

# Annual Report of Monitoring at Morrill, Kansas, in 2010

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Environmental Science Division



United States Department of Agriculture

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

June 2011



United States Department of Agriculture

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## Notation

AGEM	Applied Geosciences and Environmental Management
AMSL	above mean sea level
BGL	below ground level
°C	degree(s) Celsius
CCC	Commodity Credit Corporation
CD	compact disc
DOE	U.S. Department of Energy
DO	dissolved oxygen
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/kg	microgram(s) per kilogram
µg/L	microgram(s) per liter
µS/cm	microsiemen(s) per centimeter
mg/L	milligram(s) per liter
mi	mile(s)
min	minute(s)
mV	millivolt(s)
ORP	oxidation-reduction potential
RPD	relative percent difference
SOP	standard operating procedure
TOC	top of casing
USDA	U.S. Department of Agriculture
VOC	volatile organic compound

## Annual Report of Monitoring at Morrill, Kansas, in 2010

### 1 Introduction and Background

Carbon tetrachloride contamination in groundwater at Morrill, Kansas, was initially identified in 1985 during statewide testing of public water supply wells for volatile organic compounds (VOCs). High levels of nitrate were also present in the wells. The city of Morrill is located in Brown County in the northeastern corner of the state, about 7 mi east of Sabetha. The population of Morrill as of the 2000 census was approximately 277. All residents of Morrill now obtain their drinking water from the Sabetha municipal water system via a pipeline constructed in 1991. Starting in 1922, eight different public wells formerly served the Morrill municipal system at some time. Because of poor water quality, including high nitrate levels attributed to numerous animal feeding operations in the vicinity and application of fertilizer on agricultural lands, use of the local groundwater from any public well for municipal supply purposes was terminated in 1991 in favor of obtaining water from the Sabetha municipal water system.

Investigations of the carbon tetrachloride and nitrate contamination by the Kansas Department of Health and Environment (KDHE) in 1989, 1994, and 1996 (KDHE 1989; GeoCore 1994a-e, 1996) identified a localized plume of carbon tetrachloride in groundwater extending downgradient from a grain storage facility located in the northwestern section of Morrill. The facility was formerly operated by the Commodity Credit Corporation (CCC), an agency of the U.S. Department of Agriculture (USDA), from 1950 to 1971. Since termination of the CCC/USDA grain storage operations in 1971, the property and existing grain bins have been used for private grain storage up to the present time. Prior to 1986, commercial grain fumigants were commonly used by the CCC/USDA, as well as private and commercial grain storage operations, to preserve grain.

Because the identified carbon tetrachloride contamination could in part be linked to historical use of carbon tetrachloride-based fumigants at its former facility, in 2003 the CCC/USDA assumed responsibility for the site investigation of the carbon tetrachloride contamination. The CCC/USDA involvement began with development and implementation of a work plan for a Phase I expedited site characterization (Argonne 2003). That investigation and subsequent investigations (Argonne 2004, 2005a) were performed by the Environmental Science Division of Argonne National Laboratory. Argonne is a nonprofit, multidisciplinary research center operated by UChicago Argonne, LLC, for the U.S. Department of Energy (DOE). The



CCC/USDA has entered into an interagency agreement with DOE, under which Argonne continues to provide technical assistance to the CCC/USDA with environmental site characterization and remediation at its former grain storage facilities.

The initial investigation by the CCC/USDA in 2003 determined that soils at the former facility have not been impacted by grain fumigation activities. Neither carbon tetrachloride nor chloroform was detected in near-surface soils or in subsurface soils collected to bedrock or to a depth of 15 ft below ground level (BGL). Therefore, no identifiable human health risk is associated with either carbon tetrachloride or chloroform in shallow soils, which additionally pose no further threat of contamination to groundwater. High carbon tetrachloride concentrations in groundwater (maximum 390  $\mu\text{g/L}$  in a sample collected from monitoring well MW3S — located on the former CCC/USDA property — in 1995) have declined significantly during long-term monitoring by the KDHE and currently by the CCC/USDA. Maximum levels within the plume of < 50  $\mu\text{g/L}$  at present confirm that no continuing soil source remains at the former CCC/USDA facility. Nevertheless, carbon tetrachloride concentrations exceeding the KDHE Tier 2 risk-based screening level of 5.0  $\mu\text{g/L}$  remain.

In September 2005, the CCC/USDA initiated periodic sampling of groundwater at Morrill, in accord with a monitoring program approved by the state (KDHE 2005), to monitor carbon tetrachloride concentrations in the groundwater.

Under the KDHE-approved monitoring plan (Argonne 2005b), groundwater was initially sampled twice yearly for a period of two years. The samples were analyzed for VOCs, as well as for selected geochemical parameters to aid in the evaluation of possible natural contaminant degradation (reductive dechlorination) processes in the subsurface environment. The data have been inconclusive overall, possibly because of the relatively low contaminant concentrations in the plume. Nevertheless, consistently low levels of dissolved oxygen (DO) and oxidation-reduction potential (ORP) at monitoring well MW1D (in the deepest portion of the contaminated aquifer) and the presence of chloroform (the primary degradation product of carbon tetrachloride) suggest that some degree of reductive dechlorination is occurring.

The analytical results for groundwater sampling events at Morrill from September 2005 to September 2009 were documented previously (Argonne 2006, 2007a,b, 2008a,b, 2009, 2010). Those results consistently demonstrated the presence of carbon tetrachloride contamination, at concentrations exceeding the KDHE Tier 2 risk-based screening level of 5.0  $\mu\text{g/L}$  for this

compound, in a groundwater plume extending generally southward from the former CCC/USDA facility, toward Terrapin Creek at the south edge of the town. Low concentrations ( $\leq 2 \mu\text{g/L}$ ) of carbon tetrachloride have been detected persistently at monitoring well MW8S, on the bank of an intermittent tributary to Terrapin Creek. This observation suggests a possible risk of contamination of the surface waters of the creek. That concern is the regulatory driver for ongoing monitoring.

