25/13 08:15 |
| 60156193006 | RAPURGE-W-10246 | Water | 10/24/13 08:50 | 10/25/13 08:15 |

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: KS Waste Water

Pace Project No.: 60156193

| Lab ID | Sample ID | Method | Analysts | Analytes Reported |
|-------------|-----------------|----------------|----------|-------------------|
| 60156193001 | AGPURGE-W-10241 | EPA 504.1 | JDH | 1 |
| | | EPA 5030B/8260 | PRG | 69 |
| | | EPA 353.2 | AJM | 1 |
| 60156193002 | BAPURGE-W-10242 | EPA 504.1 | JDH | 1 |
| | | EPA 5030B/8260 | PRG | 69 |
| | | EPA 353.2 | AJM | 1 |
| 60156193003 | CNPURGE-W-10243 | EPA 504.1 | JDH | 1 |
| | | EPA 5030B/8260 | PRG | 69 |
| | | EPA 353.2 | AJM | 1 |
| 60156193004 | EVPURGE-W-10244 | EPA 504.1 | JDH | 1 |
| | | EPA 5030B/8260 | PRG | 69 |
| | | EPA 353.2 | AJM | 1 |
| 60156193005 | MRPURGE-W-10245 | EPA 504.1 | JDH | 1 |
| | | EPA 5030B/8260 | PRG | 69 |
| | | EPA 353.2 | AJM | 1 |
| 60156193006 | RAPURGE-W-10246 | EPA 504.1 | JDH | 1 |
| | | EPA 5030B/8260 | PRG | 69 |
| | | EPA 353.2 | AJM | 1 |

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: KS Waste Water

Pace Project No.: 60156193

| Sample: AGPURGE-W-10241 | Lab ID: 60156193001 | Collected: 10/24/13 08:00 | Received: 10/25/13 08:15 | Matrix: Water | | | | |
|--------------------------------|----------------------------|--|--------------------------|---------------|----------------|----------------|------------|------|
| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
| 504 GCS EDB and DBCP | | Analytical Method: EPA 504.1 Preparation Method: EPA 504.1 | | | | | | |
| 1,2-Dibromoethane (EDB) | ND ug/L | | 0.031 | 1 | 11/05/13 17:30 | 11/05/13 22:12 | 106-93-4 | |
| 8260 MSV | | Analytical Method: EPA 5030B/8260 | | | | | | |
| Acetone | ND ug/L | | 10.0 | 1 | | 10/30/13 14:33 | 67-64-1 | |
| Benzene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 71-43-2 | |
| Bromobenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 108-86-1 | |
| Bromochloromethane | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 74-97-5 | |
| Bromodichloromethane | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 75-27-4 | |
| Bromoform | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 75-25-2 | |
| Bromomethane | ND ug/L | | 5.0 | 1 | | 10/30/13 14:33 | 74-83-9 | |
| 2-Butanone (MEK) | ND ug/L | | 10.0 | 1 | | 10/30/13 14:33 | 78-93-3 | |
| n-Butylbenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 104-51-8 | |
| sec-Butylbenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 135-98-8 | |
| tert-Butylbenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 98-06-6 | |
| Carbon disulfide | ND ug/L | | 5.0 | 1 | | 10/30/13 14:33 | 75-15-0 | |
| Carbon tetrachloride | 2.1 ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 56-23-5 | |
| Chlorobenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 108-90-7 | |
| Chloroethane | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 75-00-3 | |
| Chloroform | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 67-66-3 | |
| Chloromethane | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 74-87-3 | |
| 2-Chlorotoluene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 95-49-8 | |
| 4-Chlorotoluene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND ug/L | | 2.5 | 1 | | 10/30/13 14:33 | 96-12-8 | |
| Dibromochloromethane | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 106-93-4 | |
| Dibromomethane | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 106-46-7 | |
| Dichlorodifluoromethane | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 75-71-8 | |
| 1,1-Dichloroethane | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 75-34-3 | |
| 1,2-Dichloroethane | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 107-06-2 | |
| 1,2-Dichloroethene (Total) | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 540-59-0 | |
| 1,1-Dichloroethene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 156-60-5 | |
| 1,2-Dichloropropane | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 78-87-5 | |
| 1,3-Dichloropropane | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 142-28-9 | |
| 2,2-Dichloropropane | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 594-20-7 | |
| 1,1-Dichloropropene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 10061-02-6 | |
| Ethylbenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 87-68-3 | |
| 2-Hexanone | ND ug/L | | 10.0 | 1 | | 10/30/13 14:33 | 591-78-6 | |
| Isopropylbenzene (Cumene) | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 98-82-8 | |
| p-Isopropyltoluene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 99-87-6 | |

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: KS Waste Water

Pace Project No.: 60156193

| Sample: AGPURGE-W-10241 | | Lab ID: 60156193001 | Collected: 10/24/13 08:00 | Received: 10/25/13 08:15 | Matrix: Water | | | |
|---------------------------------------|------------------|-----------------------------------|---------------------------|--------------------------|---------------|----------------|------------|------|
| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
| 8260 MSV | | Analytical Method: EPA 5030B/8260 | | | | | | |
| Methylene chloride | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND ug/L | | 10.0 | 1 | | 10/30/13 14:33 | 108-10-1 | |
| Methyl-tert-butyl ether | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 1634-04-4 | |
| Naphthalene | ND ug/L | | 10.0 | 1 | | 10/30/13 14:33 | 91-20-3 | |
| n-Propylbenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 103-65-1 | |
| Styrene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 79-34-5 | |
| Tetrachloroethene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 127-18-4 | |
| Toluene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 79-00-5 | |
| Trichloroethene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 79-01-6 | |
| Trichlorofluoromethane | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND ug/L | | 2.5 | 1 | | 10/30/13 14:33 | 96-18-4 | |
| 1,2,4-Trimethylbenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 108-67-8 | |
| Vinyl chloride | ND ug/L | | 1.0 | 1 | | 10/30/13 14:33 | 75-01-4 | |
| Xylene (Total) | ND ug/L | | 3.0 | 1 | | 10/30/13 14:33 | 1330-20-7 | |
| Surrogates | | | | | | | | |
| 4-Bromofluorobenzene (S) | 100 % | | 80-120 | 1 | | 10/30/13 14:33 | 460-00-4 | |
| 1,2-Dichloroethane-d4 (S) | 102 % | | 80-120 | 1 | | 10/30/13 14:33 | 17060-07-0 | |
| Toluene-d8 (S) | 100 % | | 80-120 | 1 | | 10/30/13 14:33 | 2037-26-5 | |
| Preservation pH | 7.0 | | 0.10 | 1 | | 10/30/13 14:33 | | |
| 353.2 Nitrogen, NO2/NO3 unpres | | Analytical Method: EPA 353.2 | | | | | | |
| Nitrogen, Nitrate | 12.5 mg/L | | 1.0 | 10 | | 10/25/13 15:10 | | |

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: KS Waste Water

Pace Project No.: 60156193

| Sample: BAPURGE-W-10242 | Lab ID: 60156193002 | Collected: 10/24/13 08:10 | Received: 10/25/13 08:15 | Matrix: Water | | | | |
|-----------------------------|---------------------|--|--------------------------|---------------|----------------|----------------|------------|------|
| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
| 504 GCS EDB and DBCP | | Analytical Method: EPA 504.1 Preparation Method: EPA 504.1 | | | | | | |
| 1,2-Dibromoethane (EDB) | ND ug/L | | 0.030 | 1 | 11/05/13 17:30 | 11/05/13 22:24 | 106-93-4 | |
| 8260 MSV | | Analytical Method: EPA 5030B/8260 | | | | | | |
| Acetone | ND ug/L | | 10.0 | 1 | | 10/30/13 14:47 | 67-64-1 | |
| Benzene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 71-43-2 | |
| Bromobenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 108-86-1 | |
| Bromochloromethane | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 74-97-5 | |
| Bromodichloromethane | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 75-27-4 | |
| Bromoform | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 75-25-2 | |
| Bromomethane | ND ug/L | | 5.0 | 1 | | 10/30/13 14:47 | 74-83-9 | |
| 2-Butanone (MEK) | ND ug/L | | 10.0 | 1 | | 10/30/13 14:47 | 78-93-3 | |
| n-Butylbenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 104-51-8 | |
| sec-Butylbenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 135-98-8 | |
| tert-Butylbenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 98-06-6 | |
| Carbon disulfide | ND ug/L | | 5.0 | 1 | | 10/30/13 14:47 | 75-15-0 | |
| Carbon tetrachloride | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 56-23-5 | |
| Chlorobenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 108-90-7 | |
| Chloroethane | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 75-00-3 | |
| Chloroform | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 67-66-3 | |
| Chloromethane | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 74-87-3 | |
| 2-Chlorotoluene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 95-49-8 | |
| 4-Chlorotoluene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND ug/L | | 2.5 | 1 | | 10/30/13 14:47 | 96-12-8 | |
| Dibromochloromethane | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 106-93-4 | |
| Dibromomethane | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 106-46-7 | |
| Dichlorodifluoromethane | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 75-71-8 | |
| 1,1-Dichloroethane | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 75-34-3 | |
| 1,2-Dichloroethane | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 107-06-2 | |
| 1,2-Dichloroethene (Total) | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 540-59-0 | |
| 1,1-Dichloroethene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 156-60-5 | |
| 1,2-Dichloropropane | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 78-87-5 | |
| 1,3-Dichloropropane | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 142-28-9 | |
| 2,2-Dichloropropane | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 594-20-7 | |
| 1,1-Dichloropropene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 10061-02-6 | |
| Ethylbenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 87-68-3 | |
| 2-Hexanone | ND ug/L | | 10.0 | 1 | | 10/30/13 14:47 | 591-78-6 | |
| Isopropylbenzene (Cumene) | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 98-82-8 | |
| p-Isopropyltoluene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 99-87-6 | |

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: KS Waste Water

Pace Project No.: 60156193

| Sample: BAPURGE-W-10242 | Lab ID: 60156193002 | Collected: 10/24/13 08:10 | Received: 10/25/13 08:15 | Matrix: Water | | | | |
|---------------------------------------|---------------------|-----------------------------------|--------------------------|---------------|----------|----------------|------------|------|
| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
| 8260 MSV | | Analytical Method: EPA 5030B/8260 | | | | | | |
| Methylene chloride | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND ug/L | | 10.0 | 1 | | 10/30/13 14:47 | 108-10-1 | |
| Methyl-tert-butyl ether | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 1634-04-4 | |
| Naphthalene | ND ug/L | | 10.0 | 1 | | 10/30/13 14:47 | 91-20-3 | |
| n-Propylbenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 103-65-1 | |
| Styrene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 79-34-5 | |
| Tetrachloroethene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 127-18-4 | |
| Toluene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 79-00-5 | |
| Trichloroethene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 79-01-6 | |
| Trichlorofluoromethane | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND ug/L | | 2.5 | 1 | | 10/30/13 14:47 | 96-18-4 | |
| 1,2,4-Trimethylbenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 108-67-8 | |
| Vinyl chloride | ND ug/L | | 1.0 | 1 | | 10/30/13 14:47 | 75-01-4 | |
| Xylene (Total) | ND ug/L | | 3.0 | 1 | | 10/30/13 14:47 | 1330-20-7 | |
| Surrogates | | | | | | | | |
| 4-Bromofluorobenzene (S) | 101 % | | 80-120 | 1 | | 10/30/13 14:47 | 460-00-4 | |
| 1,2-Dichloroethane-d4 (S) | 99 % | | 80-120 | 1 | | 10/30/13 14:47 | 17060-07-0 | |
| Toluene-d8 (S) | 99 % | | 80-120 | 1 | | 10/30/13 14:47 | 2037-26-5 | |
| Preservation pH | 7.0 | | 0.10 | 1 | | 10/30/13 14:47 | | |
| 353.2 Nitrogen, NO2/NO3 unpres | | Analytical Method: EPA 353.2 | | | | | | |
| Nitrogen, Nitrate | 7.0 mg/L | | 0.50 | 5 | | 10/25/13 15:36 | | |

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ANALYTICAL RESULTS

Project: KS Waste Water

Pace Project No.: 60156193

| Sample: CNPURGE-W-10243 | Lab ID: 60156193003 | Collected: 10/24/13 08:20 | Received: 10/25/13 08:15 | Matrix: Water | | | | |
|-----------------------------|---------------------|--|--------------------------|---------------|----------------|----------------|------------|------|
| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
| 504 GCS EDB and DBCP | | Analytical Method: EPA 504.1 Preparation Method: EPA 504.1 | | | | | | |
| 1,2-Dibromoethane (EDB) | ND ug/L | | 0.030 | 1 | 11/05/13 17:30 | 11/05/13 22:35 | 106-93-4 | |
| 8260 MSV | | Analytical Method: EPA 5030B/8260 | | | | | | |
| Acetone | ND ug/L | | 10.0 | 1 | | 10/30/13 15:02 | 67-64-1 | |
| Benzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 71-43-2 | |
| Bromobenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 108-86-1 | |
| Bromochloromethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 74-97-5 | |
| Bromodichloromethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 75-27-4 | |
| Bromoform | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 75-25-2 | |
| Bromomethane | ND ug/L | | 5.0 | 1 | | 10/30/13 15:02 | 74-83-9 | |
| 2-Butanone (MEK) | ND ug/L | | 10.0 | 1 | | 10/30/13 15:02 | 78-93-3 | |
| n-Butylbenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 104-51-8 | |
| sec-Butylbenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 135-98-8 | |
| tert-Butylbenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 98-06-6 | |
| Carbon disulfide | ND ug/L | | 5.0 | 1 | | 10/30/13 15:02 | 75-15-0 | |
| Carbon tetrachloride | 2.1 ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 56-23-5 | |
| Chlorobenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 108-90-7 | |
| Chloroethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 75-00-3 | |
| Chloroform | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 67-66-3 | |
| Chloromethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 74-87-3 | |
| 2-Chlorotoluene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 95-49-8 | |
| 4-Chlorotoluene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND ug/L | | 2.5 | 1 | | 10/30/13 15:02 | 96-12-8 | |
| Dibromochloromethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 106-93-4 | |
| Dibromomethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 106-46-7 | |
| Dichlorodifluoromethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 75-71-8 | |
| 1,1-Dichloroethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 75-34-3 | |
| 1,2-Dichloroethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 107-06-2 | |
| 1,2-Dichloroethene (Total) | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 540-59-0 | |
| 1,1-Dichloroethene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 156-60-5 | |
| 1,2-Dichloropropane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 78-87-5 | |
| 1,3-Dichloropropane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 142-28-9 | |
| 2,2-Dichloropropane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 594-20-7 | |
| 1,1-Dichloropropene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 10061-02-6 | |
| Ethylbenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 87-68-3 | |
| 2-Hexanone | ND ug/L | | 10.0 | 1 | | 10/30/13 15:02 | 591-78-6 | |
| Isopropylbenzene (Cumene) | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 98-82-8 | |
| p-Isopropyltoluene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 99-87-6 | |

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ANALYTICAL RESULTS

Project: KS Waste Water

Pace Project No.: 60156193

| Sample: CNPURGE-W-10243 | Lab ID: 60156193003 | Collected: 10/24/13 08:20 | Received: 10/25/13 08:15 | Matrix: Water | | | | |
|---------------------------------------|---------------------|-----------------------------------|--------------------------|---------------|----------|----------------|------------|------|
| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
| 8260 MSV | | Analytical Method: EPA 5030B/8260 | | | | | | |
| Methylene chloride | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND ug/L | | 10.0 | 1 | | 10/30/13 15:02 | 108-10-1 | |
| Methyl-tert-butyl ether | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 1634-04-4 | |
| Naphthalene | ND ug/L | | 10.0 | 1 | | 10/30/13 15:02 | 91-20-3 | |
| n-Propylbenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 103-65-1 | |
| Styrene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 79-34-5 | |
| Tetrachloroethene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 127-18-4 | |
| Toluene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 79-00-5 | |
| Trichloroethene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 79-01-6 | |
| Trichlorofluoromethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND ug/L | | 2.5 | 1 | | 10/30/13 15:02 | 96-18-4 | |
| 1,2,4-Trimethylbenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 108-67-8 | |
| Vinyl chloride | ND ug/L | | 1.0 | 1 | | 10/30/13 15:02 | 75-01-4 | |
| Xylene (Total) | ND ug/L | | 3.0 | 1 | | 10/30/13 15:02 | 1330-20-7 | |
| Surrogates | | | | | | | | |
| 4-Bromofluorobenzene (S) | 104 % | | 80-120 | 1 | | 10/30/13 15:02 | 460-00-4 | |
| 1,2-Dichloroethane-d4 (S) | 101 % | | 80-120 | 1 | | 10/30/13 15:02 | 17060-07-0 | |
| Toluene-d8 (S) | 99 % | | 80-120 | 1 | | 10/30/13 15:02 | 2037-26-5 | |
| Preservation pH | 7.0 | | 0.10 | 1 | | 10/30/13 15:02 | | |
| 353.2 Nitrogen, NO2/NO3 unpres | | Analytical Method: EPA 353.2 | | | | | | |
| Nitrogen, Nitrate | 3.8 mg/L | | 0.10 | 1 | | 10/25/13 15:36 | | |

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ANALYTICAL RESULTS

Project: KS Waste Water

Pace Project No.: 60156193

| Sample: EVPURGE-W-10244 | Lab ID: 60156193004 | Collected: 10/24/13 08:30 | Received: 10/25/13 08:15 | Matrix: Water | | | | |
|--------------------------------|----------------------------|--|--------------------------|---------------|----------------|----------------|------------|------|
| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
| 504 GCS EDB and DBCP | | Analytical Method: EPA 504.1 Preparation Method: EPA 504.1 | | | | | | |
| 1,2-Dibromoethane (EDB) | ND ug/L | | 0.030 | 1 | 11/05/13 17:30 | 11/05/13 22:47 | 106-93-4 | |
| 8260 MSV | | Analytical Method: EPA 5030B/8260 | | | | | | |
| Acetone | ND ug/L | | 10.0 | 1 | | 10/30/13 15:17 | 67-64-1 | |
| Benzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 71-43-2 | |
| Bromobenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 108-86-1 | |
| Bromochloromethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 74-97-5 | |
| Bromodichloromethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 75-27-4 | |
| Bromoform | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 75-25-2 | |
| Bromomethane | ND ug/L | | 5.0 | 1 | | 10/30/13 15:17 | 74-83-9 | |
| 2-Butanone (MEK) | ND ug/L | | 10.0 | 1 | | 10/30/13 15:17 | 78-93-3 | |
| n-Butylbenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 104-51-8 | |
| sec-Butylbenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 135-98-8 | |
| tert-Butylbenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 98-06-6 | |
| Carbon disulfide | ND ug/L | | 5.0 | 1 | | 10/30/13 15:17 | 75-15-0 | |
| Carbon tetrachloride | 2.1 ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 56-23-5 | |
| Chlorobenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 108-90-7 | |
| Chloroethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 75-00-3 | |
| Chloroform | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 67-66-3 | |
| Chloromethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 74-87-3 | |
| 2-Chlorotoluene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 95-49-8 | |
| 4-Chlorotoluene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND ug/L | | 2.5 | 1 | | 10/30/13 15:17 | 96-12-8 | |
| Dibromochloromethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 106-93-4 | |
| Dibromomethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 106-46-7 | |
| Dichlorodifluoromethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 75-71-8 | |
| 1,1-Dichloroethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 75-34-3 | |
| 1,2-Dichloroethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 107-06-2 | |
| 1,2-Dichloroethene (Total) | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 540-59-0 | |
| 1,1-Dichloroethene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 156-60-5 | |
| 1,2-Dichloropropane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 78-87-5 | |
| 1,3-Dichloropropane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 142-28-9 | |
| 2,2-Dichloropropane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 594-20-7 | |
| 1,1-Dichloropropene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 10061-02-6 | |
| Ethylbenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 87-68-3 | |
| 2-Hexanone | ND ug/L | | 10.0 | 1 | | 10/30/13 15:17 | 591-78-6 | |
| Isopropylbenzene (Cumene) | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 98-82-8 | |
| p-Isopropyltoluene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 99-87-6 | |

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: KS Waste Water

Pace Project No.: 60156193

| Sample: EVPURGE-W-10244 | Lab ID: 60156193004 | Collected: 10/24/13 08:30 | Received: 10/25/13 08:15 | Matrix: Water | | | | |
|---------------------------------------|----------------------------|-----------------------------------|--------------------------|---------------|----------|----------------|------------|------|
| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
| 8260 MSV | | Analytical Method: EPA 5030B/8260 | | | | | | |
| Methylene chloride | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND ug/L | | 10.0 | 1 | | 10/30/13 15:17 | 108-10-1 | |
| Methyl-tert-butyl ether | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 1634-04-4 | |
| Naphthalene | ND ug/L | | 10.0 | 1 | | 10/30/13 15:17 | 91-20-3 | |
| n-Propylbenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 103-65-1 | |
| Styrene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 79-34-5 | |
| Tetrachloroethene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 127-18-4 | |
| Toluene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 79-00-5 | |
| Trichloroethene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 79-01-6 | |
| Trichlorofluoromethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND ug/L | | 2.5 | 1 | | 10/30/13 15:17 | 96-18-4 | |
| 1,2,4-Trimethylbenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 108-67-8 | |
| Vinyl chloride | ND ug/L | | 1.0 | 1 | | 10/30/13 15:17 | 75-01-4 | |
| Xylene (Total) | ND ug/L | | 3.0 | 1 | | 10/30/13 15:17 | 1330-20-7 | |
| Surrogates | | | | | | | | |
| 4-Bromofluorobenzene (S) | 102 % | | 80-120 | 1 | | 10/30/13 15:17 | 460-00-4 | |
| 1,2-Dichloroethane-d4 (S) | 99 % | | 80-120 | 1 | | 10/30/13 15:17 | 17060-07-0 | |
| Toluene-d8 (S) | 99 % | | 80-120 | 1 | | 10/30/13 15:17 | 2037-26-5 | |
| Preservation pH | 7.0 | | 0.10 | 1 | | 10/30/13 15:17 | | |
| 353.2 Nitrogen, NO2/NO3 unpres | | Analytical Method: EPA 353.2 | | | | | | |
| Nitrogen, Nitrate | 13.3 mg/L | | 1.0 | 10 | | 10/25/13 15:15 | | |