In light of the early findings, in 2006 the CCC/USDA recommended expansion of the approved monitoring program to include the collection and analysis of surface water samples along Terrapin Creek (Argonne 2007a). At the request of the KDHE (2007a), locations for both surface water and shallow sediment sampling were discussed with the KDHE in January 2007. An addendum to the existing monitoring plan (Appendix A in the report of 2009 monitoring [Argonne 2010]) and a standard operating procedure (SOP AGEM-15; Appendix B in Argonne 2010) for sediment sampling were submitted to the KDHE on the basis of these discussions and were subsequently approved (KDHE 2008b). To supplement the original scope of the monitoring, Argonne also samples natural vegetation at locations within the contaminant plume and along Terrapin Creek for analyses for VOCs.

In August 2010, indoor air sampling was conducted at seven residences, one church, and one business located within the contaminant plume to evaluate the potential for vapor intrusion. Carbon tetrachloride contamination was not detected.

The April and September 2010 groundwater sampling events reported here represent a continuation of the approved monitoring program, as requested by the KDHE (2007b). The groundwater sampling is presently conducted, in accord with the monitoring plan (Argonne 2005b) and the addendum to that plan (Appendix A in Argonne 2010), in a network of 12 monitoring wells and 3 private wells (Figure 1.1), at locations approved by the KDHE (2008b). In addition, since 2008, overflow from the Grimm irrigation well (installed in 2008 just south of Terrapin Creek) has also been sampled.

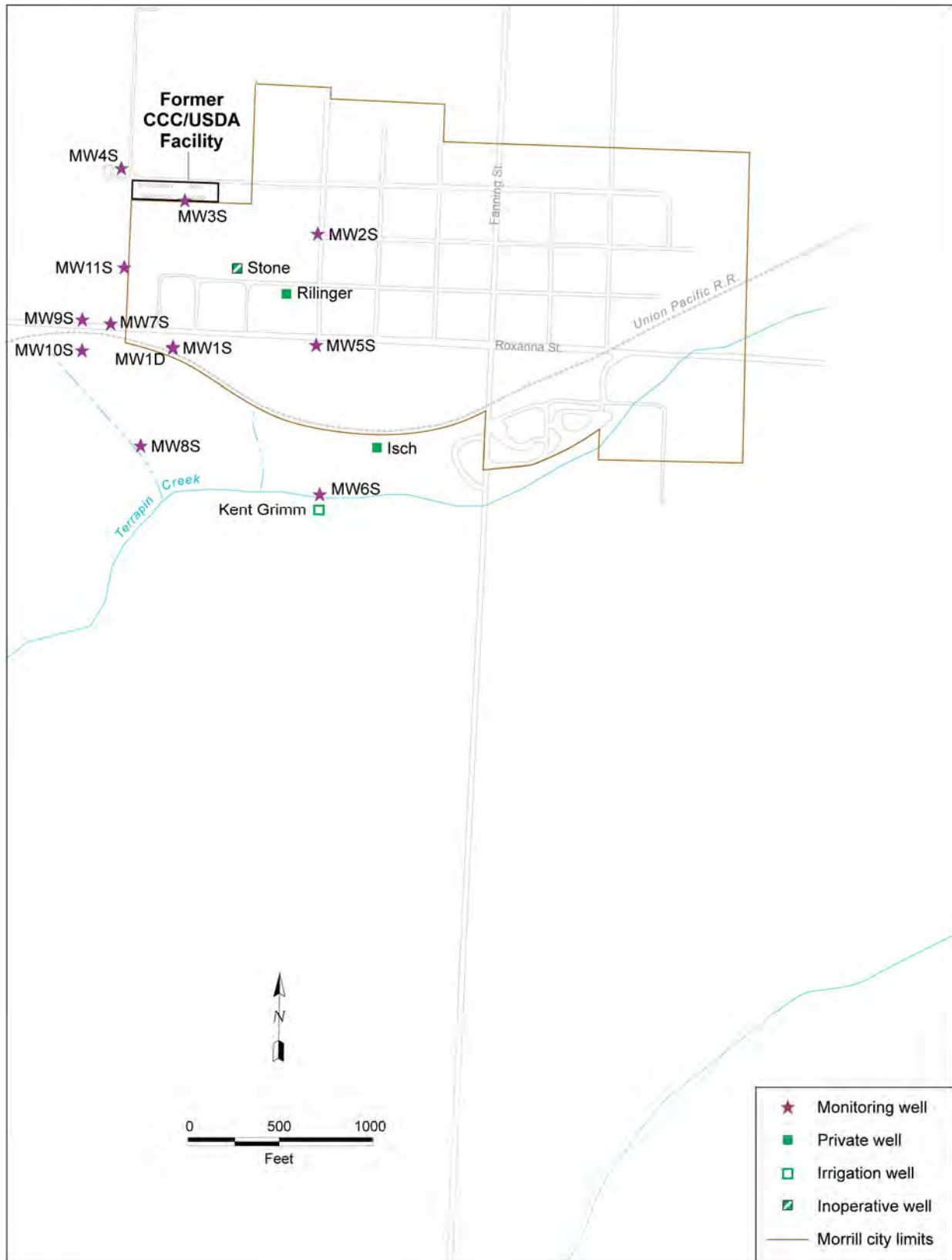


FIGURE 1.1 Monitoring network at Morrill, as of September 2010.

## 2 Sample Collection and Analysis Activities

### 2.1 Measurement of Groundwater Levels

Data recorders currently installed in wells MW1S-MW4S and MW6S-MW8S are gathering long-term data on the groundwater elevation and gradient at Morrill in order to evaluate daily-to-seasonal variation. In addition, to calibrate the long-term data and to define the potentiometric surface, depths to groundwater and total well depths from the tops of the well casings are measured periodically (in conjunction with the data recorder downloads) and also during each groundwater sampling event, with an accuracy of  $\pm 0.01$  ft.