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ANALYTICAL RESULTS

Project: KS Waste Water

Pace Project No.: 60156193

| Sample: MRPURGE-W-10245 | Lab ID: 60156193005 | Collected: 10/24/13 08:40 | Received: 10/25/13 08:15 | Matrix: Water | | | | |
|-----------------------------|---------------------|--|--------------------------|---------------|----------------|----------------|------------|------|
| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
| 504 GCS EDB and DBCP | | Analytical Method: EPA 504.1 Preparation Method: EPA 504.1 | | | | | | |
| 1,2-Dibromoethane (EDB) | ND ug/L | | 0.030 | 1 | 11/05/13 17:30 | 11/05/13 22:58 | 106-93-4 | |
| 8260 MSV | | Analytical Method: EPA 5030B/8260 | | | | | | |
| Acetone | ND ug/L | | 10.0 | 1 | | 10/30/13 15:31 | 67-64-1 | |
| Benzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 71-43-2 | |
| Bromobenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 108-86-1 | |
| Bromochloromethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 74-97-5 | |
| Bromodichloromethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 75-27-4 | |
| Bromoform | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 75-25-2 | |
| Bromomethane | ND ug/L | | 5.0 | 1 | | 10/30/13 15:31 | 74-83-9 | |
| 2-Butanone (MEK) | ND ug/L | | 10.0 | 1 | | 10/30/13 15:31 | 78-93-3 | |
| n-Butylbenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 104-51-8 | |
| sec-Butylbenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 135-98-8 | |
| tert-Butylbenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 98-06-6 | |
| Carbon disulfide | ND ug/L | | 5.0 | 1 | | 10/30/13 15:31 | 75-15-0 | |
| Carbon tetrachloride | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 56-23-5 | |
| Chlorobenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 108-90-7 | |
| Chloroethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 75-00-3 | |
| Chloroform | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 67-66-3 | |
| Chloromethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 74-87-3 | |
| 2-Chlorotoluene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 95-49-8 | |
| 4-Chlorotoluene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND ug/L | | 2.5 | 1 | | 10/30/13 15:31 | 96-12-8 | |
| Dibromochloromethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 106-93-4 | |
| Dibromomethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 106-46-7 | |
| Dichlorodifluoromethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 75-71-8 | |
| 1,1-Dichloroethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 75-34-3 | |
| 1,2-Dichloroethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 107-06-2 | |
| 1,2-Dichloroethene (Total) | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 540-59-0 | |
| 1,1-Dichloroethene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 156-60-5 | |
| 1,2-Dichloropropane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 78-87-5 | |
| 1,3-Dichloropropane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 142-28-9 | |
| 2,2-Dichloropropane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 594-20-7 | |
| 1,1-Dichloropropene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 10061-02-6 | |
| Ethylbenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 87-68-3 | |
| 2-Hexanone | ND ug/L | | 10.0 | 1 | | 10/30/13 15:31 | 591-78-6 | |
| Isopropylbenzene (Cumene) | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 98-82-8 | |
| p-Isopropyltoluene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 99-87-6 | |

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ANALYTICAL RESULTS

Project: KS Waste Water

Pace Project No.: 60156193

| Sample: MRPURGE-W-10245 | Lab ID: 60156193005 | Collected: 10/24/13 08:40 | Received: 10/25/13 08:15 | Matrix: Water | | | | |
|---------------------------------------|----------------------------|-----------------------------------|--------------------------|---------------|----------|----------------|------------|------|
| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
| 8260 MSV | | Analytical Method: EPA 5030B/8260 | | | | | | |
| Methylene chloride | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND ug/L | | 10.0 | 1 | | 10/30/13 15:31 | 108-10-1 | |
| Methyl-tert-butyl ether | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 1634-04-4 | |
| Naphthalene | ND ug/L | | 10.0 | 1 | | 10/30/13 15:31 | 91-20-3 | |
| n-Propylbenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 103-65-1 | |
| Styrene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 79-34-5 | |
| Tetrachloroethene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 127-18-4 | |
| Toluene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 79-00-5 | |
| Trichloroethene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 79-01-6 | |
| Trichlorofluoromethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND ug/L | | 2.5 | 1 | | 10/30/13 15:31 | 96-18-4 | |
| 1,2,4-Trimethylbenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 108-67-8 | |
| Vinyl chloride | ND ug/L | | 1.0 | 1 | | 10/30/13 15:31 | 75-01-4 | |
| Xylene (Total) | ND ug/L | | 3.0 | 1 | | 10/30/13 15:31 | 1330-20-7 | |
| Surrogates | | | | | | | | |
| 4-Bromofluorobenzene (S) | 100 % | | 80-120 | 1 | | 10/30/13 15:31 | 460-00-4 | |
| 1,2-Dichloroethane-d4 (S) | 104 % | | 80-120 | 1 | | 10/30/13 15:31 | 17060-07-0 | |
| Toluene-d8 (S) | 99 % | | 80-120 | 1 | | 10/30/13 15:31 | 2037-26-5 | |
| Preservation pH | 7.0 | | 0.10 | 1 | | 10/30/13 15:31 | | |
| 353.2 Nitrogen, NO2/NO3 unpres | | Analytical Method: EPA 353.2 | | | | | | |
| Nitrogen, Nitrate | 4.7 mg/L | | 0.20 | 2 | | 10/25/13 15:37 | | |

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ANALYTICAL RESULTS

Project: KS Waste Water

Pace Project No.: 60156193

| Sample: RAPURGE-W-10246 | Lab ID: 60156193006 | Collected: 10/24/13 08:50 | Received: 10/25/13 08:15 | Matrix: Water | | | | |
|-----------------------------|---------------------|--|--------------------------|---------------|----------------|----------------|------------|------|
| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
| 504 GCS EDB and DBCP | | Analytical Method: EPA 504.1 Preparation Method: EPA 504.1 | | | | | | |
| 1,2-Dibromoethane (EDB) | ND ug/L | | 0.030 | 1 | 11/05/13 17:30 | 11/05/13 23:09 | 106-93-4 | |
| 8260 MSV | | Analytical Method: EPA 5030B/8260 | | | | | | |
| Acetone | ND ug/L | | 10.0 | 1 | | 10/30/13 15:45 | 67-64-1 | |
| Benzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 71-43-2 | |
| Bromobenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 108-86-1 | |
| Bromochloromethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 74-97-5 | |
| Bromodichloromethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 75-27-4 | |
| Bromoform | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 75-25-2 | |
| Bromomethane | ND ug/L | | 5.0 | 1 | | 10/30/13 15:45 | 74-83-9 | |
| 2-Butanone (MEK) | ND ug/L | | 10.0 | 1 | | 10/30/13 15:45 | 78-93-3 | |
| n-Butylbenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 104-51-8 | |
| sec-Butylbenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 135-98-8 | |
| tert-Butylbenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 98-06-6 | |
| Carbon disulfide | ND ug/L | | 5.0 | 1 | | 10/30/13 15:45 | 75-15-0 | |
| Carbon tetrachloride | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 56-23-5 | |
| Chlorobenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 108-90-7 | |
| Chloroethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 75-00-3 | |
| Chloroform | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 67-66-3 | |
| Chloromethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 74-87-3 | |
| 2-Chlorotoluene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 95-49-8 | |
| 4-Chlorotoluene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND ug/L | | 2.5 | 1 | | 10/30/13 15:45 | 96-12-8 | |
| Dibromochloromethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 106-93-4 | |
| Dibromomethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 106-46-7 | |
| Dichlorodifluoromethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 75-71-8 | |
| 1,1-Dichloroethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 75-34-3 | |
| 1,2-Dichloroethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 107-06-2 | |
| 1,2-Dichloroethene (Total) | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 540-59-0 | |
| 1,1-Dichloroethene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 156-60-5 | |
| 1,2-Dichloropropane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 78-87-5 | |
| 1,3-Dichloropropane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 142-28-9 | |
| 2,2-Dichloropropane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 594-20-7 | |
| 1,1-Dichloropropene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 10061-02-6 | |
| Ethylbenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 87-68-3 | |
| 2-Hexanone | ND ug/L | | 10.0 | 1 | | 10/30/13 15:45 | 591-78-6 | |
| Isopropylbenzene (Cumene) | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 98-82-8 | |
| p-Isopropyltoluene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 99-87-6 | |

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ANALYTICAL RESULTS

Project: KS Waste Water

Pace Project No.: 60156193

| Sample: RAPURGE-W-10246 | Lab ID: 60156193006 | Collected: 10/24/13 08:50 | Received: 10/25/13 08:15 | Matrix: Water | | | | |
|---------------------------------------|----------------------------|-----------------------------------|--------------------------|---------------|----------|----------------|------------|------|
| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
| 8260 MSV | | Analytical Method: EPA 5030B/8260 | | | | | | |
| Methylene chloride | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND ug/L | | 10.0 | 1 | | 10/30/13 15:45 | 108-10-1 | |
| Methyl-tert-butyl ether | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 1634-04-4 | |
| Naphthalene | ND ug/L | | 10.0 | 1 | | 10/30/13 15:45 | 91-20-3 | |
| n-Propylbenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 103-65-1 | |
| Styrene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 79-34-5 | |
| Tetrachloroethene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 127-18-4 | |
| Toluene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 79-00-5 | |
| Trichloroethene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 79-01-6 | |
| Trichlorofluoromethane | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND ug/L | | 2.5 | 1 | | 10/30/13 15:45 | 96-18-4 | |
| 1,2,4-Trimethylbenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 108-67-8 | |
| Vinyl chloride | ND ug/L | | 1.0 | 1 | | 10/30/13 15:45 | 75-01-4 | |
| Xylene (Total) | ND ug/L | | 3.0 | 1 | | 10/30/13 15:45 | 1330-20-7 | |
| Surrogates | | | | | | | | |
| 4-Bromofluorobenzene (S) | 100 % | | 80-120 | 1 | | 10/30/13 15:45 | 460-00-4 | |
| 1,2-Dichloroethane-d4 (S) | 100 % | | 80-120 | 1 | | 10/30/13 15:45 | 17060-07-0 | |
| Toluene-d8 (S) | 101 % | | 80-120 | 1 | | 10/30/13 15:45 | 2037-26-5 | |
| Preservation pH | 7.0 | | 0.10 | 1 | | 10/30/13 15:45 | | |
| 353.2 Nitrogen, NO2/NO3 unpres | | Analytical Method: EPA 353.2 | | | | | | |
| Nitrogen, Nitrate | 4.9 mg/L | | 0.20 | 2 | | 10/25/13 15:38 | | |

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: KS Waste Water

Pace Project No.: 60156193

QC Batch: MSV/57337 Analysis Method: EPA 5030B/8260
 QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 7 day
 Associated Lab Samples: 60156193001, 60156193002, 60156193003, 60156193004, 60156193005, 60156193006

METHOD BLANK: 1280651 Matrix: Water

Associated Lab Samples: 60156193001, 60156193002, 60156193003, 60156193004, 60156193005, 60156193006

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|-----------------------------|-------|--------------|-----------------|----------------|------------|
| 1,1,1,2-Tetrachloroethane | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| 1,1,1-Trichloroethane | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| 1,1,2,2-Tetrachloroethane | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| 1,1,2-Trichloroethane | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| 1,1-Dichloroethane | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| 1,1-Dichloroethene | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| 1,1-Dichloropropene | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| 1,2,3-Trichlorobenzene | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| 1,2,3-Trichloropropane | ug/L | ND | 2.5 | 10/30/13 10:57 | |
| 1,2,4-Trichlorobenzene | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| 1,2,4-Trimethylbenzene | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| 1,2-Dibromo-3-chloropropane | ug/L | ND | 2.5 | 10/30/13 10:57 | |
| 1,2-Dibromoethane (EDB) | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| 1,2-Dichlorobenzene | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| 1,2-Dichloroethane | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| 1,2-Dichloroethene (Total) | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| 1,2-Dichloropropane | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| 1,3,5-Trimethylbenzene | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| 1,3-Dichlorobenzene | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| 1,3-Dichloropropane | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| 1,4-Dichlorobenzene | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| 2,2-Dichloropropane | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| 2-Butanone (MEK) | ug/L | ND | 10.0 | 10/30/13 10:57 | |
| 2-Chlorotoluene | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| 2-Hexanone | ug/L | ND | 10.0 | 10/30/13 10:57 | |
| 4-Chlorotoluene | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| 4-Methyl-2-pentanone (MIBK) | ug/L | ND | 10.0 | 10/30/13 10:57 | |
| Acetone | ug/L | ND | 10.0 | 10/30/13 10:57 | |
| Benzene | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| Bromobenzene | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| Bromochloromethane | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| Bromodichloromethane | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| Bromoform | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| Bromomethane | ug/L | ND | 5.0 | 10/30/13 10:57 | |
| Carbon disulfide | ug/L | ND | 5.0 | 10/30/13 10:57 | |
| Carbon tetrachloride | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| Chlorobenzene | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| Chloroethane | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| Chloroform | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| Chloromethane | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| cis-1,2-Dichloroethene | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| cis-1,3-Dichloropropene | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| Dibromochloromethane | ug/L | ND | 1.0 | 10/30/13 10:57 | |

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: KS Waste Water

Pace Project No.: 60156193

METHOD BLANK: 1280651

Matrix: Water

Associated Lab Samples: 60156193001, 60156193002, 60156193003, 60156193004, 60156193005, 60156193006

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---------------------------|-------|--------------|-----------------|----------------|------------|
| Dibromomethane | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| Dichlorodifluoromethane | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| Ethylbenzene | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| Hexachloro-1,3-butadiene | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| Isopropylbenzene (Cumene) | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| Methyl-tert-butyl ether | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| Methylene chloride | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| n-Butylbenzene | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| n-Propylbenzene | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| Naphthalene | ug/L | ND | 10.0 | 10/30/13 10:57 | |
| p-Isopropyltoluene | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| sec-Butylbenzene | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| Styrene | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| tert-Butylbenzene | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| Tetrachloroethene | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| Toluene | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| trans-1,2-Dichloroethene | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| trans-1,3-Dichloropropene | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| Trichloroethene | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| Trichlorofluoromethane | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| Vinyl chloride | ug/L | ND | 1.0 | 10/30/13 10:57 | |
| Xylene (Total) | ug/L | ND | 3.0 | 10/30/13 10:57 | |
| 1,2-Dichloroethane-d4 (S) | % | 97 | 80-120 | 10/30/13 10:57 | |
| 4-Bromofluorobenzene (S) | % | 99 | 80-120 | 10/30/13 10:57 | |
| Toluene-d8 (S) | % | 101 | 80-120 | 10/30/13 10:57 | |

LABORATORY CONTROL SAMPLE: 1280652

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------------------------|-------|-------------|------------|-----------|--------------|------------|
| 1,1,1,2-Tetrachloroethane | ug/L | 20 | 21.3 | 107 | 79-121 | |
| 1,1,1-Trichloroethane | ug/L | 20 | 21.0 | 105 | 75-124 | |
| 1,1,2,2-Tetrachloroethane | ug/L | 20 | 20.3 | 101 | 73-120 | |
| 1,1,2-Trichloroethane | ug/L | 20 | 20.3 | 102 | 76-120 | |
| 1,1-Dichloroethane | ug/L | 20 | 19.3 | 97 | 73-120 | |
| 1,1-Dichloroethene | ug/L | 20 | 20.3 | 101 | 70-127 | |
| 1,1-Dichloropropene | ug/L | 20 | 21.2 | 106 | 79-124 | |
| 1,2,3-Trichlorobenzene | ug/L | 20 | 21.3 | 106 | 68-130 | |
| 1,2,3-Trichloropropane | ug/L | 20 | 21.5 | 107 | 72-124 | |
| 1,2,4-Trichlorobenzene | ug/L | 20 | 20.9 | 104 | 73-125 | |
| 1,2,4-Trimethylbenzene | ug/L | 20 | 21.2 | 106 | 76-120 | |
| 1,2-Dibromo-3-chloropropane | ug/L | 20 | 21.8 | 109 | 68-126 | |
| 1,2-Dibromoethane (EDB) | ug/L | 20 | 20.4 | 102 | 79-121 | |
| 1,2-Dichlorobenzene | ug/L | 20 | 20.3 | 101 | 79-120 | |
| 1,2-Dichloroethane | ug/L | 20 | 20.6 | 103 | 72-122 | |
| 1,2-Dichloroethene (Total) | ug/L | 40 | 40.4 | 101 | 77-120 | |

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: KS Waste Water

Pace Project No.: 60156193

LABORATORY CONTROL SAMPLE: 1280652

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------------------------|-------|-------------|------------|-----------|--------------|------------|
| 1,2-Dichloropropane | ug/L | 20 | 21.1 | 106 | 77-120 | |
| 1,3,5-Trimethylbenzene | ug/L | 20 | 21.2 | 106 | 75-120 | |
| 1,3-Dichlorobenzene | ug/L | 20 | 20.1 | 100 | 80-120 | |
| 1,3-Dichloropropane | ug/L | 20 | 19.8 | 99 | 76-120 | |
| 1,4-Dichlorobenzene | ug/L | 20 | 20.1 | 100 | 80-120 | |
| 2,2-Dichloropropane | ug/L | 20 | 13.3 | 67 | 52-135 | |
| 2-Butanone (MEK) | ug/L | 100 | 101 | 101 | 69-124 | |
| 2-Chlorotoluene | ug/L | 20 | 20.3 | 102 | 78-120 | |
| 2-Hexanone | ug/L | 100 | 100 | 100 | 70-125 | |
| 4-Chlorotoluene | ug/L | 20 | 20.0 | 100 | 80-120 | |
| 4-Methyl-2-pentanone (MIBK) | ug/L | 100 | 104 | 104 | 72-123 | |
| Acetone | ug/L | 100 | 93.5 | 93 | 60-126 | |
| Benzene | ug/L | 20 | 20.2 | 101 | 73-122 | |
| Bromobenzene | ug/L | 20 | 20.3 | 101 | 79-120 | |
| Bromochloromethane | ug/L | 20 | 19.6 | 98 | 76-125 | |
| Bromodichloromethane | ug/L | 20 | 20.9 | 105 | 73-120 | |
| Bromoform | ug/L | 20 | 20.0 | 100 | 74-120 | |
| Bromomethane | ug/L | 20 | 19.9 | 99 | 40-146 | |
| Carbon disulfide | ug/L | 20 | 21.4 | 107 | 62-125 | |
| Carbon tetrachloride | ug/L | 20 | 24.6 | 123 | 73-125 | |
| Chlorobenzene | ug/L | 20 | 20.7 | 104 | 80-120 | |
| Chloroethane | ug/L | 20 | 18.9 | 94 | 56-159 | |
| Chloroform | ug/L | 20 | 20.5 | 102 | 76-120 | |
| Chloromethane | ug/L | 20 | 17.5 | 87 | 40-148 | |
| cis-1,2-Dichloroethene | ug/L | 20 | 19.8 | 99 | 69-120 | |
| cis-1,3-Dichloropropene | ug/L | 20 | 20.7 | 104 | 76-120 | |
| Dibromochloromethane | ug/L | 20 | 21.3 | 107 | 79-121 | |
| Dibromomethane | ug/L | 20 | 19.1 | 95 | 77-120 | |
| Dichlorodifluoromethane | ug/L | 20 | 14.7 | 73 | 40-141 | |
| Ethylbenzene | ug/L | 20 | 20.7 | 103 | 76-123 | |
| Hexachloro-1,3-butadiene | ug/L | 20 | 21.8 | 109 | 69-125 | |
| Isopropylbenzene (Cumene) | ug/L | 20 | 22.5 | 112 | 80-130 | |
| Methyl-tert-butyl ether | ug/L | 20 | 16.6 | 83 | 67-128 | |
| Methylene chloride | ug/L | 20 | 21.5 | 107 | 71-123 | |
| n-Butylbenzene | ug/L | 20 | 20.6 | 103 | 77-124 | |
| n-Propylbenzene | ug/L | 20 | 19.9 | 99 | 78-120 | |
| Naphthalene | ug/L | 20 | 22.4 | 112 | 64-127 | |
| p-Isopropyltoluene | ug/L | 20 | 21.0 | 105 | 78-120 | |
| sec-Butylbenzene | ug/L | 20 | 21.1 | 105 | 77-122 | |
| Styrene | ug/L | 20 | 20.1 | 100 | 79-120 | |
| tert-Butylbenzene | ug/L | 20 | 20.9 | 104 | 76-123 | |
| Tetrachloroethene | ug/L | 20 | 20.1 | 101 | 79-122 | |
| Toluene | ug/L | 20 | 20.2 | 101 | 76-122 | |
| trans-1,2-Dichloroethene | ug/L | 20 | 20.6 | 103 | 78-126 | |
| trans-1,3-Dichloropropene | ug/L | 20 | 22.6 | 113 | 79-124 | |
| Trichloroethene | ug/L | 20 | 19.8 | 99 | 76-120 | |
| Trichlorofluoromethane | ug/L | 20 | 18.3 | 91 | 69-133 | |
| Vinyl chloride | ug/L | 20 | 17.7 | 89 | 57-140 | |

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: KS Waste Water

Pace Project No.: 60156193

LABORATORY CONTROL SAMPLE: 1280652

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---------------------------|-------|----------------|---------------|--------------|-----------------|------------|
| Xylene (Total) | ug/L | 60 | 61.4 | 102 | 76-122 | |
| 1,2-Dichloroethane-d4 (S) | % | | | 97 | 80-120 | |
| 4-Bromofluorobenzene (S) | % | | | 100 | 80-120 | |
| Toluene-d8 (S) | % | | | 101 | 80-120 | |

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: KS Waste Water
Pace Project No.: 60156193

QC Batch: WETA/26834 Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Associated Lab Samples: 60156193001, 60156193002, 60156193003, 60156193004, 60156193005, 60156193006

METHOD BLANK: 1278569 Matrix: Water
Associated Lab Samples: 60156193001, 60156193002, 60156193003, 60156193004, 60156193005, 60156193006

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|-------------------|-------|--------------|-----------------|----------------|------------|
| Nitrogen, Nitrate | mg/L | ND | 0.10 | 10/25/13 15:03 | |

LABORATORY CONTROL SAMPLE: 1278570

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-------------------|-------|-------------|------------|-----------|--------------|------------|
| Nitrogen, Nitrate | mg/L | 1.6 | 1.7 | 108 | 85-115 | |

MATRIX SPIKE SAMPLE: 1278581

| Parameter | Units | 60156197004 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|-------------------|-------|--------------------|-------------|-----------|----------|--------------|------------|
| Nitrogen, Nitrate | mg/L | ND | 1.6 | 1.6 | 101 | 85-115 | |

MATRIX SPIKE SAMPLE: 1278772

| Parameter | Units | 60156191001 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|-------------------|-------|--------------------|-------------|-----------|----------|--------------|------------|
| Nitrogen, Nitrate | mg/L | 1.5 | 1.6 | 3.0 | 95 | 85-115 | |

SAMPLE DUPLICATE: 1278582

| Parameter | Units | 60156240001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|-------------------|-------|--------------------|------------|-----|---------|------------|
| Nitrogen, Nitrate | mg/L | ND | ND | | 20 | |

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: KS Waste Water

Pace Project No.: 60156193

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

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.