During the current reporting period, the data recorders were downloaded on April 28, 2010, and October 1, 2010. Water levels were measured manually in all monitoring wells on these dates, as well as during the sampling events on April 6-7, 2010, and September 22-23, 2010.

The groundwater level data are discussed in Section 3.1.

### 2.2 Monitoring Well and Private Well Sampling and Analyses

Monitoring wells MW1D and MW1S-MW11S and the Stone, Isch, and Rilinger private wells (Figure 1.1) were sampled on April 6-7, 2010, and September 22-23, 2010.

Except as noted otherwise, samples were collected from monitoring wells by using a low-flow bladder pump. After measurement of water levels, each monitoring point was purged of a small volume, in accord with U.S. Environmental Protection Agency (EPA) procedure EPA/540/S-95/504 (Puls and Barcelona 1996; Yeskis and Zavala 2002) and the equipment manufacturers' instructions. Field measurements of temperature, pH, conductivity, DO, and ORP were taken during purging until the measurements stabilized. Field measurements of iron(II) were made as outlined in the monitoring plan (Argonne 2005b), in accord with procedures in the *Master Work Plan* (Argonne 2002). Samples from the Isch and Rilinger private wells were collected after a 5-min purge with the dedicated pump. The sample from the Stone private well was collected after purging of the well by bailing.

Prior sampling at MW1S, which is located near the center of the contaminant plume and is screened over a 40-ft interval, has indicated that a representative sample is not collected by the low-flow sampling procedure. During additional sampling in April 2010, low-flow samples were collected at three depths within the screen (at positions near the top, middle, and bottom of the screen). A sample was also collected after purging of three well volumes. This comparison sampling is discussed further in Section 3.5.

The sequence of activities during the 2010 sampling events is summarized in Appendix A, Table A.1.

Groundwater samples for VOCs analyses were collected in appropriate laboratory containers, labeled, packaged, and chilled to 4°C by placement in ice-filled coolers. The samples were shipped by an overnight delivery service to the Applied Geosciences and Environmental Management (AGEM) Laboratory at Argonne for VOCs analyses with EPA Method 524.2 (EPA 1995). Separate aliquots of selected samples (chosen in the field) were shipped to TestAmerica Laboratories, Inc., South Burlington, Vermont, for verification VOCs analysis.

The groundwater analysis results are presented and discussed in Section 3.2.

### **2.3 Surface Water and Sediment Sampling and Analyses**

At the request of the KDHE (2007a), surface water samples and corresponding samples of the underlying shallow sediments in the creek bed are routinely collected for VOCs analyses at five locations along Terrapin Creek (Figure 2.1), as outlined in the monitoring plan addendum (Appendix A in Argonne 2010). The sampling was conducted in accord with procedures in the *Master Work Plan* (Argonne 2002) and SOP AGEM-15 (Appendix B in Argonne 2010). Surface water flow in Terrapin Creek south of Morrill originates at the outfall from an earthen dam and retention pond approximately 1,900 ft southwest of the former CCC/USDA facility (Figure 2.1). Surface water and sediment sampling location SMB, which is directly downstream from this outfall, is believed to lie upgradient, or cross-gradient, to groundwater flow (and hence possible contaminant migration) from the vicinity of the former CCC/USDA facility. (See Section 3.1.) Sampling locations SM1-SM4 were selected to lie downgradient and downstream from the carbon tetrachloride detections previously identified at MW8S and elsewhere in the monitoring well network.

Samples of surface water were collected in appropriate containers, labeled, preserved at 4°C, and shipped by an overnight delivery service to the AGEM Laboratory for VOCs analyses with EPA Method 524.2 (EPA 1995). Samples of the shallow creek bed sediments were collected by scooping the materials directly into appropriate laboratory containers. The samples were labeled, preserved on dry ice, and shipped to the AGEM Laboratory for sample preparation and VOCs analyses with modified EPA Methods 5030B and 8260B.

The surface water and sediment analysis results are presented and discussed in Section 3.3.

## 2.4 Vegetation Sampling and Analyses

Vegetation sampling has been proven to provide an accurate indication of contaminants in near-surface groundwater; it is used at Morrill and at other CCC/USDA sites for tracking the movement of carbon tetrachloride plumes through the uptake of the contaminant into tree and vegetation tissue. The sampling at Morrill serves as an early warning for potential movement of carbon tetrachloride into Terrapin Creek, downgradient from the former CCC/USDA facility.

Vegetation samples are collected at locations within the contaminant plume and along Terrapin Creek and its tributaries south and southwest of the former CCC/USDA facility. Vegetation sampling locations, which have expanded over time, have been selected along the apparent direction of groundwater flow from the former facility. Vegetation samples were collected at 18 locations in July 2007 (Argonne 2008a), at 25 locations in July 2008 (Argonne 2009), and at 22 locations in August 2009 (Argonne 2010). In July 2010, during the current reporting period, branch tissue samples were collected at 42 locations from mature ash, cottonwood, elm, hackberry, juniper, maple, mulberry, oak, Osage orange, pear, pine, walnut, and willow trees.

Figure 2.2 illustrates the locations of the vegetation sampling conducted on July 27-28, 2010. The sequence of sampling activities, including descriptions of sample locations and identifications of the trees sampled, is summarized in Table A.1, Appendix A. Analytical results are presented and discussed in Section 3.4.

The tree tissue samples were collected in appropriate laboratory containers, labeled, preserved on dry ice, and shipped to the AGEM Laboratory for carbon tetrachloride and chloroform analyses by a headspace technique based on a modification of EPA Method 5021 (<http://www.epa.gov/epahome/index/>; Alvarado and Rose 2004).