BATCH QUALIFIERS

Batch: MSV/57337

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: OEXT/41322

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: KS Waste Water

Pace Project No.: 60156193

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|-----------------|-----------------|------------|-------------------|------------------|
| 60156193001 | AGPURGE-W-10241 | EPA 504.1 | OEXT/41322 | EPA 504.1 | GCSV/15742 |
| 60156193002 | BAPURGE-W-10242 | EPA 504.1 | OEXT/41322 | EPA 504.1 | GCSV/15742 |
| 60156193003 | CNPURGE-W-10243 | EPA 504.1 | OEXT/41322 | EPA 504.1 | GCSV/15742 |
| 60156193004 | EVPURGE-W-10244 | EPA 504.1 | OEXT/41322 | EPA 504.1 | GCSV/15742 |
| 60156193005 | MRPURGE-W-10245 | EPA 504.1 | OEXT/41322 | EPA 504.1 | GCSV/15742 |
| 60156193006 | RAPURGE-W-10246 | EPA 504.1 | OEXT/41322 | EPA 504.1 | GCSV/15742 |
| 60156193001 | AGPURGE-W-10241 | EPA 5030B/8260 | MSV/57337 | | |
| 60156193002 | BAPURGE-W-10242 | EPA 5030B/8260 | MSV/57337 | | |
| 60156193003 | CNPURGE-W-10243 | EPA 5030B/8260 | MSV/57337 | | |
| 60156193004 | EVPURGE-W-10244 | EPA 5030B/8260 | MSV/57337 | | |
| 60156193005 | MRPURGE-W-10245 | EPA 5030B/8260 | MSV/57337 | | |
| 60156193006 | RAPURGE-W-10246 | EPA 5030B/8260 | MSV/57337 | | |
| 60156193001 | AGPURGE-W-10241 | EPA 353.2 | WETA/26834 | | |
| 60156193002 | BAPURGE-W-10242 | EPA 353.2 | WETA/26834 | | |
| 60156193003 | CNPURGE-W-10243 | EPA 353.2 | WETA/26834 | | |
| 60156193004 | EVPURGE-W-10244 | EPA 353.2 | WETA/26834 | | |
| 60156193005 | MRPURGE-W-10245 | EPA 353.2 | WETA/26834 | | |
| 60156193006 | RAPURGE-W-10246 | EPA 353.2 | WETA/26834 | | |

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

WO#: 60156193



| |
|----------------|
| Optional |
| Proj Due Date: |
| Proj Name: |

Client Name: TCW Const.

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: 7969 7691 8459 Pace Shipping Label Used? Yes No

Custody Seal on Cooler/Box Present: Yes No Seals intact: Yes No

Packing Material: Bubble Wrap Bubble Bags Foam None Other

Thermometer Used: T-112 T-194 Type of Ice: Wet Blue None Samples received on ice, cooling process has begun. (circle one)

Cooler Temperature: 0.5

Date and initials of person examining contents: DD 10/25/13 935

Temperature should be above freezing to 6°C

| | | |
|--|---|--|
| Chain of Custody present: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 1. |
| Chain of Custody filled out: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 2. |
| Chain of Custody relinquished: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 3. |
| Sampler name & signature on COC: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 4. |
| Samples arrived within holding time: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 5. |
| Short Hold Time analyses (<72hr): | <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | 6. <u>NO2 2004 10-25-13</u> |
| Rush Turn Around Time requested: | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | 7. |
| Sufficient volume: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 8. |
| Correct containers used: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 9. |
| Pace containers used: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 9. |
| Containers intact: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 10. |
| Unpreserved 5035A soils frozen w/in 48hrs? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | 11. |
| Filtered volume received for dissolved tests? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | 12. |
| Sample labels match COC: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 13. |
| Includes date/time/ID/analyses | Matrix: <u>water</u> | 13. |
| All containers needing preservation have been checked. | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | 14. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | 14. |
| Exceptions: VOA, coliform, TOC, O&G, WI-DRO (water), Phenolics | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Initial when completed <u>MA</u> Lot # of added preservative |
| Trip Blank present: | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | |
| Pace Trip Blank lot # (if purchased): | <u>NA</u> | 15. |
| Headspace in VOA vials (>6mm): | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | 16. |
| Project sampled in USDA Regulated Area: | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | 17. List State: |

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: [Signature] Date: 10-25-13

Cash - Travis

AGEM 40 N

CITY OF SABETHA

805 MAIN

PO BOX 187

SABETHA KS 66534

785-284-2158

Receipt No: 1.011711

Dec 4, 2013

TCW

WASTEWATER FUND-MISC

Well Water

50.00

Total:

50.00

Cash

50.00

Total Applied:

50.00

Change Tendered:

.00

Supplement 2:

Sample Documentation from TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

Job Number: 200-18910-1

SDG Number: 18910

Job Description: Ramona (200-18910)

Contract Number: 1E-30401

For:

Argonne National Laboratory

9700 South Cass Avenue

Building 203

Office B-141

Argonne, IL 60439

Attention: Ms. Esther Bowen



Approved for release.
Kirk F Young
Project Manager I
10/29/2013 1:18 PM

Kirk F Young, Project Manager I
30 Community Drive, South Burlington, VT, 05403
(802)660-1990
kirk.young@testamericainc.com
10/29/2013

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

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CASE NARRATIVE

Client: Argonne National Laboratory

Project: Ramona (200-18910)

Report Number: 200-18910-1

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The samples were received on 10/11/2013. Documentation of the condition of the samples at the time of their receipt and any exception to the laboratory's Sample Acceptance Policy is documented in the Shipping Documentation section of this submittal. The samples, as received, were not acid preserved. On that basis, the laboratory did provide for the analysis of the samples within seven days of sample collection.

SOM01.2 Volatile Organics (Trace Level Water)

A storage blank was prepared for volatile organics analysis, and stored in association with the storage of the samples. That storage blank, identified as VHBLK01, was carried through the holding period with the samples, and analyzed.

Each sample was analyzed without a dilution. Each of the analyses associated with the sample set exhibited an acceptable internal standard performance. There was an acceptable recovery of each deuterated monitoring compound (DMC) in the analysis of the method blank associated with the analytical work, and in the analysis of the storage blank associated with the sample set. The analysis of the samples in this sample set did meet the technical acceptance criteria specific to DMC recoveries, although not all DMC recoveries were within the control range in each analysis. The technical acceptance criteria does provide for the recovery of up to three DMCs to fall outside of the control range in the analysis of field samples. Matrix spike and matrix spike duplicate analyses were not performed on samples in this sample set. The analysis of the method blank associated with the analytical work was free of target analyte contamination. Trace concentrations of acetone and toluene were identified in the analysis of the storage blank associated with the sample set. The concentration of each target analyte in that analysis was below the established reporting limit, and the analysis did meet the technical acceptance criteria for a compliant storage blank analysis. Present in the method blank and storage blank analyses was a non-target constituent that represents a compound that is related to the DMC formulation. The fact that the presence of this compound is not within the laboratory's control is at issue. The derived results for that compound have been qualified with an "X" qualifier to reflect the source of the contamination.

The responses for each of the target analytes met the relative standard deviation criterion in the initial calibration. The samples in this sample set were analyzed in an analytical sequence that included the initial calibration. The response for each target analyte met the 50.0 percent

difference criterion in the closing calibration check acquisition.

The primary quantitation mass for methylcyclohexane that is specified in the Statement of Work is mass 83. The laboratory did identify a contribution to mass 83 from 1,2-dichloropropane-d₆, one of the deuterated monitoring compounds (DMCs). The laboratory did change the primary quantitation mass assignment to mass 55 for the quantification of methylcyclohexane.

Manual integration was employed in deriving certain of the analytical results. The values that have been derived from manual integration are qualified on the quantitation reports. Extracted ion current profiles for each manual integration are included in the data package, and further documented at the end of this submittal.

DATA REPORTING QUALIFIERS

Client: Argonne National Laboratory

Job Number: 200-18910-1

Sdg Number: 18910

| Lab Section | Qualifier | Description |
|-------------|-----------|---|
| GC/MS VOA | U | Analyzed for but not detected. |
| | J | Indicates an Estimated Value for TICs |
| | J | Indicates an estimated value. |
| | X | See case narrative notes for explanation of the 'X' flag |
| | * | Surrogate exceeds the control limit |
| | B | The analyte was found in an associated blank, as well as in the sample. |
| | N | This flag indicates the presumptive evidence of a compound. |

From: (402) 416-7255
Travis Karnier
Argonne National Lab
9700 S CASS AVE

LEMONT, IL 60439

Origin ID: ENLA



J13201306280326

Ship Date: 10OCT13
ActWgt: 15.0 LB
CAD: 104734835/ANET3430

Dims: 14 X 9 X 11 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990

BILL SENDER

Kirk Young
Test America
30 COMMUNITY DR
STE 11
SOUTH BURLINGTON, VT 05403

Ref # 8A727-G1-167
Invoice #
PO # Ramona Water
Dept #

FRI - 11 OCT 10:30A
PRIORITY OVERNIGHT

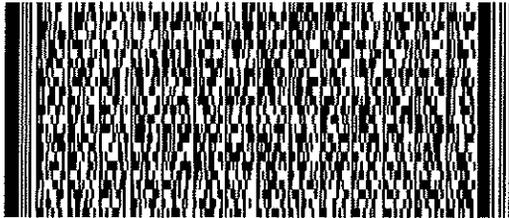
TRK# 7968 8605 7745

0201

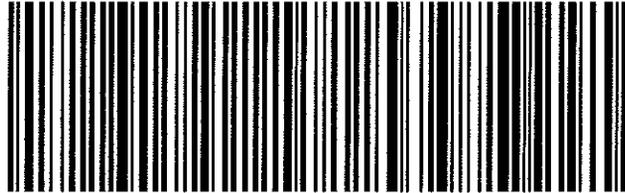
05403

VT-US

BTV



XH BTVA



51AG1/AB1B1/1A9E

After printing this label:

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

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

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Shipping and Receiving Documents

Login Sample Receipt Checklist

Client: Argonne National Laboratory

Job Number: 200-18910-1

SDG Number: 18910

Login Number: 18910

List Source: TestAmerica Burlington

List Number: 1

Creator: Poucher, Stephanie A

| Question | Answer | Comment |
|--|--------|---|
| Radioactivity wasn't checked or is \leq background as measured by a survey meter. | N/A | Lab does not accept radioactive samples. |
| The cooler's custody seal, if present, is intact. | True | NO NUMBERS |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | 0.2°C IR GUN ID 181. CF -0.2 |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time. | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | Check done at department level as required. |

Sample Login Acknowledgement

Job 200-18910-1

| | | | |
|----------------------------------|--------------------|-------------------|-----------------------------|
| Client Job Description: | Ramona (200-18910) | Report To: | Argonne National Laboratory |
| Purchase Order #: | 1E-30401 | | Jorge Alvarado |
| Work Order #: | 1E-30401 | | 9700 South Cass Avenue |
| Project Manager: | Kirk F Young | | Building 203 |
| Job Due Date: | 10/25/2013 | | Office B-141 |
| Job TAT: | 14 Days | | Argonne, IL 60439 |
| Max Deliverable Level: | IV | Bill To: | Argonne National Laboratory |
| | | | Accounts Payable |
| Earliest Deliverable Due: | 10/25/2013 | | Chief Financial Offices |
| | | | 9700 S. Cass Ave. |
| | | | Building 201 |
| | | | Argonne, IL 60439 |

Login 200-18910

| | | | |
|----------------------------|--------------------------|------------------------------------|------|
| Sample Receipt: | 10/11/2013 10:10:00 AM | Number of Coolers: | 1 |
| Method of Delivery: | FedEx Priority Overnight | Cooler Temperature(s) (C°): | 0.2; |

| Lab Sample # | Client Sample ID | Date Sampled | Matrix | Rpt Basis | Dry / Wet ** |
|--------------------|--|-------------------------------|--------------|-----------|--------------|
| Method | Method Description / Work Location | | | | |
| 200-18910-1 | RAMW4GRAB-W-36354 | 10/9/2013 11:15:00 AM | Water | | |
| SOM01.2_Vol_Tr | SOM01.2 Trace Volatile Organics / In-Lab | | | Total | Wet |
| 200-18910-2 | RAMW8-W-36363 | 10/9/2013 3:38:00 PM | Water | | |
| SOM01.2_Vol_Tr | SOM01.2 Trace Volatile Organics / In-Lab | | | Total | Wet |
| 200-18910-3 | RASVOBODA-W-36368 | 10/10/2013 2:14:00 PM | Water | | |
| SOM01.2_Vol_Tr | SOM01.2 Trace Volatile Organics / In-Lab | | | Total | Wet |
| 200-18910-4 | RAQCTB-W-36369 | 10/9/2013 11:00:00 AM | Water | | |
| SOM01.2_Vol_Tr | SOM01.2 Trace Volatile Organics / In-Lab | | | Total | Wet |
| 200-18910-5 | VHBLK01 | 10/11/2013 12:30:00 PM | Water | | |
| SOM01.2_Vol_Tr | SOM01.2 Trace Volatile Organics / In-Lab | | | Total | Wet |

* Method on-hold

** Wet/Dry indicates whether the reported results will be corrected for moisture content based on sample Wet weight or Dry weight.

METHODOLOGY SUMMARY

Laboratory: TestAmerica Laboratories

Project No:

Location: South Burlington, Vermont

SDG No: 18910

VOA

Volatile Organics Trace - USEPA CLP SOM01.2

2A - FORM II VOA-1
WATER VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: TESTAMERICA BURLINGTON

Contract: 8E-00302

Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____

SDG No.: 18910

Level: (TRACE or LOW) TRACE

| | EPA SAMPLE NO. | VDMC1 (VCL) # | VDMC2 (CLA) # | VDMC3 (DCE) # | VDMC4 (BUT) # | VDMC5 (CLF) # | VDMC6 (DCA) # | VDMC7 (BEN) # |
|----|-----------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| 01 | VBLKEP | 92 | 95 | 79 | 108 | 97 | 103 | 94 |
| 02 | RAMW4GRAB-W-36 354 | 101 | 104 | 89 | 149 | 104 | 108 | 103 |
| 03 | RAMW8-W-36363 | 100 | 104 | 87 | 140 | 104 | 110 | 105 |
| 04 | RASVOBODA-W-36 368 | 96 | 99 | 84 | 142 | 103 | 114 | 102 |
| 05 | RAQCTB-W-36369 | 97 | 100 | 84 | 117 | 100 | 105 | 101 |
| 06 | VHBLK01 | 93 | 97 | 82 | 106 | 96 | 101 | 99 |

| | | <u>QC LIMITS</u> |
|-------|-------------------------------|------------------|
| VDMC1 | (VCL) = Vinyl Chloride-d3 | (65-131) |
| VDMC2 | (CLA) = Chloroethane-d5 | (71-131) |
| VDMC3 | (DCE) = 1,1-Dichloroethene-d2 | (55-104) |
| VDMC4 | (BUT) = 2-Butanone-d5 | (49-155) |
| VDMC5 | (CLF) = Chloroform-d | (78-121) |
| VDMC6 | (DCA) = 1,2-Dichloroethane-d4 | (78-129) |
| VDMC7 | (BEN) = Benzene-d6 | (77-124) |

Column to be used to flag recovery values
* Values outside of contract required QC limits

2B - FORM II VOA-2
WATER VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: TESTAMERICA BURLINGTON

Contract: 8E-00302

Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____

SDG No.: 18910

Level: (TRACE or LOW) TRACE

| | EPA SAMPLE NO. | VDMC8 (DPA) # | VDMC9 (TOL) # | VDMC10 (TDP) # | VDMC11 (HEX) # | VDMC12 (TCA) # | VDMC13 (DCZ) # | OTHER | TOT OUT |
|----|-----------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-------|------------|
| 01 | VBLKEP | 96 | 97 | 92 | 102 | 96 | 95 | | 0 |
| 02 | RAMW4GRAB-W-36 354 | 105 | 104 | 100 | 138 * | 104 | 101 | | 1 |
| 03 | RAMW8-W-36363 | 107 | 106 | 101 | 131 | 101 | 104 | | 0 |
| 04 | RASVOBODA-W-36 368 | 107 | 102 | 104 | 136 * | 109 | 104 | | 1 |
| 05 | RAQCTB-W-36369 | 103 | 103 | 95 | 114 | 100 | 102 | | 0 |
| 06 | VHBLK01 | 100 | 100 | 94 | 101 | 97 | 98 | | 0 |

| | | QC LIMITS |
|--------|--------------------------------------|-----------|
| VDMC8 | (DPA) = 1,2-Dichloropropane-d6 | (79-124) |
| VDMC9 | (TOL) = Toluene-d8 | (77-121) |
| VDMC10 | (TDP) = trans-1,3-Dichloropropene-d4 | (73-121) |
| VDMC11 | (HEX) = 2-Hexanone-d5 | (28-135) |
| VDMC12 | (TCA) = 1,1,2,2-Tetrachloroethane-d2 | (73-125) |
| VDMC13 | (DCZ) = 1,2-Dichlorobenzene-d4 | (80-131) |

Column to be used to flag recovery values

* Values outside of contract required QC limits

Report 1,4-Dioxane-d8 for Low-Medium VOA analysis only

4A - FORM IV VOA
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKEP

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 18910
 Lab File ID: DKL10.D Lab Sample ID: MB 200-62881/10
 Instrument ID: D.i
 Matrix: (SOIL/SED/WATER) Water Date Analyzed: 10/16/2013
 Level: (TRACE or LOW/MED) TRACE Time Analyzed: 1438
 GC Column: DB-624 ID: 0.20 (mm) Heated Purge: (Y/N) N

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | TIME ANALYZED |
|----|-------------------|------------------|----------------|------------------|
| 01 | RAMW4GRAB-W-36354 | 200-18910-1 | DKL11.D | 1620 |
| 02 | RAMW8-W-36363 | 200-18910-2 | DKL12.D | 1644 |
| 03 | RASVOBODA-W-36368 | 200-18910-3 | DKL13.D | 1708 |
| 04 | RAQCTB-W-36369 | 200-18910-4 | DKL14.D | 1732 |
| 05 | VHBLK01 | 200-18910-5 | DKL15.D | 1756 |

COMMENTS: _____

5A - FORM V VOA
VOLATILE ORGANICS INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

EPA SAMPLE NO.

BFBEP

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 18910
Lab File Id: DKL01.D BFB Injection Date: 10/16/2013
Instrument Id: D.i BFB Injection Time: 1108
GC Column: DB-624 ID: 0.20 (mm)

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|-----|------------------------------------|----------------------|
| 50 | 15.0 - 40.0% of mass 95 | 17.0 |
| 75 | 30.0 - 80.0% of mass 95 | 47.5 |
| 95 | Base peak, 100% relative abundance | 100 |
| 96 | 5.0 - 9.0% of mass 95 | 6.8 |
| 173 | Less than 2.0% of mass 174 | 0.5 (0.5)1 |
| 174 | 50.0 - 120% of mass 95 | 97.4 |
| 175 | 5.0 - 9.0% of mass 174 | 6.6 (6.7)1 |
| 176 | 95.0 - 101% of mass 174 | 93.0 (95.5)1 |
| 177 | 5.0 - 9.0% of mass 176 | 6.0 (6.5)2 |

1 - Value is %mass 174

2 - Value is %mass 176

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|----|-------------------|-------------------|-------------|---------------|---------------|
| 01 | VSTD0.5EP | IC 200-62881/2 | DKL02.D | 10/16/2013 | 1127 |
| 02 | VSTD001EP | IC 200-62881/3 | DKL03.D | 10/16/2013 | 1151 |
| 03 | VSTD005EP | ICIS 200-62881/4 | DKL04.D | 10/16/2013 | 1215 |
| 04 | VSTD010EP | IC 200-62881/5 | DKL05.D | 10/16/2013 | 1238 |
| 05 | VSTD020EP | IC 200-62881/6 | DKL06.D | 10/16/2013 | 1302 |
| 06 | VBLKEP | MB 200-62881/10 | DKL10.D | 10/16/2013 | 1438 |
| 07 | RAMW4GRAB-W-36354 | 200-18910-1 | DKL11.D | 10/16/2013 | 1620 |
| 08 | RAMW8-W-36363 | 200-18910-2 | DKL12.D | 10/16/2013 | 1644 |
| 09 | RASVOBODA-W-36368 | 200-18910-3 | DKL13.D | 10/16/2013 | 1708 |
| 10 | RAQCTB-W-36369 | 200-18910-4 | DKL14.D | 10/16/2013 | 1732 |
| 11 | VHBLK01 | 200-18910-5 | DKL15.D | 10/16/2013 | 1756 |
| 12 | VSTD005PE | CCVC 200-62881/16 | DKL16.D | 10/16/2013 | 1820 |

8A - FORM VIII VOA
VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 18910
 GC Column: DB-624 ID: 0.20 (mm) Init. Calib. Date(s): 10/16/2013 10/16/2013
 EPA Sample No. (VSTD#####): VSTD005EP Date Analyzed: 10/16/2013
 Lab File ID (Standard): DKL04.D Time Analyzed: 1215
 Instrument ID: D.i Heated Purge: (Y/N) N

| | IS1 (CBZ) | | IS2 (DFB) | | IS3 (DCB) | | | | | | |
|--------------------------|-----------|---|-----------|---|-----------|---|------|---|--------|--|-------|
| | AREA | # | RT | # | AREA | # | RT | # | | | |
| 12 HOUR STD | 385205 | | 9.26 | | 452530 | | 5.90 | | 178248 | | 12.07 |
| UPPER LIMIT | 539287 | | 9.59 | | 633542 | | 6.23 | | 249547 | | 12.40 |
| LOWER LIMIT | 231123 | | 8.93 | | 271518 | | 5.57 | | 106949 | | 11.74 |
| EPA SAMPLE NO. | | | | | | | | | | | |
| 01 VBLKEP | 346038 | | 9.26 | | 395301 | | 5.90 | | 155824 | | 12.07 |
| 02 RAMW4GRAB-W-36 354 | 349682 | | 9.26 | | 407992 | | 5.90 | | 150573 | | 12.07 |
| 03 RAMW8-W-36363 | 350675 | | 9.26 | | 411142 | | 5.90 | | 150104 | | 12.07 |
| 04 RASVOBODA-W-36 368 | 360742 | | 9.26 | | 417004 | | 5.90 | | 159875 | | 12.07 |
| 05 RAQCTB-W-36369 | 348754 | | 9.26 | | 406155 | | 5.90 | | 150872 | | 12.07 |
| 06 VHBLK01 | 360998 | | 9.26 | | 423927 | | 5.90 | | 153662 | | 12.08 |

IS1 (CBZ) = Chlorobenzene-d5
 IS2 (DFB) = 1,4-Difluorobenzene
 IS3 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = 140% (Trace Volatiles) of internal standard area
 AREA LOWER LIMIT = 60% (Trace Volatiles) of internal standard area
 RT UPPER LIMIT = + 0.33 (Trace Volatiles) minutes of internal standard RT
 RT LOWER LIMIT = - 0.33 (Trace Volatiles) minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 18910
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-18910-1
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: DKL11.D
 Level: (TRACE/LOW/MED) TRACE Date Received: 10/11/2013
 % Moisture: not dec. Date Analyzed: 10/16/2013
 GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 25.0 (mL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/L | Q |
|-----------|---------------------------------------|--|---|
| 75-71-8 | Dichlorodifluoromethane | 0.50 | U |
| 74-87-3 | Chloromethane | 0.50 | U |
| 75-01-4 | Vinyl chloride | 0.50 | U |
| 74-83-9 | Bromomethane | 0.50 | U |
| 75-00-3 | Chloroethane | 0.50 | U |
| 75-69-4 | Trichlorofluoromethane | 0.50 | U |
| 75-35-4 | 1,1-Dichloroethene | 0.50 | U |
| 76-13-1 | 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.50 | U |
| 67-64-1 | Acetone | 5.0 | U |
| 75-15-0 | Carbon disulfide | 0.50 | U |
| 79-20-9 | Methyl acetate | 0.50 | U |
| 75-09-2 | Methylene Chloride | 0.50 | U |
| 156-60-5 | trans-1,2-Dichloroethene | 0.50 | U |
| 1634-04-4 | Methyl tert-butyl ether | 0.50 | U |
| 75-34-3 | 1,1-Dichloroethane | 0.50 | U |
| 156-59-2 | cis-1,2-Dichloroethene | 0.50 | U |
| 78-93-3 | 2-Butanone | 5.0 | U |
| 74-97-5 | Bromochloromethane | 0.50 | U |
| 67-66-3 | Chloroform | 0.12 | J |
| 71-55-6 | 1,1,1-Trichloroethane | 0.50 | U |
| 110-82-7 | Cyclohexane | 0.50 | U |
| 56-23-5 | Carbon tetrachloride | 0.33 | J |
| 71-43-2 | Benzene | 0.50 | U |
| 107-06-2 | 1,2-Dichloroethane | 0.50 | U |

Report 1,4-Dioxane for Low-Medium VOA analysis only

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 18910
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-18910-1
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: DKL11.D
 Level: (TRACE/LOW/MED) TRACE Date Received: 10/11/2013
 % Moisture: not dec. Date Analyzed: 10/16/2013
 GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 25.0 (mL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/L | Q |
|-------------|-----------------------------|--|---|
| 79-01-6 | Trichloroethene | 0.50 | U |
| 108-87-2 | Methylcyclohexane | 0.50 | U |
| 78-87-5 | 1,2-Dichloropropane | 0.50 | U |
| 75-27-4 | Bromodichloromethane | 0.50 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 0.50 | U |
| 108-10-1 | 4-Methyl-2-pentanone | 5.0 | U |
| 108-88-3 | Toluene | 0.026 | J |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.50 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 0.50 | U |
| 127-18-4 | Tetrachloroethene | 0.50 | U |
| 591-78-6 | 2-Hexanone | 5.0 | U |
| 124-48-1 | Dibromochloromethane | 0.50 | U |
| 106-93-4 | 1,2-Dibromoethane | 0.50 | U |
| 108-90-7 | Chlorobenzene | 0.50 | U |
| 100-41-4 | Ethylbenzene | 0.0075 | J |
| 95-47-6 | o-Xylene | 0.0038 | J |
| 179601-23-1 | m,p-Xylene | 0.019 | J |
| 100-42-5 | Styrene | 0.50 | U |
| 75-25-2 | Bromoform | 0.50 | U |
| 98-82-8 | Isopropylbenzene | 0.50 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 0.50 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 0.50 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 0.013 | J |
| 95-50-1 | 1,2-Dichlorobenzene | 0.50 | U |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 0.50 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 0.50 | U |
| 87-61-6 | 1,2,3-Trichlorobenzene | 0.50 | U |

1J - FORM I VOA-TIC
 VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
 RAMW4GRAB-W-36354

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 18910
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-18910-1
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: DKL11.D
 Level: (TRACE or LOW/MED) TRACE Date Received: 10/11/2013
 % Moisture: not dec. Date Analyzed: 10/16/2013
 GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 CONCENTRATION UNITS: (ug/L or ug/kg) ug/L Purge Volume: 25.0 (mL)

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|----|----------------------|---------------------------------|-------|------------|-------|
| 01 | | Unknown | 7.21 | 2.7 | J B X |
| 02 | 556-67-2 | Cyclotetrasiloxane, octamethyl- | 10.29 | 3.7 | J N |
| 03 | | Unknown | 13.03 | 1.8 | J |
| 04 | E966796 ¹ | Total Alkanes | N/A | | |

¹EPA-designated Registry Number.

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 18910
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-18910-2
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: DKL12.D
 Level: (TRACE/LOW/MED) TRACE Date Received: 10/11/2013
 % Moisture: not dec. Date Analyzed: 10/16/2013
 GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 25.0 (mL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u> | <u>Q</u> |
|-----------|---------------------------------------|---|----------|
| 75-71-8 | Dichlorodifluoromethane | 0.50 | U |
| 74-87-3 | Chloromethane | 0.50 | U |
| 75-01-4 | Vinyl chloride | 0.50 | U |
| 74-83-9 | Bromomethane | 0.50 | U |
| 75-00-3 | Chloroethane | 0.50 | U |
| 75-69-4 | Trichlorofluoromethane | 0.50 | U |
| 75-35-4 | 1,1-Dichloroethene | 0.50 | U |
| 76-13-1 | 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.50 | U |
| 67-64-1 | Acetone | 5.0 | U |
| 75-15-0 | Carbon disulfide | 0.50 | U |
| 79-20-9 | Methyl acetate | 0.50 | U |
| 75-09-2 | Methylene Chloride | 0.50 | U |
| 156-60-5 | trans-1,2-Dichloroethene | 0.50 | U |
| 1634-04-4 | Methyl tert-butyl ether | 0.50 | U |
| 75-34-3 | 1,1-Dichloroethane | 0.50 | U |
| 156-59-2 | cis-1,2-Dichloroethene | 0.50 | U |
| 78-93-3 | 2-Butanone | 5.0 | U |
| 74-97-5 | Bromochloromethane | 0.50 | U |
| 67-66-3 | Chloroform | 0.45 | J |
| 71-55-6 | 1,1,1-Trichloroethane | 0.50 | U |
| 110-82-7 | Cyclohexane | 0.50 | U |
| 56-23-5 | Carbon tetrachloride | 1.3 | |
| 71-43-2 | Benzene | 0.50 | U |
| 107-06-2 | 1,2-Dichloroethane | 0.50 | U |

Report 1,4-Dioxane for Low-Medium VOA analysis only

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 18910
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-18910-2
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: DKL12.D
 Level: (TRACE/LOW/MED) TRACE Date Received: 10/11/2013
 % Moisture: not dec. Date Analyzed: 10/16/2013
 GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 25.0 (mL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: | | Q |
|-------------|-----------------------------|----------------------|------|---|
| | | (ug/L or ug/kg) | ug/L | |
| 79-01-6 | Trichloroethene | 0.50 | U | |
| 108-87-2 | Methylcyclohexane | 0.50 | U | |
| 78-87-5 | 1,2-Dichloropropane | 0.50 | U | |
| 75-27-4 | Bromodichloromethane | 0.50 | U | |
| 10061-01-5 | cis-1,3-Dichloropropene | 0.50 | U | |
| 108-10-1 | 4-Methyl-2-pentanone | 5.0 | U | |
| 108-88-3 | Toluene | 0.023 | J | |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.50 | U | |
| 79-00-5 | 1,1,2-Trichloroethane | 0.50 | U | |
| 127-18-4 | Tetrachloroethene | 0.50 | U | |
| 591-78-6 | 2-Hexanone | 5.0 | U | |
| 124-48-1 | Dibromochloromethane | 0.50 | U | |
| 106-93-4 | 1,2-Dibromoethane | 0.50 | U | |
| 108-90-7 | Chlorobenzene | 0.50 | U | |
| 100-41-4 | Ethylbenzene | 0.50 | U | |
| 95-47-6 | o-Xylene | 0.50 | U | |
| 179601-23-1 | m,p-Xylene | 0.50 | U | |
| 100-42-5 | Styrene | 0.50 | U | |
| 75-25-2 | Bromoform | 0.50 | U | |
| 98-82-8 | Isopropylbenzene | 0.50 | U | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 0.50 | U | |
| 541-73-1 | 1,3-Dichlorobenzene | 0.50 | U | |
| 106-46-7 | 1,4-Dichlorobenzene | 0.50 | U | |
| 95-50-1 | 1,2-Dichlorobenzene | 0.50 | U | |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 0.50 | U | |
| 120-82-1 | 1,2,4-Trichlorobenzene | 0.50 | U | |
| 87-61-6 | 1,2,3-Trichlorobenzene | 0.50 | U | |

1J - FORM I VOA-TIC
 VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RAMW8-W-36363

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 18910
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-18910-2
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: DKL12.D
 Level: (TRACE or LOW/MED) TRACE Date Received: 10/11/2013
 % Moisture: not dec. _____ Date Analyzed: 10/16/2013
 GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 CONCENTRATION UNITS: (ug/L or ug/kg) ug/L Purge Volume: 25.0 (mL)

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|----|----------------------|---------------|------|------------|-------|
| 01 | | Unknown | 7.22 | 2.7 | J B X |
| 02 | E966796 ¹ | Total Alkanes | N/A | | |

¹EPA-designated Registry Number.

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 18910
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-18910-4
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: DKL14.D
 Level: (TRACE/LOW/MED) TRACE Date Received: 10/11/2013
 % Moisture: not dec. Date Analyzed: 10/16/2013
 GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 25.0 (mL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u> | <u>Q</u> |
|-----------|---------------------------------------|---|----------|
| 75-71-8 | Dichlorodifluoromethane | 0.50 | U |
| 74-87-3 | Chloromethane | 0.50 | U |
| 75-01-4 | Vinyl chloride | 0.50 | U |
| 74-83-9 | Bromomethane | 0.50 | U |
| 75-00-3 | Chloroethane | 0.50 | U |
| 75-69-4 | Trichlorofluoromethane | 0.50 | U |
| 75-35-4 | 1,1-Dichloroethene | 0.50 | U |
| 76-13-1 | 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.50 | U |
| 67-64-1 | Acetone | 3.6 | J |
| 75-15-0 | Carbon disulfide | 0.50 | U |
| 79-20-9 | Methyl acetate | 0.50 | U |
| 75-09-2 | Methylene Chloride | 0.50 | U |
| 156-60-5 | trans-1,2-Dichloroethene | 0.50 | U |
| 1634-04-4 | Methyl tert-butyl ether | 0.50 | U |
| 75-34-3 | 1,1-Dichloroethane | 0.50 | U |
| 156-59-2 | cis-1,2-Dichloroethene | 0.50 | U |
| 78-93-3 | 2-Butanone | 5.0 | U |
| 74-97-5 | Bromochloromethane | 0.50 | U |
| 67-66-3 | Chloroform | 0.50 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 0.50 | U |
| 110-82-7 | Cyclohexane | 0.50 | U |
| 56-23-5 | Carbon tetrachloride | 0.50 | U |
| 71-43-2 | Benzene | 0.50 | U |
| 107-06-2 | 1,2-Dichloroethane | 0.50 | U |

Report 1,4-Dioxane for Low-Medium VOA analysis only

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 18910
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-18910-4
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: DKL14.D
 Level: (TRACE/LOW/MED) TRACE Date Received: 10/11/2013
 % Moisture: not dec. Date Analyzed: 10/16/2013
 GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 25.0 (mL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/L | Q |
|-------------|-----------------------------|--|---|
| 79-01-6 | Trichloroethene | 0.50 | U |
| 108-87-2 | Methylcyclohexane | 0.50 | U |
| 78-87-5 | 1,2-Dichloropropane | 0.50 | U |
| 75-27-4 | Bromodichloromethane | 0.50 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 0.50 | U |
| 108-10-1 | 4-Methyl-2-pentanone | 5.0 | U |
| 108-88-3 | Toluene | 0.092 | J |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.50 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 0.50 | U |
| 127-18-4 | Tetrachloroethene | 0.50 | U |
| 591-78-6 | 2-Hexanone | 5.0 | U |
| 124-48-1 | Dibromochloromethane | 0.50 | U |
| 106-93-4 | 1,2-Dibromoethane | 0.50 | U |
| 108-90-7 | Chlorobenzene | 0.50 | U |
| 100-41-4 | Ethylbenzene | 0.015 | J |
| 95-47-6 | o-Xylene | 0.044 | J |
| 179601-23-1 | m,p-Xylene | 0.033 | J |
| 100-42-5 | Styrene | 0.025 | J |
| 75-25-2 | Bromoform | 0.50 | U |
| 98-82-8 | Isopropylbenzene | 0.50 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 0.50 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 0.0098 | J |
| 106-46-7 | 1,4-Dichlorobenzene | 0.053 | J |
| 95-50-1 | 1,2-Dichlorobenzene | 0.017 | J |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 0.50 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 0.50 | U |
| 87-61-6 | 1,2,3-Trichlorobenzene | 0.50 | U |

1J - FORM I VOA-TIC
 VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RAQCTB-W-36369

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 18910
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-18910-4
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: DKL14.D
 Level: (TRACE or LOW/MED) TRACE Date Received: 10/11/2013
 % Moisture: not dec. _____ Date Analyzed: 10/16/2013
 GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 CONCENTRATION UNITS: (ug/L or ug/kg) ug/L Purge Volume: 25.0 (mL)

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|----|----------------------|---------------|------|------------|-------|
| 01 | | Unknown | 7.22 | 2.6 | J B X |
| 02 | E966796 ¹ | Total Alkanes | N/A | | |

¹EPA-designated Registry Number.

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 18910
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-18910-3
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: DKL13.D
 Level: (TRACE/LOW/MED) TRACE Date Received: 10/11/2013
 % Moisture: not dec. Date Analyzed: 10/16/2013
 GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 25.0 (mL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u> | <u>Q</u> |
|-----------|---------------------------------------|---|----------|
| 75-71-8 | Dichlorodifluoromethane | 0.50 | U |
| 74-87-3 | Chloromethane | 0.50 | U |
| 75-01-4 | Vinyl chloride | 0.50 | U |
| 74-83-9 | Bromomethane | 0.50 | U |
| 75-00-3 | Chloroethane | 0.50 | U |
| 75-69-4 | Trichlorofluoromethane | 0.50 | U |
| 75-35-4 | 1,1-Dichloroethene | 0.50 | U |
| 76-13-1 | 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.50 | U |
| 67-64-1 | Acetone | 5.0 | U |
| 75-15-0 | Carbon disulfide | 0.50 | U |
| 79-20-9 | Methyl acetate | 0.50 | U |
| 75-09-2 | Methylene Chloride | 0.50 | U |
| 156-60-5 | trans-1,2-Dichloroethene | 0.50 | U |
| 1634-04-4 | Methyl tert-butyl ether | 0.50 | U |
| 75-34-3 | 1,1-Dichloroethane | 0.50 | U |
| 156-59-2 | cis-1,2-Dichloroethene | 0.50 | U |
| 78-93-3 | 2-Butanone | 5.0 | U |
| 74-97-5 | Bromochloromethane | 0.50 | U |
| 67-66-3 | Chloroform | 0.55 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 0.50 | U |
| 110-82-7 | Cyclohexane | 0.50 | U |
| 56-23-5 | Carbon tetrachloride | 1.4 | U |
| 71-43-2 | Benzene | 0.50 | U |
| 107-06-2 | 1,2-Dichloroethane | 0.50 | U |

Report 1,4-Dioxane for Low-Medium VOA analysis only

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 18910
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-18910-3
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: DKL13.D
 Level: (TRACE/LOW/MED) TRACE Date Received: 10/11/2013
 % Moisture: not dec. Date Analyzed: 10/16/2013
 GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 25.0 (mL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/L | Q |
|-------------|-----------------------------|--|---|
| 79-01-6 | Trichloroethene | 0.50 | U |
| 108-87-2 | Methylcyclohexane | 0.50 | U |
| 78-87-5 | 1,2-Dichloropropane | 0.50 | U |
| 75-27-4 | Bromodichloromethane | 0.50 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 0.50 | U |
| 108-10-1 | 4-Methyl-2-pentanone | 5.0 | U |
| 108-88-3 | Toluene | 0.024 | J |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.50 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 0.50 | U |
| 127-18-4 | Tetrachloroethene | 0.50 | U |
| 591-78-6 | 2-Hexanone | 5.0 | U |
| 124-48-1 | Dibromochloromethane | 0.50 | U |
| 106-93-4 | 1,2-Dibromoethane | 0.50 | U |
| 108-90-7 | Chlorobenzene | 0.50 | U |
| 100-41-4 | Ethylbenzene | 0.50 | U |
| 95-47-6 | o-Xylene | 0.50 | U |
| 179601-23-1 | m,p-Xylene | 0.50 | U |
| 100-42-5 | Styrene | 0.50 | U |
| 75-25-2 | Bromoform | 0.50 | U |
| 98-82-8 | Isopropylbenzene | 0.50 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 0.50 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 0.50 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 0.50 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 0.50 | U |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 0.50 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 0.50 | U |
| 87-61-6 | 1,2,3-Trichlorobenzene | 0.50 | U |

1J - FORM I VOA-TIC
 VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
 RASVOBODA-W-36368

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 18910
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-18910-3
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: DKL13.D
 Level: (TRACE or LOW/MED) TRACE Date Received: 10/11/2013
 % Moisture: not dec. Date Analyzed: 10/16/2013
 GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 CONCENTRATION UNITS: (ug/L or ug/kg) ug/L Purge Volume: 25.0 (mL)

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|----|----------------------|---------------|------|------------|-------|
| 01 | | Unknown | 7.22 | 2.8 | J B X |
| 02 | E966796 ¹ | Total Alkanes | N/A | | |

¹EPA-designated Registry Number.

6A - FORM VI VOA-1
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 18910
 Instrument ID: D.i Calibration Date(s): 10/16/2013 10/16/2013
 Heated Purge: (Y/N) N Calibration Time(s): 1127 1302
 Purge Volume: 25.0 (mL)
 GC Column: DB-624 ID: 0.20 (mm) Length: 25 (m)

LAB FILE ID: _____ RRF_{0.5} = DKL02.D RRF_{1.0} = DKL03.D
 RRF_{5.0} = DKL04.D RRF₁₀ = DKL05.D RRF₂₀ = DKL06.D

| COMPOUND | RRF _{0.5} | RRF _{1.0} | RRF _{5.0} | RRF ₁₀ | RRF ₂₀ | RRF | %RSD |
|---|--------------------|--------------------|--------------------|-------------------|-------------------|-------|------|
| Dichlorodifluoromethane | 0.224 | 0.218 | 0.226 | 0.224 | 0.227 | 0.224 | 1.6 |
| Chloromethane | 0.255 | 0.231 | 0.223 | 0.222 | 0.221 | 0.230 | 6.2 |
| Vinyl chloride | 0.273 | 0.270 | 0.273 | 0.270 | 0.265 | 0.270 | 1.1 |
| Bromomethane | 0.261 | 0.239 | 0.217 | 0.212 | 0.187 | 0.223 | 12.6 |
| Chloroethane | 0.192 | 0.179 | 0.173 | 0.166 | 0.152 | 0.173 | 8.6 |
| Trichlorofluoromethane | 0.586 | 0.577 | 0.581 | 0.576 | 0.565 | 0.577 | 1.4 |
| 1,1-Dichloroethene | 0.367 | 0.365 | 0.374 | 0.364 | 0.347 | 0.364 | 2.7 |
| 1,1,2-Trichloro- 1,2,2-trifluoroethane | 0.421 | 0.408 | 0.421 | 0.409 | 0.396 | 0.411 | 2.6 |
| Acetone | 0.019 | 0.014 | 0.012 | 0.012 | 0.011 | 0.014 | 23.3 |
| Carbon disulfide | 0.702 | 0.599 | 0.677 | 0.697 | 0.740 | 0.683 | 7.7 |
| Methyl acetate | 0.033 | 0.030 | 0.032 | 0.031 | 0.032 | 0.032 | 3.1 |
| Methylene Chloride | 0.267 | 0.233 | 0.225 | 0.222 | 0.227 | 0.235 | 7.9 |
| trans-1,2-Dichloroethene | 0.302 | 0.279 | 0.305 | 0.319 | 0.341 | 0.309 | 7.4 |
| Methyl tert-butyl ether | 0.213 | 0.217 | 0.277 | 0.291 | 0.313 | 0.262 | 17.1 |
| 1,1-Dichloroethane | 0.424 | 0.423 | 0.474 | 0.478 | 0.496 | 0.459 | 7.3 |
| cis-1,2-Dichloroethene | 0.286 | 0.263 | 0.294 | 0.305 | 0.318 | 0.293 | 7.1 |
| 2-Butanone | 0.017 | 0.016 | 0.020 | 0.021 | 0.022 | 0.020 | 12.9 |
| Bromochloromethane | 0.087 | 0.089 | 0.097 | 0.101 | 0.107 | 0.096 | 8.6 |
| Chloroform | 0.413 | 0.411 | 0.466 | 0.474 | 0.496 | 0.452 | 8.4 |
| 1,1,1-Trichloroethane | 0.485 | 0.497 | 0.611 | 0.657 | 0.699 | 0.590 | 16.2 |
| Cyclohexane | 0.533 | 0.521 | 0.595 | 0.628 | 0.647 | 0.585 | 9.6 |
| Carbon tetrachloride | 0.442 | 0.438 | 0.570 | 0.622 | 0.677 | 0.550 | 19.5 |
| Benzene | 1.173 | 1.172 | 1.333 | 1.450 | 1.548 | 1.335 | 12.5 |
| 1,2-Dichloroethane | 0.180 | 0.179 | 0.211 | 0.217 | 0.221 | 0.202 | 10.1 |
| Trichloroethene | 0.351 | 0.324 | 0.381 | 0.411 | 0.445 | 0.382 | 12.5 |
| Methylcyclohexane | 0.404 | 0.416 | 0.476 | 0.502 | 0.517 | 0.463 | 11.0 |

Report 1,4-Dioxane for Low-Medium VOA analysis only

6B - FORM VI VOA-2
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 18910
 Instrument ID: D.i Calibration Date(s): 10/16/2013 10/16/2013
 Heated Purge: (Y/N) N Calibration Time(s): 1127 1302
 Purge Volume: 25.0 (mL)
 GC Column: DB-624 ID: 0.20 (mm) Length: 25 (m)

LAB FILE ID: _____ RRF_{0.5} = DKL02.D RRF_{1.0} = DKL03.D
 RRF_{5.0} = DKL04.D RRF₁₀ = DKL05.D RRF₂₀ = DKL06.D

| COMPOUND | RRF _{0.5} | RRF _{1.0} | RRF _{5.0} | RRF ₁₀ | RRF ₂₀ | RRF | %RSD |
|-----------------------------|--------------------|--------------------|--------------------|-------------------|-------------------|-------|------|
| 1,2-Dichloropropane | 0.201 | 0.211 | 0.248 | 0.272 | 0.290 | 0.244 | 15.6 |
| Bromodichloromethane | 0.215 | 0.223 | 0.291 | 0.321 | 0.345 | 0.279 | 20.8 |
| cis-1,3-Dichloropropene | 0.260 | 0.264 | 0.361 | 0.399 | 0.426 | 0.342 | 22.3 |
| 4-Methyl-2-pentanone | 0.045 | 0.048 | 0.059 | 0.062 | 0.063 | 0.055 | 14.8 |
| Toluene | 1.464 | 1.459 | 1.608 | 1.714 | 1.808 | 1.610 | 9.5 |
| trans-1,3-Dichloropropene | 0.168 | 0.173 | 0.243 | 0.270 | 0.291 | 0.229 | 24.4 |
| 1,1,2-Trichloroethane | 0.115 | 0.117 | 0.139 | 0.145 | 0.152 | 0.134 | 12.5 |
| Tetrachloroethene | 0.381 | 0.369 | 0.433 | 0.471 | 0.516 | 0.434 | 14.1 |
| 2-Hexanone | 0.032 | 0.033 | 0.041 | 0.042 | 0.042 | 0.038 | 13.7 |
| Dibromochloromethane | 0.111 | 0.121 | 0.170 | 0.195 | 0.212 | 0.162 | 27.5 |
| 1,2-Dibromoethane | 0.106 | 0.104 | 0.128 | 0.138 | 0.143 | 0.124 | 14.5 |
| Chlorobenzene | 0.973 | 0.953 | 1.048 | 1.101 | 1.155 | 1.046 | 8.1 |
| Ethylbenzene | 1.681 | 1.715 | 1.920 | 2.037 | 2.146 | 1.900 | 10.6 |
| o-Xylene | 0.614 | 0.621 | 0.721 | 0.780 | 0.842 | 0.716 | 13.9 |
| m,p-Xylene | 0.679 | 0.689 | 0.792 | 0.846 | 0.907 | 0.783 | 12.6 |
| Styrene | 0.840 | 0.877 | 1.091 | 1.186 | 1.288 | 1.056 | 18.4 |
| Bromoform | 0.098 | 0.101 | 0.150 | 0.179 | 0.202 | 0.146 | 31.6 |
| Isopropylbenzene | 1.763 | 1.812 | 2.083 | 2.219 | 2.371 | 2.050 | 12.7 |
| 1,1,2,2-Tetrachloroethane | 0.088 | 0.090 | 0.112 | 0.119 | 0.120 | 0.106 | 14.7 |
| 1,3-Dichlorobenzene | 1.667 | 1.623 | 1.817 | 1.908 | 2.005 | 1.804 | 8.9 |
| 1,4-Dichlorobenzene | 1.674 | 1.569 | 1.736 | 1.813 | 1.891 | 1.737 | 7.1 |
| 1,2-Dichlorobenzene | 1.203 | 1.192 | 1.349 | 1.399 | 1.475 | 1.323 | 9.3 |
| 1,2-Dibromo-3-Chloropropane | | 0.011 | 0.019 | 0.021 | 0.022 | 0.018 | 26.5 |
| 1,2,4-Trichlorobenzene | 0.556 | 0.458 | 0.462 | 0.522 | 0.541 | 0.508 | 8.8 |
| 1,2,3-Trichlorobenzene | 0.347 | 0.267 | 0.224 | 0.278 | 0.292 | 0.282 | 15.9 |