## **2.5 Indoor Air Sampling and Analyses**

At the request of the KDHE (2009a,b), a work plan for indoor air sampling was submitted and approved (KDHE 2010b) in spring 2010. The scope of the plan involved the collection of indoor air samples in structures directly overlying or within 100 ft laterally of the identified carbon tetrachloride plume emanating from the former CCC/USDA facility at Morrill. The depths to groundwater in this area are generally 40 ft BGL or less. An ambient air sample was also collected.

The purpose of the indoor air sampling was to assess the risk to human health due to potential upward migration of vapors of carbon tetrachloride and its degradation products into potentially affected homes. The investigation of vapor intrusion was not a defined objective at the time of Argonne's previous investigations, which predated issuance of the KDHE's vapor intrusion guidance (KDHE 2007c).

The KDHE-approved work plan for the indoor air sampling is in Appendix B. The KDHE (2010a) allowed the use of its internal procedure BER-33 (KDHE 2000) for this sampling event and another at Everest, Kansas. Samples were collected in 24-hr canisters on August 11-12, 2010, and were analyzed for carbon tetrachloride and chloroform by EPA Method TO-15 at TestAmerica Laboratories, Inc., South Burlington, Vermont. Sampling for radon was also conducted by using sampling kits and analysis provided through the National Radon Program Services at Kansas State University. The locations of the seven homes, one church, and one business sampled are shown in Figure 2.3. The results are discussed in Section 3.5.

## **2.6 Handling and Disposal of Investigation-Derived Waste**

The small volume of purge water generated as potentially contaminated investigation-derived waste was containerized on-site. The accumulated purge water was sampled and analyzed for VOCs (including ethylene dibromide) and nitrates by a KDHE-certified laboratory

(Pace Analytical Services, Lenexa, Kansas). The analytical results (Supplement 1, on the compact disc [CD] inside the back cover of this report) indicated no detectable concentrations of carbon tetrachloride, chloroform, ethylene dibromide, or nitrate. On December 17, 2010, the wastewater was received at the Sabetha municipal water treatment facility for disposal.

## 2.7 Quality Control for Sample Collection, Handling, and Analysis

The quality control/quality assurance procedures followed during the 2010 monitoring events are described in detail in the *Master Work Plan* (Argonne 2002) and SOP AGEM-15 (Appendix B in Argonne 2010). These procedures 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 were analyzed within the required holding times.
- Quality control samples (a field blank, equipment rinsates, and trip blanks) collected to monitor sample collection and handling activities were free of carbon tetrachloride contamination. Method blanks used to monitor analytical methodologies were free of carbon tetrachloride and chloroform contamination. Analytical results for quality control samples collected to monitor sample-handling activities are in Appendix C, Table C.1.
- Groundwater, surface water, and sediment samples were analyzed for VOCs at the AGEM Laboratory with the purge-and-trap method on a gas chromatograph-mass spectrometer system. Calibration checks with each sample delivery group were within the required range of  $\pm 20\%$  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. The low relative percent difference



(RPD) values for duplicate analyses of selected samples (approximately 3%) demonstrated consistency in the analytical methodology. Results for dual analyses at the AGEM Laboratory are in Appendix C, Table C.2.

- In accordance with the procedures defined in the *Master Work Plan* (Argonne 2002), the analyses of water samples at the AGEM Laboratory were verified by a second laboratory. Groundwater samples collected during each of the 2010 monitoring events were also submitted to TestAmerica for analysis according to the EPA's Contract Laboratory Program methodology. Complete analytical results for seven groundwater samples and a trip blank collected in April 2010 are in sample delivery group 136730 in Supplement 2 (on CD). Complete analytical results for five groundwater samples and one trip blank collected in September 2010 are in sample delivery group 200-1702 in Supplement 2 (on CD). The results are summarized in Appendix C, Table C.3. Good agreement is evident over the range of contaminant concentrations detected, with average RPD values of 13% for carbon tetrachloride and 8% for chloroform.
- Vegetation samples were analyzed for carbon tetrachloride and chloroform at the AGEM Laboratory by using a gas chromatograph with electron capture detection to achieve the low detection limits required. An 11-point calibration of the gas chromatograph system was established on the basis of the mass of known quantities of carbon tetrachloride and chloroform.
- Indoor air samples were analyzed for carbon tetrachloride and chloroform at TestAmerica with EPA Method TO-15. Initial and continuing calibration standards met the 30% difference criterion, and each of the analyses exhibited acceptable internal standard performance. Acceptable recovery of target analytes was achieved in a laboratory control sample. The method blank associated with the sample delivery group was free of contamination by the analytes of interest.