6C - FORM VI VOA-3
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 18910
 Instrument ID: D.i Calibration Date(s): 10/16/2013 10/16/2013
 Heated Purge: (Y/N) N Calibration Time(s): 1127 1302
 Purge Volume: 25.0 (mL)
 GC Column: DB-624 ID: 0.20 (mm) Length: 25 (m)

LAB FILE ID: _____ RRF0.5 = DKL02.D RRF1.0 = DKL03.D
 RRF5.0 = DKL04.D RRF10 = DKL05.D RRF20 = DKL06.D

| COMPOUND | RRF <u>0.5</u> | RRF <u>1.0</u> | RRF <u>5.0</u> | RRF <u>10</u> | RRF <u>20</u> | $\overline{\text{RRF}}$ | %RSD |
|------------------------------|----------------|----------------|----------------|---------------|---------------|-------------------------|------|
| Vinyl Chloride-d3 | 0.308 | 0.294 | 0.293 | 0.291 | 0.286 | 0.294 | 2.8 |
| Chloroethane-d5 | 0.261 | 0.258 | 0.238 | 0.228 | 0.207 | 0.238 | 9.3 |
| 1,1-Dichloroethene-d2 | 0.583 | 0.561 | 0.565 | 0.546 | 0.517 | 0.554 | 4.5 |
| 2-Butanone-d5 | 0.018 | 0.014 | 0.016 | 0.015 | 0.013 | 0.015 | 12.0 |
| Chloroform-d | 0.434 | 0.423 | 0.481 | 0.493 | 0.517 | 0.470 | 8.5 |
| 1,2-Dichloroethane-d4 | 0.146 | 0.144 | 0.160 | 0.162 | 0.166 | 0.156 | 6.6 |
| Benzene-d6 | 1.129 | 1.118 | 1.300 | 1.394 | 1.496 | 1.287 | 12.8 |
| 1,2-Dichloropropane-d6 | 0.238 | 0.237 | 0.275 | 0.294 | 0.313 | 0.271 | 12.5 |
| Toluene-d8 | 1.258 | 1.256 | 1.402 | 1.490 | 1.589 | 1.399 | 10.4 |
| trans-1,3-Dichloropropene-d4 | 0.155 | 0.147 | 0.208 | 0.235 | 0.256 | 0.200 | 24.0 |
| 2-Hexanone-d5 | 0.015 | 0.017 | 0.022 | 0.023 | 0.024 | 0.020 | 20.3 |
| 1,1,2,2-Tetrachloroethane-d2 | 0.093 | 0.091 | 0.109 | 0.113 | 0.117 | 0.104 | 11.4 |
| 1,2-Dichlorobenzene-d4 | 0.919 | 0.808 | 0.839 | 0.864 | 0.902 | 0.867 | 5.2 |

Report 1,4-Dioxane-d8 for Low-Medium VOA analysis only

7A - FORM VII VOA-1
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 18910
 Instrument ID: D.i Calibration Date: 10/16/2013 Time: 1820
 Lab File Id: DKL16.D Init. Calib. Date(s): 10/16/2013 10/16/2013
 EPA Sample No. (VSTD####): VSTD005PE Init. Calib. Time(s): 1127 1302
 Heated Purge: (Y/N) N GC Column: DB-624 ID: 0.20 (mm) Length: 25 (m)
 Purge Volume: 25.0 (mL)

| COMPOUND | RRF | RRF5.0 | MIN RRF | %D | MAX %D |
|---------------------------------------|-------|--------|---------|-------|--------|
| Dichlorodifluoromethane | 0.224 | 0.228 | 0.010 | 2.1 | 50.0 |
| Chloromethane | 0.230 | 0.229 | 0.010 | -0.6 | 50.0 |
| Vinyl chloride | 0.270 | 0.281 | 0.010 | 4.0 | 50.0 |
| Bromomethane | 0.223 | 0.224 | 0.010 | 0.3 | 50.0 |
| Chloroethane | 0.173 | 0.179 | 0.010 | 3.7 | 50.0 |
| Trichlorofluoromethane | 0.577 | 0.590 | 0.010 | 2.2 | 50.0 |
| 1,1-Dichloroethene | 0.364 | 0.379 | 0.010 | 4.2 | 50.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.411 | 0.433 | 0.010 | 5.3 | 50.0 |
| Acetone | 0.014 | 0.012 | 0.010 | -12.0 | 50.0 |
| Carbon disulfide | 0.683 | 0.670 | 0.010 | -1.9 | 50.0 |
| Methyl acetate | 0.032 | 0.032 | 0.010 | 0.7 | 50.0 |
| Methylene Chloride | 0.235 | 0.227 | 0.010 | -3.2 | 50.0 |
| trans-1,2-Dichloroethene | 0.309 | 0.308 | 0.010 | -0.2 | 50.0 |
| Methyl tert-butyl ether | 0.262 | 0.261 | 0.010 | -0.6 | 50.0 |
| 1,1-Dichloroethane | 0.459 | 0.479 | 0.010 | 4.3 | 50.0 |
| cis-1,2-Dichloroethene | 0.293 | 0.295 | 0.010 | 0.7 | 50.0 |
| 2-Butanone | 0.020 | 0.020 | 0.010 | 1.0 | 50.0 |
| Bromochloromethane | 0.096 | 0.097 | 0.010 | 1.2 | 50.0 |
| Chloroform | 0.452 | 0.466 | 0.010 | 3.1 | 50.0 |
| 1,1,1-Trichloroethane | 0.590 | 0.602 | 0.010 | 2.2 | 50.0 |
| Cyclohexane | 0.585 | 0.599 | 0.010 | 2.4 | 50.0 |
| Carbon tetrachloride | 0.550 | 0.570 | 0.010 | 3.6 | 50.0 |
| Benzene | 1.335 | 1.361 | 0.010 | 1.9 | 50.0 |
| 1,2-Dichloroethane | 0.202 | 0.205 | 0.010 | 1.8 | 50.0 |
| Trichloroethene | 0.382 | 0.386 | 0.010 | 0.9 | 50.0 |
| Methylcyclohexane | 0.463 | 0.478 | 0.010 | 3.3 | 50.0 |

Report 1,4-Dioxane for Low/Medium VOA analysis only

7B - FORM VII VOA-2
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 18910
 Instrument ID: D.i Calibration Date: 10/16/2013 Time: 1820
 Lab File Id: DKL16.D Init. Calib. Date(s): 10/16/2013 10/16/2013
 EPA Sample No. (VSTD####): VSTD005PE Init. Calib. Time(s): 1127 1302
 Heated Purge: (Y/N) N GC Column: DB-624 ID: 0.20 (mm) Length: 25 (m)
 Purge Volume: 25.0 (mL)

| COMPOUND | RRF | RRF5.0 | MIN RRF | %D | MAX %D |
|-----------------------------|-------|--------|---------|-------|--------|
| 1,2-Dichloropropane | 0.244 | 0.254 | 0.010 | 4.1 | 50.0 |
| Bromodichloromethane | 0.279 | 0.290 | 0.010 | 4.1 | 50.0 |
| cis-1,3-Dichloropropene | 0.342 | 0.359 | 0.010 | 5.0 | 50.0 |
| 4-Methyl-2-pentanone | 0.055 | 0.057 | 0.010 | 2.9 | 50.0 |
| Toluene | 1.610 | 1.656 | 0.010 | 2.8 | 50.0 |
| trans-1,3-Dichloropropene | 0.229 | 0.235 | 0.010 | 2.8 | 50.0 |
| 1,1,2-Trichloroethane | 0.134 | 0.136 | 0.010 | 1.6 | 50.0 |
| Tetrachloroethene | 0.434 | 0.444 | 0.010 | 2.3 | 50.0 |
| 2-Hexanone | 0.038 | 0.040 | 0.010 | 4.0 | 50.0 |
| Dibromochloromethane | 0.162 | 0.166 | 0.010 | 2.7 | 50.0 |
| 1,2-Dibromoethane | 0.124 | 0.127 | 0.010 | 2.7 | 50.0 |
| Chlorobenzene | 1.046 | 1.060 | 0.010 | 1.3 | 50.0 |
| Ethylbenzene | 1.900 | 1.948 | 0.010 | 2.5 | 50.0 |
| o-Xylene | 0.716 | 0.736 | 0.010 | 2.8 | 50.0 |
| m,p-Xylene | 0.783 | 0.808 | 0.010 | 3.3 | 50.0 |
| Styrene | 1.056 | 1.102 | 0.010 | 4.3 | 50.0 |
| Bromoform | 0.146 | 0.141 | 0.010 | -3.2 | 50.0 |
| Isopropylbenzene | 2.050 | 2.124 | 0.010 | 3.6 | 50.0 |
| 1,1,2,2-Tetrachloroethane | 0.106 | 0.110 | 0.010 | 3.9 | 50.0 |
| 1,3-Dichlorobenzene | 1.804 | 1.825 | 0.010 | 1.2 | 50.0 |
| 1,4-Dichlorobenzene | 1.737 | 1.758 | 0.010 | 1.2 | 50.0 |
| 1,2-Dichlorobenzene | 1.323 | 1.347 | 0.010 | 1.8 | 50.0 |
| 1,2-Dibromo-3-Chloropropane | 0.018 | 0.016 | 0.010 | -11.6 | 50.0 |
| 1,2,4-Trichlorobenzene | 0.508 | 0.417 | 0.010 | -17.8 | 50.0 |
| 1,2,3-Trichlorobenzene | 0.282 | 0.186 | 0.010 | -33.9 | 50.0 |

7C - FORM VII VOA-3
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 18910
 Instrument ID: D.i Calibration Date: 10/16/2013 Time: 1820
 Lab File Id: DKL16.D Init. Calib. Date(s): 10/16/2013 10/16/2013
 EPA Sample No. (VSTD####): VSTD005PE Init. Calib. Time(s): 1127 1302
 Heated Purge: (Y/N) N GC Column: DB-624 ID: 0.20 (mm) Length: 25 (m)
 Purge Volume: 25.0 (mL)

| COMPOUND | RRF | RRF5.0 | MIN RRF | %D | MAX %D |
|------------------------------|-------|--------|---------|------|--------|
| Vinyl Chloride-d3 | 0.294 | 0.301 | 0.010 | 2.2 | 50.0 |
| Chloroethane-d5 | 0.238 | 0.247 | 0.010 | 3.5 | 50.0 |
| 1,1-Dichloroethene-d2 | 0.554 | 0.578 | 0.010 | 4.2 | 50.0 |
| 2-Butanone-d5 | 0.015 | 0.015 | 0.010 | -2.6 | 50.0 |
| Chloroform-d | 0.470 | 0.486 | 0.010 | 3.4 | 50.0 |
| 1,2-Dichloroethane-d4 | 0.156 | 0.159 | 0.010 | 2.2 | 50.0 |
| Benzene-d6 | 1.287 | 1.324 | 0.010 | 2.8 | 50.0 |
| 1,2-Dichloropropane-d6 | 0.271 | 0.278 | 0.010 | 2.6 | 50.0 |
| Toluene-d8 | 1.399 | 1.432 | 0.010 | 2.3 | 50.0 |
| trans-1,3-Dichloropropene-d4 | 0.200 | 0.206 | 0.010 | 3.0 | 50.0 |
| 2-Hexanone-d5 | 0.020 | 0.022 | 0.010 | 6.0 | 50.0 |
| 1,1,2,2-Tetrachloroethane-d2 | 0.104 | 0.107 | 0.010 | 2.2 | 50.0 |
| 1,2-Dichlorobenzene-d4 | 0.867 | 0.847 | 0.010 | -2.3 | 50.0 |

Report 1,4-Dioxane-d8 for Low/Medium VOA analysis only

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 18910
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: MB 200-62881/10
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: DKL10.D
 Level: (TRACE/LOW/MED) TRACE Date Received: _____
 % Moisture: not dec. Date Analyzed: 10/16/2013
 GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 25.0 (mL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u> | <u>Q</u> |
|-----------|---------------------------------------|---|----------|
| 75-71-8 | Dichlorodifluoromethane | 0.50 | U |
| 74-87-3 | Chloromethane | 0.50 | U |
| 75-01-4 | Vinyl chloride | 0.50 | U |
| 74-83-9 | Bromomethane | 0.50 | U |
| 75-00-3 | Chloroethane | 0.50 | U |
| 75-69-4 | Trichlorofluoromethane | 0.50 | U |
| 75-35-4 | 1,1-Dichloroethene | 0.50 | U |
| 76-13-1 | 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.50 | U |
| 67-64-1 | Acetone | 5.0 | U |
| 75-15-0 | Carbon disulfide | 0.50 | U |
| 79-20-9 | Methyl acetate | 0.50 | U |
| 75-09-2 | Methylene Chloride | 0.50 | U |
| 156-60-5 | trans-1,2-Dichloroethene | 0.50 | U |
| 1634-04-4 | Methyl tert-butyl ether | 0.50 | U |
| 75-34-3 | 1,1-Dichloroethane | 0.50 | U |
| 156-59-2 | cis-1,2-Dichloroethene | 0.50 | U |
| 78-93-3 | 2-Butanone | 5.0 | U |
| 74-97-5 | Bromochloromethane | 0.50 | U |
| 67-66-3 | Chloroform | 0.50 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 0.50 | U |
| 110-82-7 | Cyclohexane | 0.50 | U |
| 56-23-5 | Carbon tetrachloride | 0.50 | U |
| 71-43-2 | Benzene | 0.50 | U |
| 107-06-2 | 1,2-Dichloroethane | 0.50 | U |

Report 1,4-Dioxane for Low-Medium VOA analysis only

VBLKEP

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 18910
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: MB 200-62881/10
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: DKL10.D
 Level: (TRACE/LOW/MED) TRACE Date Received: _____
 % Moisture: not dec. Date Analyzed: 10/16/2013
 GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 25.0 (mL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/L | Q |
|-------------|-----------------------------|--|---|
| 79-01-6 | Trichloroethene | 0.50 | U |
| 108-87-2 | Methylcyclohexane | 0.50 | U |
| 78-87-5 | 1,2-Dichloropropane | 0.50 | U |
| 75-27-4 | Bromodichloromethane | 0.50 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 0.50 | U |
| 108-10-1 | 4-Methyl-2-pentanone | 5.0 | U |
| 108-88-3 | Toluene | 0.50 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.50 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 0.50 | U |
| 127-18-4 | Tetrachloroethene | 0.50 | U |
| 591-78-6 | 2-Hexanone | 5.0 | U |
| 124-48-1 | Dibromochloromethane | 0.50 | U |
| 106-93-4 | 1,2-Dibromoethane | 0.50 | U |
| 108-90-7 | Chlorobenzene | 0.50 | U |
| 100-41-4 | Ethylbenzene | 0.50 | U |
| 95-47-6 | o-Xylene | 0.50 | U |
| 179601-23-1 | m,p-Xylene | 0.50 | U |
| 100-42-5 | Styrene | 0.50 | U |
| 75-25-2 | Bromoform | 0.50 | U |
| 98-82-8 | Isopropylbenzene | 0.50 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 0.50 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 0.50 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 0.50 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 0.50 | U |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 0.50 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 0.50 | U |
| 87-61-6 | 1,2,3-Trichlorobenzene | 0.50 | U |

1J - FORM I VOA-TIC
 VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKEP

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 18910
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: MB 200-62881/10
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: DKL10.D
 Level: (TRACE or LOW/MED) TRACE Date Received: _____
 % Moisture: not dec. _____ Date Analyzed: 10/16/2013
 GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 CONCENTRATION UNITS: (ug/L or ug/kg) ug/L Purge Volume: 25.0 (mL)

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|----|----------------------|---------------|------|------------|-----|
| 01 | | Unknown | 7.22 | 2.6 | J X |
| 02 | E966796 ¹ | Total Alkanes | N/A | | |

¹EPA-designated Registry Number.

VHBLK01

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 18910
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-18910-5
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: DKL15.D
 Level: (TRACE/LOW/MED) TRACE Date Received: _____
 % Moisture: not dec. Date Analyzed: 10/16/2013
 GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 25.0 (mL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u> | <u>Q</u> |
|-----------|---------------------------------------|---|----------|
| 75-71-8 | Dichlorodifluoromethane | 0.50 | U |
| 74-87-3 | Chloromethane | 0.50 | U |
| 75-01-4 | Vinyl chloride | 0.50 | U |
| 74-83-9 | Bromomethane | 0.50 | U |
| 75-00-3 | Chloroethane | 0.50 | U |
| 75-69-4 | Trichlorofluoromethane | 0.50 | U |
| 75-35-4 | 1,1-Dichloroethene | 0.50 | U |
| 76-13-1 | 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.50 | U |
| 67-64-1 | Acetone | 1.8 | J |
| 75-15-0 | Carbon disulfide | 0.50 | U |
| 79-20-9 | Methyl acetate | 0.50 | U |
| 75-09-2 | Methylene Chloride | 0.50 | U |
| 156-60-5 | trans-1,2-Dichloroethene | 0.50 | U |
| 1634-04-4 | Methyl tert-butyl ether | 0.50 | U |
| 75-34-3 | 1,1-Dichloroethane | 0.50 | U |
| 156-59-2 | cis-1,2-Dichloroethene | 0.50 | U |
| 78-93-3 | 2-Butanone | 5.0 | U |
| 74-97-5 | Bromochloromethane | 0.50 | U |
| 67-66-3 | Chloroform | 0.50 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 0.50 | U |
| 110-82-7 | Cyclohexane | 0.50 | U |
| 56-23-5 | Carbon tetrachloride | 0.50 | U |
| 71-43-2 | Benzene | 0.50 | U |
| 107-06-2 | 1,2-Dichloroethane | 0.50 | U |

Report 1,4-Dioxane for Low-Medium VOA analysis only

VHBLK01

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 18910
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-18910-5
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: DKL15.D
 Level: (TRACE/LOW/MED) TRACE Date Received: _____
 % Moisture: not dec. Date Analyzed: 10/16/2013
 GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 25.0 (mL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/L | Q |
|-------------|-----------------------------|--|---|
| 79-01-6 | Trichloroethene | 0.50 | U |
| 108-87-2 | Methylcyclohexane | 0.50 | U |
| 78-87-5 | 1,2-Dichloropropane | 0.50 | U |
| 75-27-4 | Bromodichloromethane | 0.50 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 0.50 | U |
| 108-10-1 | 4-Methyl-2-pentanone | 5.0 | U |
| 108-88-3 | Toluene | 0.016 | J |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.50 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 0.50 | U |
| 127-18-4 | Tetrachloroethene | 0.50 | U |
| 591-78-6 | 2-Hexanone | 5.0 | U |
| 124-48-1 | Dibromochloromethane | 0.50 | U |
| 106-93-4 | 1,2-Dibromoethane | 0.50 | U |
| 108-90-7 | Chlorobenzene | 0.50 | U |
| 100-41-4 | Ethylbenzene | 0.50 | U |
| 95-47-6 | o-Xylene | 0.50 | U |
| 179601-23-1 | m,p-Xylene | 0.50 | U |
| 100-42-5 | Styrene | 0.50 | U |
| 75-25-2 | Bromoform | 0.50 | U |
| 98-82-8 | Isopropylbenzene | 0.50 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 0.50 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 0.50 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 0.50 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 0.50 | U |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 0.50 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 0.50 | U |
| 87-61-6 | 1,2,3-Trichlorobenzene | 0.50 | U |

1J - FORM I VOA-TIC
 VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VHBLK01

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 18910
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-18910-5
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: DKL15.D
 Level: (TRACE or LOW/MED) TRACE Date Received: _____
 % Moisture: not dec. _____ Date Analyzed: 10/16/2013
 GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 CONCENTRATION UNITS: (ug/L or ug/kg) ug/L Purge Volume: 25.0 (mL)

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|----|----------------------|---------------|------|------------|-------|
| 01 | | Unknown | 7.22 | 2.5 | B X J |
| 02 | E966796 ¹ | Total Alkanes | N/A | | |

¹EPA-designated Registry Number.

ANALYTICAL REPORT

Job Number: 200-20615-1

SDG Number: 20615

Job Description: Ramona (200-20615)

Contract Number: 1E-30401

For:

Argonne National Laboratory

9700 South Cass Avenue

Building 203

Office B-141

Argonne, IL 60439

Attention: Ms. Esther Bowen



Approved for release.
Kirk F Young
Senior Project Manager
2/8/2014 12:52 PM

Kirk F Young, Senior Project Manager
30 Community Drive, South Burlington, VT, 05403
(802)660-1990
kirk.young@testamericainc.com
02/08/2014

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

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CASE NARRATIVE

Client: Argonne National Laboratory

Project: Ramona (200-20615)

Report Number: 200-20615-1

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The samples were received on 01/24/2014. Documentation of the condition of the samples at the time of their receipt and any exception to the laboratory's Sample Acceptance Policy is documented in the Shipping Documentation section of this submittal. The samples, as received, were not acid preserved. On that basis, the laboratory did provide for the analysis of the samples within seven days of sample collection.

SOM01.2 Volatile Organics (Trace Level Water)

A storage blank was prepared for volatile organics analysis, and stored in association with the storage of the samples. That storage blank, identified as VHBLK01, was carried through the holding period with the samples, and analyzed.