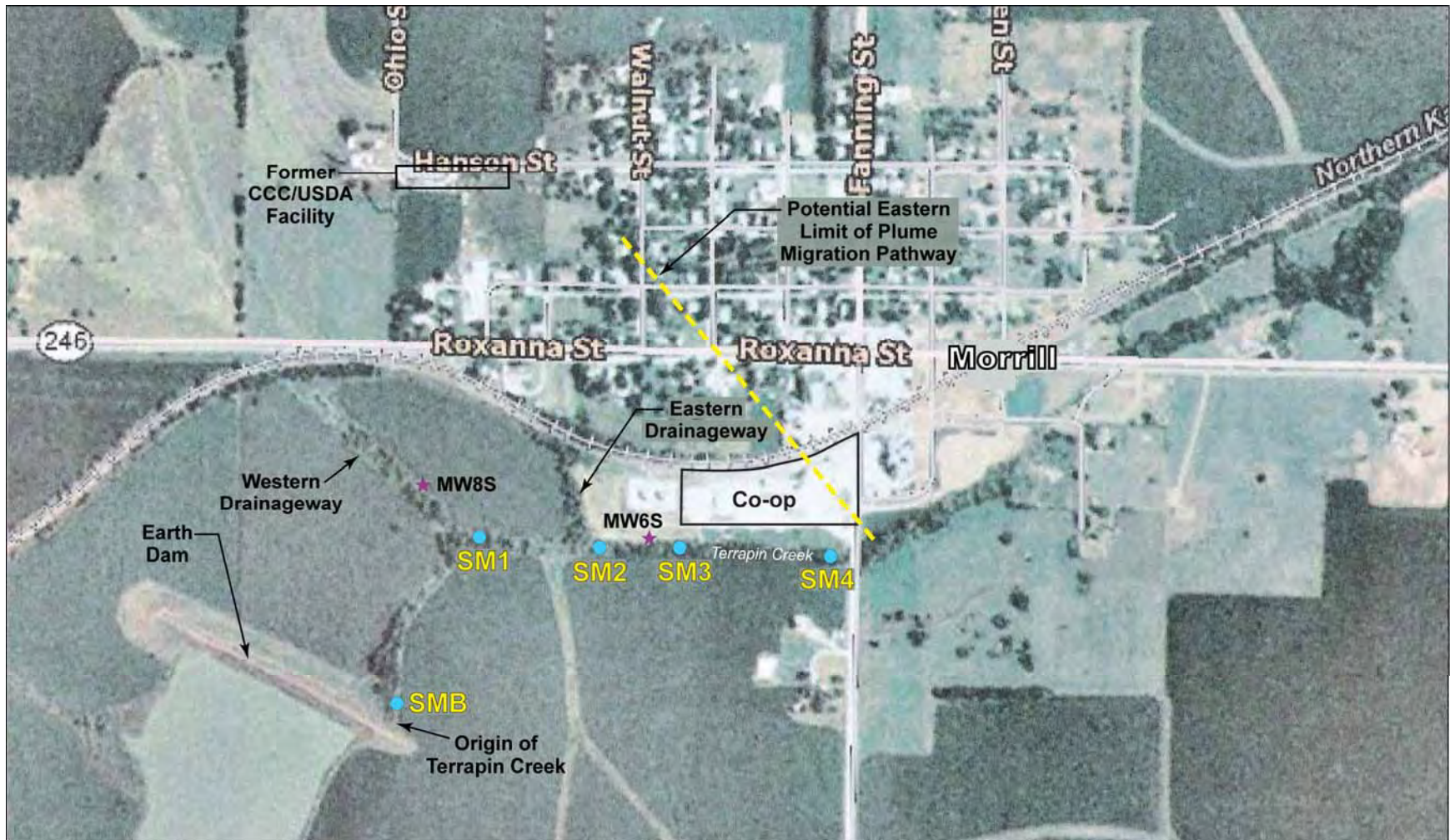


FIGURE 2.1 Locations of surface water and creek bed sediment sampling along Terrapin Creek at Morrill in September 2010.



FIGURE 2.2 Locations of native vegetation sampling downgradient of the former CCC/USDA facility and along Terrapin Creek at Morrill in July 2010.



FIGURE 2.3 Locations of indoor air sampling downgradient of the former CCC/USDA facility in August 2010.

### 3 Results and Discussion

#### 3.1 Groundwater Level Data

Depths to groundwater were measured manually in all available monitoring wells on April 28, 2010, and October 1, 2010. These hand-measured water level data, along with hand-measured levels from the April 6-7, 2010, and September 22-23, 2010, sampling events, are in Table 3.1.

Estimates of the potentiometric surface at Morrill in previous monitoring reports have persistently shown low water levels at location MW11S, empirically suggesting the apparent presence of a groundwater “sink” southwest of the former facility and in the vicinity of this monitoring well. This observation is likely an artifact associated with the greater depth of completion of well MW11S in the aquifer unit and the local groundwater flow system (both horizontal and vertical) at this location, relative to nearby wells MW3S, MW4S, and MW7S. To eliminate this influence on the interpreted groundwater flow directions, the estimated potentiometric surfaces presented in Figures 3.1a-b for April 28, 2010, and October 1, 2010, respectively, were generated by excluding the anomalous water level measurements from well MW11S.

Groundwater flow during the early spring (April 28; Figure 3.1a) and the fall (October 1; Figure 3.1b) was predominantly to the south, from the vicinity of the former CCC/USDA facility toward Terrapin Creek. A slight shift toward the southwest in the immediate vicinity of the intermittent tributary that flows into Terrapin Creek (directly south of the former CCC/USDA facility) is apparent in conjunction with significantly higher groundwater levels in the potentiometric surface for April 28 (Figure 3.1a).

Hydrographs recorded in 2009-2010 for the Morrill monitoring wells (Figures 3.2a and 3.2b) illustrate that the observed May 2009 and March 2010 rises in water levels reflect seasonal responses to spring precipitation and recharge, followed by generally declining groundwater levels during the remainder of each year. Similar seasonal responses have been observed annually (to varying extents) throughout Argonne’s investigations at the Morrill site.

The hydrographs in Figures 3.2a and 3.2b for monitoring well MW6S are marked by a series of sharp downward “spikes” in the water level at this location during July and August of

both 2009 and 2010. The observed events are believed to reflect transient drawdown in response to pumping of the Grimm irrigation well (location TD12), which was installed just south of the MW6S location in March 2008 (Argonne 2008b). Little or no distinct response to the pumping of this well is apparent at the other monitoring well locations; however, the operation of the Grimm well empirically coincides with the decline in water levels observed at all locations in the summer and fall of 2009 and 2010. A similar seasonal decline in water levels was also observed at Morrill in summer and fall 2007, in the absence of the Grimm well pumping, suggesting that spring precipitation and recharge represent the predominant factors affecting the local groundwater level patterns at Morrill.