Each sample was analyzed without a dilution. Each of the analyses associated with the sample set exhibited an acceptable internal standard performance. There was an acceptable recovery of each deuterated monitoring compound (DMC) in the analysis of the method blank associated with the analytical work, and in the analysis of the storage blank associated with the sample set. The analysis of the samples in this sample set did meet the technical acceptance criteria specific to DMC recoveries; although not all DMC recoveries were within the control range in each analysis. The technical acceptance criteria does provide for the recovery of up to three DMCs to fall outside of the control range in the analysis of field samples. Matrix spike and matrix spike duplicate analyses were not performed on samples in this sample set. Trace concentrations of chloromethane, bromomethane, and methylene chloride were identified in the analysis of the method blank associated with the analytical work. The concentration of each target analyte in that analysis was below the established reporting limit, and the analysis did meet the technical acceptance criteria for a compliant method blank analysis. The analysis of the storage blank associated with the sample set was free of analyte contamination.

Present in the method blank and storage blank analyses was a non-target constituent that represents a compound that is related to the DMC formulation. The fact that the presence of this compound is not within the laboratory's control is at issue. The derived results for that compound have been qualified with an "X" qualifier to reflect the source of the contamination.

The responses for each target analyte met the relative standard deviation criterion in the initial calibration. With the exception of that for bromomethane the response for each target analyte

met the percent difference criterion in the opening/continuing calibration check acquisition, identified as VSTD005DH. In the referenced acquisition, the response for bromomethane was low, relative to the average response in the initial calibration, representing a 38.7 percent difference. Although above the 30.0 percent criterion applied to the compound at issue, the VSTD005DH acquisition did meet the technical acceptance criteria for a compliant opening/continuing calibration check. The response for each target analyte met the 50.0 percent difference criterion in the closing calibration check acquisition.

The primary quantitation mass for methylcyclohexane that is specified in the Statement of Work is mass 83. The laboratory did identify a contribution to mass 83 from 1,2-dichloropropane-d₆, one of the deuterated monitoring compounds (DMCs). The laboratory did change the primary quantitation mass assignment to mass 55 for the quantification of methylcyclohexane.

Manual integration was employed in deriving certain of the analytical results. The values that have been derived from manual integration are qualified on the quantitation reports. Extracted ion current profiles for each manual integration are included in the data package, and further documented at the end of this submittal.

DATA REPORTING QUALIFIERS

Client: Argonne National Laboratory

Job Number: 200-20615-1

Sdg Number: 20615

| Lab Section | Qualifier | Description |
|-------------|-----------|---|
| GC/MS VOA | U | Analyzed for but not detected. |
| | J | Indicates an Estimated Value for TICs |
| | J | Indicates an estimated value. |
| | X | See case narrative notes for explanation of the 'X' flag |
| | * | Surrogate exceeds the control limit |
| | B | The analyte was found in an associated blank, as well as in the sample. |
| | N | This flag indicates the presumptive evidence of a compound. |

From: (402) 416-7255
Travis Kamler
Argonne National Lab
9700 S CASS AVE

Origin ID: ENLA



Ship Date: 23JAN14
ActWgt: 15.0 LB
CAD: 104734835/INET3490
Dims: 14 X 9 X 11 IN

LEMONT, IL 60439

Delivery Address Bar Code



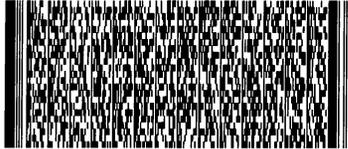
SHIP TO: (802) 660-1990
Kirk Young
Test America
30 COMMUNITY DR
STE 11
SOUTH BURLINGTON, VT 05403

BILL SENDER

Ref # 8A727-G1-167
Invoice #
PO # Ramona
Dept #

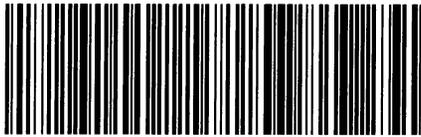
FRI - 24 JAN 10:30A
PRIORITY OVERNIGHT

TRK# 7977 0931 9130
0201



XH BTVA

05403
VT-US
BTV



523106E0F220

After printing this label:

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2. Fold the printed page along the horizontal line.
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Shipping and Receiving Documents

Login Sample Receipt Checklist

Client: Argonne National Laboratory

Job Number: 200-20615-1

SDG Number: 20615

Login Number: 20615

List Source: TestAmerica Burlington

List Number: 1

Creator: Gagne, Eric M

| Question | Answer | Comment |
|--|--------|---|
| Radioactivity wasn't checked or is <= background as measured by a survey meter. | N/A | Lab does not accept radioactive samples. |
| The cooler's custody seal, if present, is intact. | True | NO NUMBERS |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | 3.5°C. IR GUN ID 181. CF -0.1 |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time. | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | Sample volumes were received unpreserved. |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

Sample Login Acknowledgement

Job 200-20615-1

| | | | |
|----------------------------------|--------------------|-------------------|-----------------------------|
| Client Job Description: | Ramona (200-20615) | Report To: | Argonne National Laboratory |
| Purchase Order #: | 1E-30401 | | Jorge Alvarado |
| Work Order #: | 1E-30401 | | 9700 South Cass Avenue |
| Project Manager: | Kirk F Young | | Building 203 |
| Job Due Date: | 2/7/2014 | | Office B-141 |
| Job TAT: | 14 Days | | Argonne, IL 60439 |
| Max Deliverable Level: | IV | Bill To: | Argonne National Laboratory |
| | | | Accounts Payable |
| Earliest Deliverable Due: | 2/7/2014 | | Chief Financial Offices |
| | | | 9700 S. Cass Ave. |
| | | | Building 201 |
| | | | Argonne, IL 60439 |

Login 200-20615

| | | | |
|----------------------------|--------------------------|------------------------------------|------|
| Sample Receipt: | 1/24/2014 10:20:00 AM | Number of Coolers: | 1 |
| Method of Delivery: | FedEx Priority Overnight | Cooler Temperature(s) (C°): | 3.5; |

| Lab Sample # | Client Sample ID | Date Sampled | Matrix | Rpt Basis | Dry / Wet ** |
|--------------------|--|------------------------------|--------------|-----------|--------------|
| Method | Method Description / Work Location | | | | |
| 200-20615-1 | RAMW9-W-36374 | 1/23/2014 11:20:00 AM | Water | | |
| SOM01.2_Vol_Tr | SOM01.2 Trace Volatile Organics / In-Lab | | | Total | Wet |
| 200-20615-2 | RAMW10-W-36375 | 1/23/2014 11:40:00 AM | Water | | |
| SOM01.2_Vol_Tr | SOM01.2 Trace Volatile Organics / In-Lab | | | Total | Wet |
| 200-20615-3 | RAQCTB-W-36376 | 1/23/2014 12:00:00 PM | Water | | |
| SOM01.2_Vol_Tr | SOM01.2 Trace Volatile Organics / In-Lab | | | Total | Wet |
| 200-20615-4 | VHBLK01 | 1/24/2014 12:50:00 PM | Water | | |
| SOM01.2_Vol_Tr | SOM01.2 Trace Volatile Organics / In-Lab | | | Total | Wet |

* Method on-hold

** Wet/Dry indicates whether the reported results will be corrected for moisture content based on sample Wet weight or Dry weight.

METHODOLOGY SUMMARY

Laboratory: TestAmerica Laboratories

Project No:

Location: South Burlington, Vermont

SDG No: 20615

VOA

Volatile Organics Trace - USEPA CLP SOM01.2

2A - FORM II VOA-1
 WATER VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: TESTAMERICA BURLINGTON

Contract: 8E-00302

Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____

SDG No.: 20615

Level: (TRACE or LOW) TRACE

| | EPA SAMPLE NO. | VDMC1 (VCL) # | VDMC2 (CLA) # | VDMC3 (DCE) # | VDMC4 (BUT) # | VDMC5 (CLF) # | VDMC6 (DCA) # | VDMC7 (BEN) # |
|----|-------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| 01 | VBLKDH | 91 | 96 | 81 | 107 | 103 | 109 | 103 |
| 02 | RAMW9-W-36374 | 95 | 96 | 82 | 143 | 98 | 105 | 101 |
| 03 | RAMW10-W-36375 | 92 | 96 | 80 | 142 | 101 | 110 | 102 |
| 04 | RAQCTB-W-36376 | 89 | 93 | 79 | 143 | 99 | 107 | 101 |
| 05 | VHBLK01 | 90 | 95 | 80 | 108 | 101 | 110 | 101 |

VDMC1 (VCL) = Vinyl Chloride-d3
 VDMC2 (CLA) = Chloroethane-d5
 VDMC3 (DCE) = 1,1-Dichloroethene-d2
 VDMC4 (BUT) = 2-Butanone-d5
 VDMC5 (CLF) = Chloroform-d
 VDMC6 (DCA) = 1,2-Dichloroethane-d4
 VDMC7 (BEN) = Benzene-d6

QC LIMITS

(65-131)
 (71-131)
 (55-104)
 (49-155)
 (78-121)
 (78-129)
 (77-124)

Column to be used to flag recovery values
 * Values outside of contract required QC limits

2B - FORM II VOA-2
 WATER VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: TESTAMERICA BURLINGTON

Contract: 8E-00302

Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____

SDG No.: 20615

Level: (TRACE or LOW) TRACE

| | EPA SAMPLE NO. | VDMC8 (DPA) # | VDMC9 (TOL) # | VDMC10 (TDP) # | VDMC11 (HEX) # | VDMC12 (TCA) # | VDMC13 (DCZ) # | OTHER | TOT OUT |
|----|-------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-------|------------|
| 01 | VBLKDH | 91 | 102 | 101 | 104 | 100 | 99 | | 0 |
| 02 | RAMW9-W-36374 | 89 | 102 | 97 | 146 * | 95 | 96 | | 1 |
| 03 | RAMW10-W-36375 | 91 | 102 | 102 | 147 * | 99 | 98 | | 1 |
| 04 | RAQCTB-W-36376 | 90 | 101 | 100 | 144 * | 98 | 98 | | 1 |
| 05 | VHBLK01 | 91 | 101 | 100 | 105 | 100 | 100 | | 0 |

| | | QC LIMITS |
|--------|--------------------------------------|-----------|
| VDMC8 | (DPA) = 1,2-Dichloropropane-d6 | (79-124) |
| VDMC9 | (TOL) = Toluene-d8 | (77-121) |
| VDMC10 | (TDP) = trans-1,3-Dichloropropene-d4 | (73-121) |
| VDMC11 | (HEX) = 2-Hexanone-d5 | (28-135) |
| VDMC12 | (TCA) = 1,1,2,2-Tetrachloroethane-d2 | (73-125) |
| VDMC13 | (DCZ) = 1,2-Dichlorobenzene-d4 | (80-131) |

Column to be used to flag recovery values
 * Values outside of contract required QC limits

Report 1,4-Dioxane-d8 for Low-Medium VOA analysis only

4A - FORM IV VOA
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKDH

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 20615
 Lab File ID: DLEC05.D Lab Sample ID: MB 200-67772/5
 Instrument ID: D.i
 Matrix: (SOIL/SED/WATER) Water Date Analyzed: 01/28/2014
 Level: (TRACE or LOW/MED) TRACE Time Analyzed: 1103
 GC Column: DB-624 ID: 0.20 (mm) Heated Purge: (Y/N) N

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | TIME ANALYZED |
|----|--------------------|------------------|----------------|------------------|
| 01 | RAMW9-W-3637 4 | 200-20615-1 | DLEC06.D | 1128 |
| 02 | RAMW10-W-363 75 | 200-20615-2 | DLEC07.D | 1152 |
| 03 | RAQCTB-W-363 76 | 200-20615-3 | DLEC08.D | 1217 |
| 04 | VHBLK01 | 200-20615-4 | DLEC09.D | 1241 |

COMMENTS: _____

5A - FORM V VOA
 VOLATILE ORGANICS INSTRUMENT
 PERFORMANCE CHECK
 BROMOFLUOROBENZENE (BFB)

EPA SAMPLE NO.

BFBDE

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 20615
 Lab File Id: DLE01.D BFB Injection Date: 01/20/2014
 Instrument Id: D.i BFB Injection Time: 1159
 GC Column: DB-624 ID: 0.20 (mm)

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|-----|------------------------------------|----------------------|
| 50 | 15.0 - 40.0% of mass 95 | 18.5 |
| 75 | 30.0 - 80.0% of mass 95 | 48.6 |
| 95 | Base peak, 100% relative abundance | 100 |
| 96 | 5.0 - 9.0% of mass 95 | 6.6 |
| 173 | Less than 2.0% of mass 174 | 0.6 (0.6)1 |
| 174 | 50.0 - 120% of mass 95 | 95.3 |
| 175 | 5.0 - 9.0% of mass 174 | 6.7 (7.1)1 |
| 176 | 95.0 - 101% of mass 174 | 94.1 (98.8)1 |
| 177 | 5.0 - 9.0% of mass 176 | 6.1 (6.5)2 |

1 - Value is %mass 174

2 - Value is %mass 176

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|----|----------------|------------------|-------------|---------------|---------------|
| 01 | VSTD0.5DE | IC 200-67403/2 | DLE02.D | 01/20/2014 | 1211 |
| 02 | VSTD001DE | IC 200-67403/3 | DLE03.D | 01/20/2014 | 1235 |
| 03 | VSTD005DE | ICIS 200-67403/4 | DLE04.D | 01/20/2014 | 1300 |
| 04 | VSTD010DE | IC 200-67403/5 | DLE05.D | 01/20/2014 | 1325 |
| 05 | VSTD020DE | IC 200-67403/6 | DLE06.D | 01/20/2014 | 1349 |

5A - FORM V VOA
VOLATILE ORGANICS INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

EPA SAMPLE NO.

BFBDH

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 20615
Lab File Id: DLEC01.D BFB Injection Date: 01/28/2014
Instrument Id: D.i BFB Injection Time: 0929
GC Column: DB-624 ID: 0.20 (mm)

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|-----|------------------------------------|----------------------|
| 50 | 15.0 - 40.0% of mass 95 | 19.3 |
| 75 | 30.0 - 80.0% of mass 95 | 49.8 |
| 95 | Base peak, 100% relative abundance | 100 |
| 96 | 5.0 - 9.0% of mass 95 | 6.8 |
| 173 | Less than 2.0% of mass 174 | 0.5 (0.6)1 |
| 174 | 50.0 - 120% of mass 95 | 86.1 |
| 175 | 5.0 - 9.0% of mass 174 | 6.0 (7.0)1 |
| 176 | 95.0 - 101% of mass 174 | 83.6 (97.1)1 |
| 177 | 5.0 - 9.0% of mass 176 | 5.4 (6.5)2 |

1 - Value is %mass 174

2 - Value is %mass 176

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|----|--------------------|-------------------|-------------|---------------|---------------|
| 01 | VSTD005DH | CCVIS 200-67772/3 | DLEC03.D | 01/28/2014 | 1014 |
| 02 | VBLKDH | MB 200-67772/5 | DLEC05.D | 01/28/2014 | 1103 |
| 03 | RAMW9-W-36 374 | 200-20615-1 | DLEC06.D | 01/28/2014 | 1128 |
| 04 | RAMW10-W-3 6375 | 200-20615-2 | DLEC07.D | 01/28/2014 | 1152 |
| 05 | RAQCTB-W-3 6376 | 200-20615-3 | DLEC08.D | 01/28/2014 | 1217 |
| 06 | VHBLK01 | 200-20615-4 | DLEC09.D | 01/28/2014 | 1241 |
| 07 | VSTD005HD | CCVC 200-67772/11 | DLEC11.D | 01/28/2014 | 1420 |

8A - FORM VIII VOA
VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 20615
 GC Column: DB-624 ID: 0.20 (mm) Init. Calib. Date(s): 01/20/2014 01/20/2014
 EPA Sample No. (VSTD#####): VSTD005DH Date Analyzed: 01/28/2014
 Lab File ID (Standard): DLEC03.D Time Analyzed: 1014
 Instrument ID: D.i Heated Purge: (Y/N) N

| | IS1 (CBZ) | | IS2 (DFB) | | IS3 (DCB) | | | | | | |
|-------------------|-----------|---|-----------|---|-----------|---|------|---|--------|--|-------|
| | AREA | # | RT | # | AREA | # | RT | # | | | |
| 12 HOUR STD | 298453 | | 9.52 | | 367111 | | 6.14 | | 148458 | | 12.34 |
| UPPER LIMIT | 417834 | | 9.85 | | 513955 | | 6.47 | | 207841 | | 12.67 |
| LOWER LIMIT | 179072 | | 9.19 | | 220267 | | 5.81 | | 89075 | | 12.01 |
| EPA SAMPLE NO. | | | | | | | | | | | |
| 01 VBLKDH | 301097 | | 9.52 | | 367874 | | 6.14 | | 142447 | | 12.34 |
| 02 RAMW9-W-36374 | 271164 | | 9.52 | | 335890 | | 6.15 | | 130089 | | 12.34 |
| 03 RAMW10-W-36375 | 284299 | | 9.52 | | 348152 | | 6.14 | | 136991 | | 12.34 |
| 04 RAQCTB-W-36376 | 289768 | | 9.52 | | 357249 | | 6.14 | | 138399 | | 12.34 |
| 05 VHBLK01 | 286464 | | 9.52 | | 347941 | | 6.14 | | 135468 | | 12.34 |

IS1 (CBZ) = Chlorobenzene-d5
 IS2 (DFB) = 1,4-Difluorobenzene
 IS3 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = 140% (Trace Volatiles) of internal standard area
 AREA LOWER LIMIT = 60% (Trace Volatiles) of internal standard area
 RT UPPER LIMIT = + 0.33 (Trace Volatiles) minutes of internal standard RT
 RT LOWER LIMIT = - 0.33 (Trace Volatiles) minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 20615
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-20615-2
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: DLEC07.D
 Level: (TRACE/LOW/MED) TRACE Date Received: 01/24/2014
 % Moisture: not dec. Date Analyzed: 01/28/2014
 GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 25.0 (mL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u> | <u>Q</u> |
|-----------|---------------------------------------|---|----------|
| 75-71-8 | Dichlorodifluoromethane | 0.50 | U |
| 74-87-3 | Chloromethane | 0.50 | U |
| 75-01-4 | Vinyl chloride | 0.50 | U |
| 74-83-9 | Bromomethane | 0.14 | J B |
| 75-00-3 | Chloroethane | 0.50 | U |
| 75-69-4 | Trichlorofluoromethane | 0.50 | U |
| 75-35-4 | 1,1-Dichloroethene | 0.50 | U |
| 76-13-1 | 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.50 | U |
| 67-64-1 | Acetone | 2.7 | J |
| 75-15-0 | Carbon disulfide | 0.50 | U |
| 79-20-9 | Methyl acetate | 0.50 | U |
| 75-09-2 | Methylene Chloride | 0.50 | U |
| 156-60-5 | trans-1,2-Dichloroethene | 0.50 | U |
| 1634-04-4 | Methyl tert-butyl ether | 0.50 | U |
| 75-34-3 | 1,1-Dichloroethane | 0.50 | U |
| 156-59-2 | cis-1,2-Dichloroethene | 0.50 | U |
| 78-93-3 | 2-Butanone | 3.9 | J |
| 74-97-5 | Bromochloromethane | 0.50 | U |
| 67-66-3 | Chloroform | 0.50 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 0.50 | U |
| 110-82-7 | Cyclohexane | 0.50 | U |
| 56-23-5 | Carbon tetrachloride | 0.50 | U |
| 71-43-2 | Benzene | 0.50 | U |
| 107-06-2 | 1,2-Dichloroethane | 0.50 | U |

Report 1,4-Dioxane for Low-Medium VOA analysis only

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 20615
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-20615-2
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: DLEC07.D
 Level: (TRACE/LOW/MED) TRACE Date Received: 01/24/2014
 % Moisture: not dec. Date Analyzed: 01/28/2014
 GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 25.0 (mL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/L | Q |
|-------------|-----------------------------|--|---|
| 79-01-6 | Trichloroethene | 0.50 | U |
| 108-87-2 | Methylcyclohexane | 0.50 | U |
| 78-87-5 | 1,2-Dichloropropane | 0.50 | U |
| 75-27-4 | Bromodichloromethane | 0.50 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 0.50 | U |
| 108-10-1 | 4-Methyl-2-pentanone | 5.0 | U |
| 108-88-3 | Toluene | 0.070 | J |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.50 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 0.50 | U |
| 127-18-4 | Tetrachloroethene | 0.50 | U |
| 591-78-6 | 2-Hexanone | 5.0 | U |
| 124-48-1 | Dibromochloromethane | 0.50 | U |
| 106-93-4 | 1,2-Dibromoethane | 0.50 | U |
| 108-90-7 | Chlorobenzene | 0.50 | U |
| 100-41-4 | Ethylbenzene | 0.0094 | J |
| 95-47-6 | o-Xylene | 0.50 | U |
| 179601-23-1 | m,p-Xylene | 0.024 | J |
| 100-42-5 | Styrene | 0.50 | U |
| 75-25-2 | Bromoform | 0.50 | U |
| 98-82-8 | Isopropylbenzene | 0.50 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 0.50 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 0.50 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 0.50 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 0.50 | U |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 0.50 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 0.50 | U |
| 87-61-6 | 1,2,3-Trichlorobenzene | 0.50 | U |

1J - FORM I VOA-TIC
 VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RAMW10-W-36375

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 20615
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-20615-2
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: DLEC07.D
 Level: (TRACE or LOW/MED) TRACE Date Received: 01/24/2014
 % Moisture: not dec. _____ Date Analyzed: 01/28/2014
 GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 CONCENTRATION UNITS: (ug/L or ug/kg) ug/L Purge Volume: 25.0 (mL)

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|----|----------------------|--------------------|------|------------|-------|
| 01 | 109-99-9 | Furan, tetrahydro- | 5.12 | 1.1 | J N |
| 02 | | Unknown | 7.48 | 3.3 | B X J |
| 03 | E966796 ¹ | Total Alkanes | N/A | | |

¹EPA-designated Registry Number.

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 20615
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-20615-1
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: DLEC06.D
 Level: (TRACE/LOW/MED) TRACE Date Received: 01/24/2014
 % Moisture: not dec. Date Analyzed: 01/28/2014
 GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 25.0 (mL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u> | <u>Q</u> |
|-----------|---------------------------------------|---|----------|
| 75-71-8 | Dichlorodifluoromethane | 0.50 | U |
| 74-87-3 | Chloromethane | 0.50 | U |
| 75-01-4 | Vinyl chloride | 0.50 | U |
| 74-83-9 | Bromomethane | 0.15 | J B |
| 75-00-3 | Chloroethane | 0.50 | U |
| 75-69-4 | Trichlorofluoromethane | 0.50 | U |
| 75-35-4 | 1,1-Dichloroethene | 0.50 | U |
| 76-13-1 | 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.50 | U |
| 67-64-1 | Acetone | 2.3 | J |
| 75-15-0 | Carbon disulfide | 0.50 | U |
| 79-20-9 | Methyl acetate | 0.50 | U |
| 75-09-2 | Methylene Chloride | 0.50 | U |
| 156-60-5 | trans-1,2-Dichloroethene | 0.50 | U |
| 1634-04-4 | Methyl tert-butyl ether | 0.50 | U |
| 75-34-3 | 1,1-Dichloroethane | 0.50 | U |
| 156-59-2 | cis-1,2-Dichloroethene | 0.50 | U |
| 78-93-3 | 2-Butanone | 5.3 | |
| 74-97-5 | Bromochloromethane | 0.50 | U |
| 67-66-3 | Chloroform | 0.31 | J |
| 71-55-6 | 1,1,1-Trichloroethane | 0.50 | U |
| 110-82-7 | Cyclohexane | 0.50 | U |
| 56-23-5 | Carbon tetrachloride | 0.64 | |
| 71-43-2 | Benzene | 0.023 | J |
| 107-06-2 | 1,2-Dichloroethane | 0.50 | U |

Report 1,4-Dioxane for Low-Medium VOA analysis only

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 20615
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-20615-1
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: DLEC06.D
 Level: (TRACE/LOW/MED) TRACE Date Received: 01/24/2014
 % Moisture: not dec. Date Analyzed: 01/28/2014
 GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 25.0 (mL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/L | Q |
|-------------|-----------------------------|--|---|
| 79-01-6 | Trichloroethene | 0.50 | U |
| 108-87-2 | Methylcyclohexane | 0.50 | U |
| 78-87-5 | 1,2-Dichloropropane | 0.50 | U |
| 75-27-4 | Bromodichloromethane | 0.50 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 0.50 | U |
| 108-10-1 | 4-Methyl-2-pentanone | 5.0 | U |
| 108-88-3 | Toluene | 0.032 | J |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.50 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 0.50 | U |
| 127-18-4 | Tetrachloroethene | 0.50 | U |
| 591-78-6 | 2-Hexanone | 5.0 | U |
| 124-48-1 | Dibromochloromethane | 0.50 | U |
| 106-93-4 | 1,2-Dibromoethane | 0.50 | U |
| 108-90-7 | Chlorobenzene | 0.50 | U |
| 100-41-4 | Ethylbenzene | 0.50 | U |
| 95-47-6 | o-Xylene | 0.50 | U |
| 179601-23-1 | m,p-Xylene | 0.50 | U |
| 100-42-5 | Styrene | 0.50 | U |
| 75-25-2 | Bromoform | 0.50 | U |
| 98-82-8 | Isopropylbenzene | 0.50 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 0.50 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 0.50 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 0.50 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 0.50 | U |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 0.50 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 0.50 | U |
| 87-61-6 | 1,2,3-Trichlorobenzene | 0.50 | U |

1J - FORM I VOA-TIC
 VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RAMW9-W-36374

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 20615
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-20615-1
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: DLEC06.D
 Level: (TRACE or LOW/MED) TRACE Date Received: 01/24/2014
 % Moisture: not dec. Date Analyzed: 01/28/2014
 GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 CONCENTRATION UNITS: (ug/L or ug/kg) ug/L Purge Volume: 25.0 (mL)

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|----|----------------------|---------------------------------|-------|------------|-------|
| 01 | 109-99-9 | Furan, tetrahydro- | 5.12 | 0.92 | J N |
| 02 | | Unknown | 7.48 | 3.1 | B X J |
| 03 | 541-05-9 | Cyclotrisiloxane, hexamethyl- | 8.39 | 1.1 | J N |
| 04 | 556-67-2 | Cyclotetrasiloxane, octamethyl- | 11.21 | 1.5 | J N |
| 05 | E966796 ¹ | Total Alkanes | N/A | | |

¹EPA-designated Registry Number.

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 20615
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-20615-3
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: DLEC08.D
 Level: (TRACE/LOW/MED) TRACE Date Received: 01/24/2014
 % Moisture: not dec. Date Analyzed: 01/28/2014
 GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 25.0 (mL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/L | Q |
|-----------|---------------------------------------|--|---|
| 75-71-8 | Dichlorodifluoromethane | 0.50 | U |
| 74-87-3 | Chloromethane | 0.50 | U |
| 75-01-4 | Vinyl chloride | 0.50 | U |
| 74-83-9 | Bromomethane | 0.50 | U |
| 75-00-3 | Chloroethane | 0.50 | U |
| 75-69-4 | Trichlorofluoromethane | 0.50 | U |
| 75-35-4 | 1,1-Dichloroethene | 0.50 | U |
| 76-13-1 | 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.50 | U |
| 67-64-1 | Acetone | 5.0 | U |
| 75-15-0 | Carbon disulfide | 0.50 | U |
| 79-20-9 | Methyl acetate | 0.50 | U |
| 75-09-2 | Methylene Chloride | 0.50 | U |
| 156-60-5 | trans-1,2-Dichloroethene | 0.50 | U |
| 1634-04-4 | Methyl tert-butyl ether | 0.50 | U |
| 75-34-3 | 1,1-Dichloroethane | 0.50 | U |
| 156-59-2 | cis-1,2-Dichloroethene | 0.50 | U |
| 78-93-3 | 2-Butanone | 5.0 | U |
| 74-97-5 | Bromochloromethane | 0.50 | U |
| 67-66-3 | Chloroform | 0.27 | J |
| 71-55-6 | 1,1,1-Trichloroethane | 0.50 | U |
| 110-82-7 | Cyclohexane | 0.50 | U |
| 56-23-5 | Carbon tetrachloride | 0.50 | U |
| 71-43-2 | Benzene | 0.50 | U |
| 107-06-2 | 1,2-Dichloroethane | 0.50 | U |

Report 1,4-Dioxane for Low-Medium VOA analysis only

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 20615
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-20615-3
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: DLEC08.D
 Level: (TRACE/LOW/MED) TRACE Date Received: 01/24/2014
 % Moisture: not dec. Date Analyzed: 01/28/2014
 GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 25.0 (mL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/L | Q |
|-------------|-----------------------------|--|---|
| 79-01-6 | Trichloroethene | 0.50 | U |
| 108-87-2 | Methylcyclohexane | 0.50 | U |
| 78-87-5 | 1,2-Dichloropropane | 0.50 | U |
| 75-27-4 | Bromodichloromethane | 0.50 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 0.50 | U |
| 108-10-1 | 4-Methyl-2-pentanone | 5.0 | U |
| 108-88-3 | Toluene | 0.015 | J |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.50 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 0.50 | U |
| 127-18-4 | Tetrachloroethene | 0.50 | U |
| 591-78-6 | 2-Hexanone | 5.0 | U |
| 124-48-1 | Dibromochloromethane | 0.50 | U |
| 106-93-4 | 1,2-Dibromoethane | 0.50 | U |
| 108-90-7 | Chlorobenzene | 0.50 | U |
| 100-41-4 | Ethylbenzene | 0.50 | U |
| 95-47-6 | o-Xylene | 0.50 | U |
| 179601-23-1 | m,p-Xylene | 0.50 | U |
| 100-42-5 | Styrene | 0.50 | U |
| 75-25-2 | Bromoform | 0.50 | U |
| 98-82-8 | Isopropylbenzene | 0.50 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 0.50 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 0.50 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 0.50 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 0.50 | U |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 0.50 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 0.50 | U |
| 87-61-6 | 1,2,3-Trichlorobenzene | 0.50 | U |

1J - FORM I VOA-TIC
 VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RAQCTB-W-36376

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 20615
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-20615-3
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: DLEC08.D
 Level: (TRACE or LOW/MED) TRACE Date Received: 01/24/2014
 % Moisture: not dec. Date Analyzed: 01/28/2014
 GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 CONCENTRATION UNITS: (ug/L or ug/kg) ug/L Purge Volume: 25.0 (mL)

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|----|----------------------|---------------|------|------------|-------|
| 01 | | Unknown | 7.48 | 3.3 | B X J |
| 02 | E966796 ¹ | Total Alkanes | N/A | | |

¹EPA-designated Registry Number.

6A - FORM VI VOA-1
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 20615
 Instrument ID: D.i Calibration Date(s): 01/20/2014 01/20/2014
 Heated Purge: (Y/N) N Calibration Time(s): 1211 1349
 Purge Volume: 25.0 (mL)
 GC Column: DB-624 ID: 0.20 (mm) Length: 25 (m)

LAB FILE ID: _____ RRF_{0.5} = DLE02.D RRF_{1.0} = DLE03.D
 RRF_{5.0} = DLE04.D RRF₁₀ = DLE05.D RRF₂₀ = DLE06.D

| COMPOUND | RRF _{0.5} | RRF _{1.0} | RRF _{5.0} | RRF ₁₀ | RRF ₂₀ | RRF | %RSD |
|---|--------------------|--------------------|--------------------|-------------------|-------------------|-------|------|
| Dichlorodifluoromethane | 0.342 | 0.363 | 0.349 | 0.356 | 0.358 | 0.354 | 2.3 |
| Chloromethane | 0.343 | 0.370 | 0.336 | 0.352 | 0.354 | 0.351 | 3.6 |
| Vinyl chloride | 0.418 | 0.422 | 0.397 | 0.407 | 0.410 | 0.411 | 2.3 |
| Bromomethane | 0.143 | 0.096 | 0.098 | 0.117 | 0.134 | 0.118 | 17.8 |
| Chloroethane | 0.298 | 0.266 | 0.254 | 0.250 | 0.229 | 0.259 | 9.7 |
| Trichlorofluoromethane | 0.569 | 0.551 | 0.538 | 0.542 | 0.562 | 0.552 | 2.4 |
| 1,1-Dichloroethene | 0.355 | 0.353 | 0.342 | 0.348 | 0.361 | 0.352 | 2.0 |
| 1,1,2-Trichloro- 1,2,2-trifluoroethane | 0.384 | 0.379 | 0.368 | 0.377 | 0.387 | 0.379 | 2.0 |
| Acetone | 0.030 | 0.028 | 0.021 | 0.020 | 0.021 | 0.024 | 19.4 |
| Carbon disulfide | 0.839 | 0.810 | 0.796 | 0.863 | 0.858 | 0.833 | 3.5 |
| Methyl acetate | 0.065 | 0.067 | 0.056 | 0.055 | 0.057 | 0.060 | 9.5 |
| Methylene Chloride | 0.269 | 0.264 | 0.234 | 0.238 | 0.244 | 0.250 | 6.3 |
| trans-1,2-Dichloroethene | 0.315 | 0.311 | 0.305 | 0.312 | 0.328 | 0.314 | 2.7 |
| Methyl tert-butyl ether | 0.345 | 0.378 | 0.369 | 0.376 | 0.393 | 0.372 | 4.7 |
| 1,1-Dichloroethane | 0.573 | 0.564 | 0.539 | 0.549 | 0.567 | 0.559 | 2.5 |
| cis-1,2-Dichloroethene | 0.300 | 0.304 | 0.294 | 0.303 | 0.317 | 0.304 | 2.7 |
| 2-Butanone | 0.035 | 0.036 | 0.034 | 0.034 | 0.036 | 0.035 | 2.6 |
| Bromochloromethane | 0.092 | 0.090 | 0.092 | 0.092 | 0.098 | 0.092 | 3.5 |
| Chloroform | 0.518 | 0.510 | 0.478 | 0.490 | 0.504 | 0.500 | 3.2 |
| 1,1,1-Trichloroethane | 0.613 | 0.606 | 0.609 | 0.627 | 0.648 | 0.620 | 2.8 |
| Cyclohexane | 0.799 | 0.783 | 0.762 | 0.782 | 0.792 | 0.783 | 1.8 |
| Carbon tetrachloride | 0.530 | 0.530 | 0.549 | 0.567 | 0.592 | 0.554 | 4.8 |
| Benzene | 1.608 | 1.581 | 1.595 | 1.636 | 1.675 | 1.619 | 2.3 |
| 1,2-Dichloroethane | 0.212 | 0.240 | 0.228 | 0.226 | 0.231 | 0.227 | 4.5 |
| Trichloroethene | 0.410 | 0.396 | 0.401 | 0.411 | 0.427 | 0.409 | 2.9 |
| Methylcyclohexane | 0.601 | 0.612 | 0.618 | 0.629 | 0.644 | 0.621 | 2.7 |

Report 1,4-Dioxane for Low-Medium VOA analysis only

6B - FORM VI VOA-2
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 20615
 Instrument ID: D.i Calibration Date(s): 01/20/2014 01/20/2014
 Heated Purge: (Y/N) N Calibration Time(s): 1211 1349
 Purge Volume: 25.0 (mL)
 GC Column: DB-624 ID: 0.20 (mm) Length: 25 (m)

LAB FILE ID: _____ RRF_{0.5} = DLE02.D RRF_{1.0} = DLE03.D
 RRF_{5.0} = DLE04.D RRF₁₀ = DLE05.D RRF₂₀ = DLE06.D

| COMPOUND | RRF _{0.5} | RRF _{1.0} | RRF _{5.0} | RRF ₁₀ | RRF ₂₀ | RRF | %RSD |
|-----------------------------|--------------------|--------------------|--------------------|-------------------|-------------------|-------|------|
| 1,2-Dichloropropane | 0.301 | 0.327 | 0.319 | 0.327 | 0.335 | 0.322 | 4.1 |
| Bromodichloromethane | 0.304 | 0.322 | 0.340 | 0.350 | 0.369 | 0.337 | 7.5 |
| cis-1,3-Dichloropropene | 0.412 | 0.441 | 0.462 | 0.477 | 0.495 | 0.458 | 7.0 |
| 4-Methyl-2-pentanone | 0.093 | 0.100 | 0.101 | 0.102 | 0.104 | 0.100 | 4.2 |
| Toluene | 1.688 | 1.709 | 1.735 | 1.803 | 1.868 | 1.761 | 4.2 |
| trans-1,3-Dichloropropene | 0.267 | 0.291 | 0.313 | 0.326 | 0.343 | 0.308 | 9.7 |
| 1,1,2-Trichloroethane | 0.166 | 0.167 | 0.152 | 0.157 | 0.162 | 0.160 | 3.9 |
| Tetrachloroethene | 0.390 | 0.394 | 0.390 | 0.407 | 0.430 | 0.402 | 4.2 |
| 2-Hexanone | 0.060 | 0.070 | 0.069 | 0.069 | 0.071 | 0.068 | 6.3 |
| Dibromochloromethane | 0.139 | 0.161 | 0.177 | 0.188 | 0.206 | 0.174 | 14.7 |
| 1,2-Dibromoethane | 0.116 | 0.125 | 0.134 | 0.136 | 0.143 | 0.131 | 8.1 |
| Chlorobenzene | 1.070 | 1.050 | 1.032 | 1.065 | 1.106 | 1.064 | 2.6 |
| Ethylbenzene | 1.981 | 2.003 | 2.015 | 2.109 | 2.204 | 2.062 | 4.5 |
| o-Xylene | 0.686 | 0.706 | 0.730 | 0.774 | 0.828 | 0.745 | 7.7 |
| m,p-Xylene | 0.782 | 0.788 | 0.815 | 0.851 | 0.901 | 0.827 | 6.0 |
| Styrene | 0.855 | 0.940 | 1.040 | 1.084 | 1.213 | 1.026 | 13.4 |
| Bromoform | 0.113 | 0.134 | 0.148 | 0.154 | 0.179 | 0.146 | 16.8 |
| Isopropylbenzene | 2.027 | 2.099 | 2.142 | 2.259 | 2.398 | 2.185 | 6.7 |
| 1,1,2,2-Tetrachloroethane | 0.129 | 0.141 | 0.144 | 0.147 | 0.157 | 0.143 | 7.0 |
| 1,3-Dichlorobenzene | 1.708 | 1.657 | 1.674 | 1.713 | 1.814 | 1.713 | 3.5 |
| 1,4-Dichlorobenzene | 1.742 | 1.635 | 1.628 | 1.658 | 1.738 | 1.680 | 3.3 |
| 1,2-Dichlorobenzene | 1.314 | 1.324 | 1.336 | 1.382 | 1.457 | 1.363 | 4.3 |
| 1,2-Dibromo-3-Chloropropane | 0.030 | 0.038 | 0.040 | 0.041 | 0.043 | 0.038 | 13.8 |
| 1,2,4-Trichlorobenzene | 0.922 | 0.904 | 0.929 | 0.958 | 1.006 | 0.944 | 4.2 |
| 1,2,3-Trichlorobenzene | 0.680 | 0.688 | 0.685 | 0.712 | 0.743 | 0.702 | 3.7 |

6C - FORM VI VOA-3
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 20615
 Instrument ID: D.i Calibration Date(s): 01/20/2014 01/20/2014
 Heated Purge: (Y/N) N Calibration Time(s): 1211 1349
 Purge Volume: 25.0 (mL)
 GC Column: DB-624 ID: 0.20 (mm) Length: 25 (m)

LAB FILE ID: _____ RRF0.5 = DLE02.D RRF1.0 = DLE03.D
 RRF5.0 = DLE04.D RRF10 = DLE05.D RRF20 = DLE06.D

| COMPOUND | RRF <u>0.5</u> | RRF <u>1.0</u> | RRF <u>5.0</u> | RRF <u>10</u> | RRF <u>20</u> | RRF | %RSD |
|------------------------------|----------------|----------------|----------------|---------------|---------------|-------|------|
| Vinyl Chloride-d3 | 0.404 | 0.395 | 0.381 | 0.389 | 0.398 | 0.393 | 2.2 |
| Chloroethane-d5 | 0.344 | 0.342 | 0.311 | 0.307 | 0.279 | 0.316 | 8.6 |
| 1,1-Dichloroethene-d2 | 0.722 | 0.697 | 0.681 | 0.689 | 0.701 | 0.698 | 2.2 |
| 2-Butanone-d5 | 0.033 | 0.034 | 0.032 | 0.033 | 0.034 | 0.033 | 2.8 |
| Chloroform-d | 0.509 | 0.511 | 0.503 | 0.512 | 0.530 | 0.513 | 2.0 |
| 1,2-Dichloroethane-d4 | 0.180 | 0.187 | 0.176 | 0.177 | 0.185 | 0.181 | 2.6 |
| Benzene-d6 | 1.529 | 1.552 | 1.539 | 1.584 | 1.632 | 1.567 | 2.7 |
| 1,2-Dichloropropane-d6 | 0.410 | 0.420 | 0.419 | 0.427 | 0.440 | 0.423 | 2.6 |
| Toluene-d8 | 1.485 | 1.469 | 1.494 | 1.546 | 1.610 | 1.521 | 3.8 |
| trans-1,3-Dichloropropene-d4 | 0.224 | 0.255 | 0.274 | 0.288 | 0.304 | 0.269 | 11.6 |
| 2-Hexanone-d5 | 0.030 | 0.033 | 0.035 | 0.036 | 0.038 | 0.034 | 8.0 |
| 1,1,2,2-Tetrachloroethane-d2 | 0.118 | 0.137 | 0.140 | 0.148 | 0.155 | 0.140 | 9.8 |
| 1,2-Dichlorobenzene-d4 | 1.053 | 0.927 | 0.849 | 0.870 | 0.908 | 0.921 | 8.6 |

Report 1,4-Dioxane-d8 for Low-Medium VOA analysis only

7A - FORM VII VOA-1
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 20615
 Instrument ID: D.i Calibration Date: 01/28/2014 Time: 1014
 Lab File Id: DLEC03.D Init. Calib. Date(s): 01/20/2014 01/20/2014
 EPA Sample No. (VSTD####): VSTD005DH Init. Calib. Time(s): 1211 1349
 Heated Purge: (Y/N) N GC Column: DB-624 ID: 0.20 (mm) Length: 25 (m)
 Purge Volume: 25.0 (mL)

| COMPOUND | RRF | RRF5.0 | MIN RRF | %D | MAX %D |
|---------------------------------------|-------|--------|---------|-------|--------|
| Dichlorodifluoromethane | 0.354 | 0.320 | 0.010 | -9.6 | 40.0 |
| Chloromethane | 0.351 | 0.354 | 0.010 | 0.9 | 40.0 |
| Vinyl chloride | 0.411 | 0.411 | 0.100 | -0.1 | 30.0 |
| Bromomethane | 0.118 | 0.163 | 0.100 | 38.7 | 30.0 |
| Chloroethane | 0.259 | 0.254 | 0.010 | -2.1 | 40.0 |
| Trichlorofluoromethane | 0.552 | 0.556 | 0.010 | 0.6 | 40.0 |
| 1,1-Dichloroethene | 0.352 | 0.341 | 0.100 | -3.2 | 30.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.379 | 0.370 | 0.010 | -2.4 | 40.0 |
| Acetone | 0.024 | 0.022 | 0.010 | -10.5 | 40.0 |
| Carbon disulfide | 0.833 | 0.823 | 0.010 | -1.2 | 40.0 |
| Methyl acetate | 0.060 | 0.065 | 0.010 | 8.4 | 40.0 |
| Methylene Chloride | 0.250 | 0.245 | 0.010 | -1.7 | 40.0 |
| trans-1,2-Dichloroethene | 0.314 | 0.313 | 0.010 | -0.4 | 40.0 |
| Methyl tert-butyl ether | 0.372 | 0.369 | 0.010 | -0.9 | 40.0 |
| 1,1-Dichloroethane | 0.559 | 0.572 | 0.200 | 2.4 | 30.0 |
| cis-1,2-Dichloroethene | 0.304 | 0.306 | 0.010 | 0.7 | 40.0 |
| 2-Butanone | 0.035 | 0.035 | 0.010 | 1.7 | 40.0 |
| Bromochloromethane | 0.092 | 0.093 | 0.050 | 0.3 | 30.0 |
| Chloroform | 0.500 | 0.505 | 0.200 | 1.0 | 30.0 |
| 1,1,1-Trichloroethane | 0.620 | 0.628 | 0.100 | 1.2 | 30.0 |
| Cyclohexane | 0.783 | 0.800 | 0.010 | 2.1 | 40.0 |
| Carbon tetrachloride | 0.554 | 0.570 | 0.100 | 3.0 | 30.0 |
| Benzene | 1.619 | 1.659 | 0.400 | 2.5 | 30.0 |
| 1,2-Dichloroethane | 0.227 | 0.237 | 0.100 | 4.1 | 30.0 |
| Trichloroethene | 0.409 | 0.412 | 0.300 | 0.8 | 30.0 |
| Methylcyclohexane | 0.621 | 0.659 | 0.010 | 6.2 | 40.0 |