### 3.2 Groundwater Analysis Results

The analytical data for VOCs in the groundwater samples collected in April and September 2010 are in Table 3.2, together with data for the previous sampling events conducted under the KDHE-approved monitoring plan (Argonne 2005b). The results of field measurements on the groundwater samples are in Table 3.3. The April and September 2010 data for carbon tetrachloride in groundwater are illustrated in Figures 3.3a and 3.3b, respectively. For comparison, the results of the groundwater sampling performed in April and September 2009 are in Figures 3.4a and 3.4b, respectively.

In April 2010 (Figure 3.3a), carbon tetrachloride was detected at 8 of the 15 monitoring locations, at concentrations ranging from  $< 1 \mu\text{g/L}$  at the Stone and Rilinger private wells to a maximum of  $38 \mu\text{g/L}$  at well MW11S. Low levels of chloroform ( $< 1\text{-}1.2 \mu\text{g/L}$ ) were detected in four wells (Table 3.2).

In September 2010 (Figure 3.3b), carbon tetrachloride was again detected at 8 of the 15 monitoring locations, at concentrations ranging from  $< 1 \mu\text{g/L}$  (in the Stone private well) to a maximum of  $47 \mu\text{g/L}$  at well MW3S. Low levels of chloroform ( $< 1 \mu\text{g/L}$  to a maximum of  $9.4 \mu\text{g/L}$  at MW5S) were detected in six wells (Table 3.2).

The results in Table 3.2, Figures 3.3a,b, and Figures 3.4a,b indicate that no significant changes were observed in the concentrations or distribution of carbon tetrachloride in the groundwater at Morrill during the 2010 review period, or in comparison to the results of the spring and fall 2009 monitoring events.

### 3.3 Surface Water and Sediment Analysis Results

Table 3.4 presents the results of VOCs analyses of the surface water and shallow sediment samples collected (at the request of the KDHE [2007a]) along Terrapin Creek. No carbon tetrachloride was detected in the surface water samples (locations shown in Figure 2.1) at an analytical method detection limit of 0.1 µg/L. Similarly, no carbon tetrachloride was identified in the associated sediment samples at an analytical method detection limit of 1.0 µg/kg. The 2010 results therefore indicate that the surface waters and underlying sediments of Terrapin Creek remain uncontaminated by carbon tetrachloride.

### 3.4 Vegetation Analysis Results and Observations

The July 2008 vegetation sampling event involved an expansion of the database to include locations at and directly downgradient from the former CCC/USDA facility (locations MR019 to MR024; Figure 2.2). Essentially the same locations were sampled in August 2009. The sampling area was expanded further in July 2010 to verify the assumed potential for identification of the plume extending from the former facility and toward Terrapin Creek, on the basis of evidence of contaminant uptake in vegetation. This proven methodology has been successful at other CCC/USDA sites.

Analytical data for carbon tetrachloride and chloroform in tree branch samples collected in July 2010 (and in previous years) are shown in Table 3.5. In the July 2010 sampling, trace concentrations of carbon tetrachloride were identified at 3 of 42 locations sampled (MR031, MR041, and MR044; Figure 3.5). The analytical method detection limit was 0.1 µg/kg.

Sampling at Morrill and elsewhere has demonstrated that carbon tetrachloride can be taken up seasonally — at detectable levels — in tissues of trees whose roots intercept low concentrations of carbon tetrachloride in groundwater. We hypothesize that the low concentrations in groundwater along the contaminant plume extending toward Terrapin Creek are sufficient for uptake by the trees. The low-level detections in vegetation are consistent with the observation, at other sites, that vegetation sampling is a valuable early indicator of plume expansion, and they validate the assumption made in areal expansion of the vegetation sampling effort at Morrill.

### **3.5 Indoor Air Analysis Results**

Table 3.6 summarizes the analytical results for the indoor air samples collected at selected residences and buildings located downgradient of the former CCC/USDA grain storage facility. Carbon tetrachloride was not detected in any of the samples collected. Chloroform was detected at levels consistent with indoor air sources such as use of chlorinated water and household cleaning products. No evidence of upward migration of vapors from the low-level contaminant groundwater plume to indoor air is therefore indicated. The results for carbon tetrachloride are illustrated in Figure 3.6. Analytical results from TestAmerica for carbon tetrachloride and chloroform in indoor air samples are in Supplement 4 (on CD).

Indoor air samples were also analyzed for radon by using sampling kits and analysis provided through the National Radon Program Services at Kansas State University. Analytical results from the Kansas State University program are also in Supplement 4.

### **3.6 Comparison of Analytical Results for Samples Collected after Low-Flow Purging and after Purging of Three Well Volumes**

At the request of the KDHE (2008a), selected wells were sampled in October 2008 by using both the low-flow purging technique and the three-well-volume purging technique to confirm the suitability of the low-flow method for groundwater sampling at Morrill. Of particular concern was the applicability of the low-flow method for the wells installed by the KDHE in 1995, with screen intervals of 30-40 ft. As reported previously (Argonne 2009), in October 2008 samples were collected by both methods from wells MW1S, MW2S, and MW3S (installed by the KDHE in 1995 with 30- to 40-ft screens), as well as from well MW11S (installed by Argonne in 2004 with a 15-ft screen). Result for all pairs except the MW1S samples compared favorably; the low-flow results for well MW1S were dramatically lower than three-volume-purge results. Low-flow results for MW1S in October 2008 were therefore considered non-representative, and the value for the sample obtained after purging of three well volumes was honored instead (Argonne 2009). Sampling conducted in later years has continued this evaluation of the suitability of the low-flow sampling method.

In April 2010, monitoring well MW1S was sampled three times by using the low-flow method, with the intake pump positioned at three distinct depths — near the bottom, middle, and top of the screened interval. Carbon tetrachloride was not detected in any of the samples. For



comparison, a sample was subsequently collected after purging of three well volumes. In that sample, carbon tetrachloride was detected at 21  $\mu\text{g/L}$ . The observed concentration differences between methods reflect hydraulic and/or contaminant flow properties that result in higher concentrations in three-well-volume samples than in low-flow samples from any of the depths sampled.

In September 2010, when water levels were significantly reduced across the site, sampling of well MW1S with the low-flow procedure (with the pump positioned near the middle of the screen) resulted in a carbon tetrachloride detection at 1.6  $\mu\text{g/L}$ . Further multi-depth low-flow or no-purge sampling could improve understanding of the contaminant and groundwater flow conditions and might suggest a more suitable low-flow sampling depth that would provide representative analytical results.

TABLE 3.1 Hand-measured groundwater levels at Morrill in 2010.

Well	Top of Casing Elevation (ft AMSL)	April 6-7, 2010		April 28, 2010		September 22-23, 2010		October 1, 2010	
		Depth to Water (ft BGL)	Groundwater Elevation (ft AMSL)	Depth to Water (ft BGL)	Groundwater Elevation (ft AMSL)	Depth to Water (ft BGL)	Groundwater Elevation (ft AMSL)	Depth to Water (ft BGL)	Groundwater Elevation (ft AMSL)
MW1S	1124.68	11.65	1113.03	16.09	1108.59	19.89	1104.79	23.05	1101.63
MW1D	1124.63	24.70	1099.93	28.10	1096.53	27.92	1096.71	30.90	1093.73
MW2S	1137.07	18.57	1118.50	22.30	1114.77	31.25	1105.82	32.02	1105.05
MW3S	1135.76	12.14	1123.62	16.36	1119.40	23.73	1112.03	24.61	1111.15
MW4S	1143.61	21.80	1121.81	25.37	1118.24	33.15	1110.46	33.75	1109.86
MW5S	1122.21	8.32	1113.89	10.39	1111.82	19.25	1102.96	20.16	1102.05
MW6S	1090.97	6.15	1084.82	5.19	1085.78	5.53	1085.44	5.38	1085.59
MW7S	1119.86	6.38	1113.48	8.30	1111.56	14.15	1105.71	14.63	1105.23
MW8S	1098.53	1.10	1097.43	0.60	1097.93	2.53	1096.00	2.85	1095.68
MW9S	1118.31	16.50	1101.81	16.96	1101.35	21.15	1097.16	21.23	1097.08
MW10S	1110.78	7.50	1103.28	8.85	1101.93	11.69	1099.09	12.43	1098.35
MW11S	1133.08	29.45	1103.63	30.51	1102.57	34.75	1098.33	25.63	1107.45

TABLE 3.2 Results of analyses at the AGEM Laboratory for volatile organic compounds in groundwater samples collected at Morrill, October 2003 to September 2010. Shading indicates sample collection with the low-flow procedure.

Location	Screen Interval (ft BGL)	Sample Date	Depth to Water (ft TOC) <sup>a</sup>	Depth of well (ft TOC) <sup>a</sup>	Volume Purged	Purge Units	Pump Intake Position (ft BGL)	Concentration (µg/L)			Comment	Sample
								Carbon Tetrachloride	Chloroform	Methylene Chloride		
MW1S	11-51	10/23/03	30.36	54.04	70	gal	–	33	1.6	ND <sup>b</sup>		MRMW1S-W-16422
MW1S	11-51	6/2/04	26.97	53.94	53	gal	–	19	0.9	ND		MRMW1S-W-16461
MW1S	11-51	9/13/05	24.16	53.9	57	gal	–	35	1.7	ND		MRMW1S-W-19259
MW1S	11-51	3/22/06	29	53.95	48	gal	–	40	1.8	ND		MRMW1S-W-20008
MW1S	11-51	9/20/06	26.82	53.97	55	gal	–	23	0.9 J <sup>c</sup>	ND		MRMW1S-W-22495
MW1S	11-51	3/21/07	25.8	53.98	55	gal	–	23	1.1	ND		MRMW1S-W-16488
MW1S	11-51	10/1/07	21.65	53.95	63	gal	–	56	2.7	ND		MRMW1S-W-16595
MW1S	11-51	4/14/08	16.2	54	5.5	L	–	0.3 J	ND	ND	April monitoring.	MRMW1S-W-23230
MW1S	11-51	4/22/08	16	54	6.25	L	–	0.2 J	ND	ND	Confirm low carbon tetrachloride.	MRMW1S-W-23259
MW1S	11-51	5/1/08	–	–	3.24	L	22	ND	ND	ND	Top of screen.	MRMW1S-22-W-23275
MW1S	11-51	5/1/08	–	–	3.24	L	27	ND	ND	ND	Middle of screen.	MRMW1S-27-W-23276
MW1S	11-51	5/1/08	–	–	4.25	L	48	0.3 J	ND	ND	Bottom of screen.	MRMW1S-48-W-23277
MW1S	11-51	10/20/08	25.8	54	6	L	31	0.7 J	ND	ND	Low flow.	MRMW1S-W-27620
MW1S	11-51	10/21/08	–	–	–	–	–	35	1.8	ND	Full purge.	MRMW1S-W-27649
MW1S	11-51	4/24/09	24.4	54	5	L	39.2	ND	ND	ND		MRMW1S-W-27652
MW1S	11-51	9/3/09	19	54	8	L	35	ND	ND	ND	Low flow.	MRMW1S-W-29942
MW1S	11-51	9/4/09	19.3	51.2	244	L	50	34	1.7	ND	Three well volumes.	MRMW1S-W-29971
MW1S	11-51	4/7/10	11.65	51.3	7	L	16.6	ND	ND	ND	Top of screen.	MRMW1ST-W-29981
MW1S	11-51	4/7/10	11.57	51.31	6	L	31.5	ND	ND	ND	Middle of screen.	MRMW1SM-W-29980
MW1S	11-51	4/7/10	11.65	51.31	6	L	46.3	ND	ND	ND	Bottom of screen.	MRMW1SB-W-29979
MW1S	11-51	4/7/10	11.48	51.3	80	gal	49	21	1.2	ND	Three well volumes.	MRMW1S3X-W-29982
MW1S	11-51	9/22/10	19.89	54	10	L	31	1.6	ND	ND	Low flow.	MRMW1S-W-30010
MW1D	63-88	10/22/03	28.39	88.5	92	gal	–	ND	ND	ND		MRMW1D-W-16421
MW1D	63-88	6/2/04	26.82	88.6	140	gal	–	ND	ND	ND		MRMW1D-W-16458
MW1D	63-88	9/13/05	23.72	88.6	200	gal	–	ND	ND	ND		MRMW1D-W-16518
MW1D	63-88	3/19/06	26.85	88.6	112	gal	–	ND	ND	0.4 J B <sup>d</sup>		MRMW1D-W-19986
MW1D	63-88	9/20/06	25.52	88.8	125	gal	–	ND	ND	ND		MRMW1D-W-16532
MW1D	63-88	3/21/07	25.79	88.8	125	gal	–	ND	ND	ND		MRMW1D-W-16487
MW1D	63-88	10/1/07	22.75	89.38	130	gal	–	ND	ND	ND		MRMW1D-W-16596
MW1D	63-88	4/14/08	29.51	89	6	L	–	ND	ND	ND		MRMW1D-W-23231
MW1D	63-88	10/20/08	30.4	89	7	L	75.5	ND	ND	ND		MRMW1D-W-27621
MW1D	63-88	4/24/09	31	89	7	L	75.5	ND	ND	ND		MRMW1D-W-27653
MW1D	63-88	9/3/09	27.05	89	6.5	L	75.5	ND	ND	ND		MRMW1D-W-29943
MW1D	63-88	4/6/10	24.7	89	8.5	L	75.5	ND	ND	ND		MRMW1D-W-29983
MW1D	63-88	9/22/10	27.92	89	9	L	75.5	ND	ND	ND		MRMW1D-W-30011
MW2S	13-53	10/22/03	42.21	53.35			Purged dry, sampled.	ND	ND	ND		MRMW02-W-16419
MW2S	13-53	6/2/04	37.44	53.3	31	gal	–	ND	ND	ND		MRMW2S-W-16459
MW2S	13-53	9/14/05	33.68	53.33	38	gal	–	ND	ND	ND		MRMW2S-W-19264
MW2S	13-53	3/21/06	40.87	53.32	27	gal	–	ND	ND	ND		MRMW2S-W-19992
MW2S	13-53	9/18/06	36.53	53.3	28	gal	–	ND	ND	ND		MRMW2S-W-22488
MW2S	13-53	3/22/07	35.77	53.3	35	gal	–	ND	ND	ND		MRMW2S-W-16559