Report 1,4-Dioxane for Low/Medium VOA analysis only

7B - FORM VII VOA-2
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 20615
 Instrument ID: D.i Calibration Date: 01/28/2014 Time: 1014
 Lab File Id: DLEC03.D Init. Calib. Date(s): 01/20/2014 01/20/2014
 EPA Sample No. (VSTD####): VSTD005DH Init. Calib. Time(s): 1211 1349
 Heated Purge: (Y/N) N GC Column: DB-624 ID: 0.20 (mm) Length: 25 (m)
 Purge Volume: 25.0 (mL)

| COMPOUND | RRF | RRF5.0 | MIN RRF | %D | MAX %D |
|-----------------------------|-------|--------|---------|------|--------|
| 1,2-Dichloropropane | 0.322 | 0.333 | 0.010 | 3.6 | 40.0 |
| Bromodichloromethane | 0.337 | 0.351 | 0.200 | 4.2 | 30.0 |
| cis-1,3-Dichloropropene | 0.458 | 0.470 | 0.200 | 2.8 | 30.0 |
| 4-Methyl-2-pentanone | 0.100 | 0.101 | 0.010 | 1.5 | 40.0 |
| Toluene | 1.761 | 1.786 | 0.400 | 1.5 | 30.0 |
| trans-1,3-Dichloropropene | 0.308 | 0.322 | 0.100 | 4.4 | 30.0 |
| 1,1,2-Trichloroethane | 0.160 | 0.158 | 0.100 | -1.5 | 30.0 |
| Tetrachloroethene | 0.402 | 0.396 | 0.100 | -1.7 | 30.0 |
| 2-Hexanone | 0.068 | 0.069 | 0.010 | 2.5 | 40.0 |
| Dibromochloromethane | 0.174 | 0.178 | 0.100 | 2.2 | 30.0 |
| 1,2-Dibromoethane | 0.131 | 0.134 | 0.010 | 2.5 | 40.0 |
| Chlorobenzene | 1.064 | 1.059 | 0.500 | -0.6 | 30.0 |
| Ethylbenzene | 2.062 | 2.080 | 0.100 | 0.9 | 30.0 |
| o-Xylene | 0.745 | 0.749 | 0.300 | 0.6 | 30.0 |
| m,p-Xylene | 0.827 | 0.819 | 0.300 | -1.0 | 30.0 |
| Styrene | 1.026 | 1.026 | 0.300 | -0.1 | 30.0 |
| Bromoform | 0.146 | 0.151 | 0.050 | 4.0 | 30.0 |
| Isopropylbenzene | 2.185 | 2.205 | 0.010 | 0.9 | 40.0 |
| 1,1,2,2-Tetrachloroethane | 0.143 | 0.145 | 0.100 | 0.9 | 30.0 |
| 1,3-Dichlorobenzene | 1.713 | 1.736 | 0.400 | 1.4 | 30.0 |
| 1,4-Dichlorobenzene | 1.680 | 1.678 | 0.400 | -0.1 | 30.0 |
| 1,2-Dichlorobenzene | 1.363 | 1.382 | 0.400 | 1.4 | 30.0 |
| 1,2-Dibromo-3-Chloropropane | 0.038 | 0.042 | 0.010 | 9.9 | 40.0 |
| 1,2,4-Trichlorobenzene | 0.944 | 0.938 | 0.200 | -0.6 | 30.0 |
| 1,2,3-Trichlorobenzene | 0.702 | 0.691 | 0.200 | -1.5 | 30.0 |

7C - FORM VII VOA-3
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 20615
 Instrument ID: D.i Calibration Date: 01/28/2014 Time: 1014
 Lab File Id: DLEC03.D Init. Calib. Date(s): 01/20/2014 01/20/2014
 EPA Sample No. (VSTD####): VSTD005DH Init. Calib. Time(s): 1211 1349
 Heated Purge: (Y/N) N GC Column: DB-624 ID: 0.20 (mm) Length: 25 (m)
 Purge Volume: 25.0 (mL)

| COMPOUND | RRF | RRF5.0 | MIN RRF | %D | MAX %D |
|------------------------------|-------|--------|---------|------|--------|
| Vinyl Chloride-d3 | 0.393 | 0.394 | 0.010 | 0.1 | 30.0 |
| Chloroethane-d5 | 0.316 | 0.309 | 0.010 | -2.4 | 40.0 |
| 1,1-Dichloroethene-d2 | 0.698 | 0.703 | 0.010 | 0.8 | 30.0 |
| 2-Butanone-d5 | 0.033 | 0.034 | 0.010 | 0.8 | 40.0 |
| Chloroform-d | 0.513 | 0.526 | 0.010 | 2.5 | 30.0 |
| 1,2-Dichloroethane-d4 | 0.181 | 0.184 | 0.010 | 1.8 | 30.0 |
| Benzene-d6 | 1.567 | 1.564 | 0.010 | -0.2 | 30.0 |
| 1,2-Dichloropropane-d6 | 0.423 | 0.441 | 0.010 | 4.2 | 40.0 |
| Toluene-d8 | 1.521 | 1.515 | 0.010 | -0.4 | 30.0 |
| trans-1,3-Dichloropropene-d4 | 0.269 | 0.277 | 0.010 | 2.9 | 30.0 |
| 2-Hexanone-d5 | 0.034 | 0.034 | 0.010 | -2.0 | 40.0 |
| 1,1,2,2-Tetrachloroethane-d2 | 0.140 | 0.142 | 0.010 | 1.5 | 30.0 |
| 1,2-Dichlorobenzene-d4 | 0.921 | 0.866 | 0.010 | -6.0 | 30.0 |

Report 1,4-Dioxane-d8 for Low/Medium VOA analysis only

7A - FORM VII VOA-1
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 20615
 Instrument ID: D.i Calibration Date: 01/28/2014 Time: 1420
 Lab File Id: DLEC11.D Init. Calib. Date(s): 01/20/2014 01/20/2014
 EPA Sample No. (VSTD####): VSTD005HD Init. Calib. Time(s): 1211 1349
 Heated Purge: (Y/N) N GC Column: DB-624 ID: 0.20 (mm) Length: 25 (m)
 Purge Volume: 25.0 (mL)

| COMPOUND | RRF | RRF5.0 | MIN RRF | %D | MAX %D |
|---------------------------------------|-------|--------|---------|-------|--------|
| Dichlorodifluoromethane | 0.354 | 0.318 | 0.010 | -10.2 | 50.0 |
| Chloromethane | 0.351 | 0.366 | 0.010 | 4.2 | 50.0 |
| Vinyl chloride | 0.411 | 0.402 | 0.010 | -2.1 | 50.0 |
| Bromomethane | 0.118 | 0.145 | 0.010 | 23.5 | 50.0 |
| Chloroethane | 0.259 | 0.248 | 0.010 | -4.3 | 50.0 |
| Trichlorofluoromethane | 0.552 | 0.542 | 0.010 | -1.9 | 50.0 |
| 1,1-Dichloroethene | 0.352 | 0.333 | 0.010 | -5.2 | 50.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.379 | 0.363 | 0.010 | -4.3 | 50.0 |
| Acetone | 0.024 | 0.023 | 0.010 | -5.7 | 50.0 |
| Carbon disulfide | 0.833 | 0.794 | 0.010 | -4.7 | 50.0 |
| Methyl acetate | 0.060 | 0.064 | 0.010 | 7.5 | 50.0 |
| Methylene Chloride | 0.250 | 0.240 | 0.010 | -3.8 | 50.0 |
| trans-1,2-Dichloroethene | 0.314 | 0.309 | 0.010 | -1.6 | 50.0 |
| Methyl tert-butyl ether | 0.372 | 0.368 | 0.010 | -1.1 | 50.0 |
| 1,1-Dichloroethane | 0.559 | 0.550 | 0.010 | -1.6 | 50.0 |
| cis-1,2-Dichloroethene | 0.304 | 0.300 | 0.010 | -1.3 | 50.0 |
| 2-Butanone | 0.035 | 0.036 | 0.010 | 3.4 | 50.0 |
| Bromochloromethane | 0.092 | 0.092 | 0.010 | -0.4 | 50.0 |
| Chloroform | 0.500 | 0.490 | 0.010 | -1.9 | 50.0 |
| 1,1,1-Trichloroethane | 0.620 | 0.614 | 0.010 | -1.0 | 50.0 |
| Cyclohexane | 0.783 | 0.775 | 0.010 | -1.1 | 50.0 |
| Carbon tetrachloride | 0.554 | 0.546 | 0.010 | -1.4 | 50.0 |
| Benzene | 1.619 | 1.615 | 0.010 | -0.2 | 50.0 |
| 1,2-Dichloroethane | 0.227 | 0.232 | 0.010 | 2.1 | 50.0 |
| Trichloroethene | 0.409 | 0.405 | 0.010 | -1.0 | 50.0 |
| Methylcyclohexane | 0.621 | 0.634 | 0.010 | 2.2 | 50.0 |

Report 1,4-Dioxane for Low/Medium VOA analysis only

7B - FORM VII VOA-2
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 20615
 Instrument ID: D.i Calibration Date: 01/28/2014 Time: 1420
 Lab File Id: DLEC11.D Init. Calib. Date(s): 01/20/2014 01/20/2014
 EPA Sample No. (VSTD####): VSTD005HD Init. Calib. Time(s): 1211 1349
 Heated Purge: (Y/N) N GC Column: DB-624 ID: 0.20 (mm) Length: 25 (m)
 Purge Volume: 25.0 (mL)

| COMPOUND | RRF | RRF5.0 | MIN RRF | %D | MAX %D |
|-----------------------------|-------|--------|---------|------|--------|
| 1,2-Dichloropropane | 0.322 | 0.325 | 0.010 | 1.1 | 50.0 |
| Bromodichloromethane | 0.337 | 0.343 | 0.010 | 1.7 | 50.0 |
| cis-1,3-Dichloropropene | 0.458 | 0.461 | 0.010 | 0.8 | 50.0 |
| 4-Methyl-2-pentanone | 0.100 | 0.103 | 0.010 | 3.7 | 50.0 |
| Toluene | 1.761 | 1.748 | 0.010 | -0.7 | 50.0 |
| trans-1,3-Dichloropropene | 0.308 | 0.313 | 0.010 | 1.6 | 50.0 |
| 1,1,2-Trichloroethane | 0.160 | 0.161 | 0.010 | 0.5 | 50.0 |
| Tetrachloroethene | 0.402 | 0.396 | 0.010 | -1.7 | 50.0 |
| 2-Hexanone | 0.068 | 0.071 | 0.010 | 5.3 | 50.0 |
| Dibromochloromethane | 0.174 | 0.174 | 0.010 | -0.2 | 50.0 |
| 1,2-Dibromoethane | 0.131 | 0.137 | 0.010 | 5.0 | 50.0 |
| Chlorobenzene | 1.064 | 1.040 | 0.010 | -2.3 | 50.0 |
| Ethylbenzene | 2.062 | 2.027 | 0.010 | -1.7 | 50.0 |
| o-Xylene | 0.745 | 0.714 | 0.010 | -4.2 | 50.0 |
| m,p-Xylene | 0.827 | 0.784 | 0.010 | -5.2 | 50.0 |
| Styrene | 1.026 | 0.955 | 0.010 | -6.9 | 50.0 |
| Bromoform | 0.146 | 0.144 | 0.010 | -1.0 | 50.0 |
| Isopropylbenzene | 2.185 | 2.164 | 0.010 | -1.0 | 50.0 |
| 1,1,2,2-Tetrachloroethane | 0.143 | 0.147 | 0.010 | 2.3 | 50.0 |
| 1,3-Dichlorobenzene | 1.713 | 1.706 | 0.010 | -0.4 | 50.0 |
| 1,4-Dichlorobenzene | 1.680 | 1.659 | 0.010 | -1.3 | 50.0 |
| 1,2-Dichlorobenzene | 1.363 | 1.349 | 0.010 | -1.0 | 50.0 |
| 1,2-Dibromo-3-Chloropropane | 0.038 | 0.038 | 0.010 | -1.4 | 50.0 |
| 1,2,4-Trichlorobenzene | 0.944 | 0.932 | 0.010 | -1.2 | 50.0 |
| 1,2,3-Trichlorobenzene | 0.702 | 0.701 | 0.010 | 0.0 | 50.0 |

7C - FORM VII VOA-3
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 20615
 Instrument ID: D.i Calibration Date: 01/28/2014 Time: 1420
 Lab File Id: DLEC11.D Init. Calib. Date(s): 01/20/2014 01/20/2014
 EPA Sample No. (VSTD####): VSTD005HD Init. Calib. Time(s): 1211 1349
 Heated Purge: (Y/N) N GC Column: DB-624 ID: 0.20 (mm) Length: 25 (m)
 Purge Volume: 25.0 (mL)

| COMPOUND | RRF | RRF5.0 | MIN RRF | %D | MAX %D |
|------------------------------|-------|--------|---------|------|--------|
| Vinyl Chloride-d3 | 0.393 | 0.383 | 0.010 | -2.6 | 50.0 |
| Chloroethane-d5 | 0.316 | 0.306 | 0.010 | -3.4 | 50.0 |
| 1,1-Dichloroethene-d2 | 0.698 | 0.693 | 0.010 | -0.7 | 50.0 |
| 2-Butanone-d5 | 0.033 | 0.034 | 0.010 | 2.9 | 50.0 |
| Chloroform-d | 0.513 | 0.515 | 0.010 | 0.3 | 50.0 |
| 1,2-Dichloroethane-d4 | 0.181 | 0.181 | 0.010 | 0.0 | 50.0 |
| Benzene-d6 | 1.567 | 1.543 | 0.010 | -1.5 | 50.0 |
| 1,2-Dichloropropane-d6 | 0.423 | 0.429 | 0.010 | 1.3 | 50.0 |
| Toluene-d8 | 1.521 | 1.504 | 0.010 | -1.1 | 50.0 |
| trans-1,3-Dichloropropene-d4 | 0.269 | 0.275 | 0.010 | 2.3 | 50.0 |
| 2-Hexanone-d5 | 0.034 | 0.035 | 0.010 | 1.4 | 50.0 |
| 1,1,2,2-Tetrachloroethane-d2 | 0.140 | 0.146 | 0.010 | 4.7 | 50.0 |
| 1,2-Dichlorobenzene-d4 | 0.921 | 0.867 | 0.010 | -5.9 | 50.0 |

Report 1,4-Dioxane-d8 for Low/Medium VOA analysis only

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 20615
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: MB 200-67772/5
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: DLEC05.D
 Level: (TRACE/LOW/MED) TRACE Date Received: _____
 % Moisture: not dec. Date Analyzed: 01/28/2014
 GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 25.0 (mL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u> | <u>Q</u> |
|-----------|---------------------------------------|---|----------|
| 75-71-8 | Dichlorodifluoromethane | 0.50 | U |
| 74-87-3 | Chloromethane | 0.27 | J |
| 75-01-4 | Vinyl chloride | 0.50 | U |
| 74-83-9 | Bromomethane | 0.26 | J |
| 75-00-3 | Chloroethane | 0.50 | U |
| 75-69-4 | Trichlorofluoromethane | 0.50 | U |
| 75-35-4 | 1,1-Dichloroethene | 0.50 | U |
| 76-13-1 | 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.50 | U |
| 67-64-1 | Acetone | 5.0 | U |
| 75-15-0 | Carbon disulfide | 0.50 | U |
| 79-20-9 | Methyl acetate | 0.50 | U |
| 75-09-2 | Methylene Chloride | 0.097 | J |
| 156-60-5 | trans-1,2-Dichloroethene | 0.50 | U |
| 1634-04-4 | Methyl tert-butyl ether | 0.50 | U |
| 75-34-3 | 1,1-Dichloroethane | 0.50 | U |
| 156-59-2 | cis-1,2-Dichloroethene | 0.50 | U |
| 78-93-3 | 2-Butanone | 5.0 | U |
| 74-97-5 | Bromochloromethane | 0.50 | U |
| 67-66-3 | Chloroform | 0.50 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 0.50 | U |
| 110-82-7 | Cyclohexane | 0.50 | U |
| 56-23-5 | Carbon tetrachloride | 0.50 | U |
| 71-43-2 | Benzene | 0.50 | U |
| 107-06-2 | 1,2-Dichloroethane | 0.50 | U |

Report 1,4-Dioxane for Low-Medium VOA analysis only

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 20615
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: MB 200-67772/5
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: DLEC05.D
 Level: (TRACE/LOW/MED) TRACE Date Received: _____
 % Moisture: not dec. Date Analyzed: 01/28/2014
 GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 25.0 (mL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/L | Q |
|-------------|-----------------------------|--|---|
| 79-01-6 | Trichloroethene | 0.50 | U |
| 108-87-2 | Methylcyclohexane | 0.50 | U |
| 78-87-5 | 1,2-Dichloropropane | 0.50 | U |
| 75-27-4 | Bromodichloromethane | 0.50 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 0.50 | U |
| 108-10-1 | 4-Methyl-2-pentanone | 5.0 | U |
| 108-88-3 | Toluene | 0.50 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.50 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 0.50 | U |
| 127-18-4 | Tetrachloroethene | 0.50 | U |
| 591-78-6 | 2-Hexanone | 5.0 | U |
| 124-48-1 | Dibromochloromethane | 0.50 | U |
| 106-93-4 | 1,2-Dibromoethane | 0.50 | U |
| 108-90-7 | Chlorobenzene | 0.50 | U |
| 100-41-4 | Ethylbenzene | 0.50 | U |
| 95-47-6 | o-Xylene | 0.50 | U |
| 179601-23-1 | m,p-Xylene | 0.50 | U |
| 100-42-5 | Styrene | 0.50 | U |
| 75-25-2 | Bromoform | 0.50 | U |
| 98-82-8 | Isopropylbenzene | 0.50 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 0.50 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 0.50 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 0.50 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 0.50 | U |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 0.50 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 0.50 | U |
| 87-61-6 | 1,2,3-Trichlorobenzene | 0.50 | U |

1J - FORM I VOA-TIC
 VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKDH

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 20615
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: MB 200-67772/5
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: DLEC05.D
 Level: (TRACE or LOW/MED) TRACE Date Received: _____
 % Moisture: not dec. _____ Date Analyzed: 01/28/2014
 GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 CONCENTRATION UNITS: (ug/L or ug/kg) ug/L Purge Volume: 25.0 (mL)

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|----|----------------------|---------------------------------|-------|------------|-------|
| 01 | | Unknown | 7.48 | 3.2 | B X J |
| 02 | 541-05-9 | Cyclotrisiloxane, hexamethyl- | 8.39 | 1.3 | J N |
| 03 | 556-67-2 | Cyclotetrasiloxane, octamethyl- | 11.21 | 1.9 | J N |
| 04 | | Unknown | 13.34 | 0.52 | J |
| 05 | E966796 ¹ | Total Alkanes | N/A | | |

¹EPA-designated Registry Number.

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 20615
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-20615-4
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: DLEC09.D
 Level: (TRACE/LOW/MED) TRACE Date Received: _____
 % Moisture: not dec. Date Analyzed: 01/28/2014
 GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 25.0 (mL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u> | <u>Q</u> |
|-----------|---------------------------------------|---|----------|
| 75-71-8 | Dichlorodifluoromethane | 0.50 | U |
| 74-87-3 | Chloromethane | 0.50 | U |
| 75-01-4 | Vinyl chloride | 0.50 | U |
| 74-83-9 | Bromomethane | 0.50 | U |
| 75-00-3 | Chloroethane | 0.50 | U |
| 75-69-4 | Trichlorofluoromethane | 0.50 | U |
| 75-35-4 | 1,1-Dichloroethene | 0.50 | U |
| 76-13-1 | 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.50 | U |
| 67-64-1 | Acetone | 5.0 | U |
| 75-15-0 | Carbon disulfide | 0.50 | U |
| 79-20-9 | Methyl acetate | 0.50 | U |
| 75-09-2 | Methylene Chloride | 0.50 | U |
| 156-60-5 | trans-1,2-Dichloroethene | 0.50 | U |
| 1634-04-4 | Methyl tert-butyl ether | 0.50 | U |
| 75-34-3 | 1,1-Dichloroethane | 0.50 | U |
| 156-59-2 | cis-1,2-Dichloroethene | 0.50 | U |
| 78-93-3 | 2-Butanone | 5.0 | U |
| 74-97-5 | Bromochloromethane | 0.50 | U |
| 67-66-3 | Chloroform | 0.50 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 0.50 | U |
| 110-82-7 | Cyclohexane | 0.50 | U |
| 56-23-5 | Carbon tetrachloride | 0.50 | U |
| 71-43-2 | Benzene | 0.50 | U |
| 107-06-2 | 1,2-Dichloroethane | 0.50 | U |

Report 1,4-Dioxane for Low-Medium VOA analysis only

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 20615
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-20615-4
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: DLEC09.D
 Level: (TRACE/LOW/MED) TRACE Date Received: _____
 % Moisture: not dec. Date Analyzed: 01/28/2014
 GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 25.0 (mL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/L | Q |
|-------------|-----------------------------|--|---|
| 79-01-6 | Trichloroethene | 0.50 | U |
| 108-87-2 | Methylcyclohexane | 0.50 | U |
| 78-87-5 | 1,2-Dichloropropane | 0.50 | U |
| 75-27-4 | Bromodichloromethane | 0.50 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 0.50 | U |
| 108-10-1 | 4-Methyl-2-pentanone | 5.0 | U |
| 108-88-3 | Toluene | 0.50 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.50 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 0.50 | U |
| 127-18-4 | Tetrachloroethene | 0.50 | U |
| 591-78-6 | 2-Hexanone | 5.0 | U |
| 124-48-1 | Dibromochloromethane | 0.50 | U |
| 106-93-4 | 1,2-Dibromoethane | 0.50 | U |
| 108-90-7 | Chlorobenzene | 0.50 | U |
| 100-41-4 | Ethylbenzene | 0.50 | U |
| 95-47-6 | o-Xylene | 0.50 | U |
| 179601-23-1 | m,p-Xylene | 0.50 | U |
| 100-42-5 | Styrene | 0.50 | U |
| 75-25-2 | Bromoform | 0.50 | U |
| 98-82-8 | Isopropylbenzene | 0.50 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 0.50 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 0.50 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 0.50 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 0.50 | U |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 0.50 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 0.50 | U |
| 87-61-6 | 1,2,3-Trichlorobenzene | 0.50 | U |

1J - FORM I VOA-TIC
 VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VHBLK01

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302
 Lab Code: STLV Case No.: RAMONA Mod. Ref No.: _____ SDG No.: 20615
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-20615-4
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: DLEC09.D
 Level: (TRACE or LOW/MED) TRACE Date Received: _____
 % Moisture: not dec. _____ Date Analyzed: 01/28/2014
 GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 CONCENTRATION UNITS: (ug/L or ug/kg) ug/L Purge Volume: 25.0 (mL)

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|----|----------------------|---------------|------|------------|-------|
| 01 | | Unknown | 7.48 | 3.2 | B X J |
| 02 | E966796 ¹ | Total Alkanes | N/A | | |

¹EPA-designated Registry Number.

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-20615-1SDG No.: 20615Instrument ID: D.i Analysis Batch Number: 67403Lab Sample ID: IC 200-67403/2 Client Sample ID: _____Date Analyzed: 01/20/14 12:11 Lab File ID: dle02.d GC Column: DB-624 ID: 0.2 (mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---------------------------|----------------|---|---------|----------------|
| | | REASON | ANALYST | DATE |
| Bromodichloromethane | 7.01 | Analyte not identified by the data system | mtp | 01/20/14 13:18 |
| 1,2-Dibromoethane | 8.97 | Analyte not identified by the data system | mtp | 01/20/14 13:18 |
| Bromoform | 10.55 | Analyte not identified by the data system | mtp | 01/20/14 13:18 |
| 1,1,2,2-Tetrachloroethane | 11.13 | Analyte not identified by the data system | mtp | 01/20/14 13:18 |

Lab Sample ID: IC 200-67403/3 Client Sample ID: _____Date Analyzed: 01/20/14 12:35 Lab File ID: dle03.d GC Column: DB-624 ID: 0.2 (mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|-------------------|----------------|---|---------|----------------|
| | | REASON | ANALYST | DATE |
| 1,2-Dibromoethane | 8.98 | Analyte not identified by the data system | mtp | 01/20/14 13:19 |

Lab Sample ID: IC 200-67403/5 Client Sample ID: _____Date Analyzed: 01/20/14 13:25 Lab File ID: dle05.d GC Column: DB-624 ID: 0.2 (mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|-------------------------|----------------|---|---------|----------------|
| | | REASON | ANALYST | DATE |
| Dichlorodifluoromethane | 1.59 | Analyte not identified by the data system | mtp | 01/20/14 14:13 |



Environmental Science Division

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U.S. DEPARTMENT OF
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