TABLE 3.2 (Cont.)

Location	Screen Interval (ft BGL)	Sample Date	Depth to Water (ft TOC) <sup>a</sup>	Depth of well (ft TOC) <sup>a</sup>	Volume Purged	Purge Units	Pump Intake Position (ft BGL)	Concentration (µg/L)			Comment	Sample
								Carbon Tetrachloride	Chloroform	Methylene Chloride		
MW2S	13-53	10/3/07	31.17	53.4	44	gal	–	ND	ND	ND		MRMW2S-W-16587
MW2S	13-53	4/15/08	23.55	53.4	2.22	L	–	ND	ND	ND		MRMW2S-W-23232
MW2S	13-53	10/21/08	33.7	53.5	5	L	33	ND	ND	ND	Low flow.	MRMW2S-W-27622
MW2S	13-53	10/21/08	–	–	–	–	–	ND	ND	ND	Full purge.	MRMW2S-W-27652
MW2S	13-53	4/23/09	33.2	53.5	6.5	L	43.35	ND	0.6 J	ND		MRMW2S-W-27654
MW2S	13-53	9/23/09	29.4	53.5	5.4	L	41.2	ND	ND	ND		MRMW2S-W-29944
MW2S	13-53	4/6/10	18.57	52.42	6.5	L	36	ND	ND	ND		MRMW2S-W-29984
MW2S	13-53	9/22/10	31.25	53	7	L	33	ND	ND	ND		MRMW2S-W-30012
MW3S	18-48	10/23/03	36.47	47.79	73	gal	–	89	2.7	ND		MRMW03-W-16423
MW3S	18-48	6/2/04	30.67	47.5	34	gal	–	110	3.2	ND		MRMW3S-W-16462
MW3S	18-48	9/13/05	25.6	47.6	50	gal	–	101	3.2	ND		MRMW3S-W-19261
MW3S	18-48	3/23/06	35.62	47.74	28	gal	–	91	2.6	ND		MRMW3S-W-19994
MW3S	18-48	9/20/06	29.44	47.75	22	gal	–	49	1.5	ND		MRMW3S-W-22496
MW3S	18-48	3/22/07	26.19	47.75	45	gal	–	84	2.3	ND		MRMW3S-W-16563
MW3S	18-48	10/3/07	22.7	47.9	50	gal	–	61	2.0	ND		MRMW3S-W-16585
MW3S	18-48	4/14/08	16.95	47.8	3.31	L	–	8.2	0.4 J	ND	April monitoring.	MRMW3S-W-23233
MW3S	18-48	4/22/08	15.8	47.8	6.5	L	–	0.7 J	ND	ND	Confirm low carbon tetrachloride.	MRMW3S-W-23260
MW3S	18-48	5/1/08	–	–	2.62	L	26	0.4 J	ND	ND	Vary pump intake.	MRMW3S-26-W-23269
MW3S	18-48	5/1/08	–	–	2.75	L	38	0.4 J	ND	ND	Vary pump intake.	MRMW3S-38-W-23270
MW3S	18-48	5/1/08	–	–	3.17	L	45	0.5 J	ND	ND	Vary pump intake.	MRMW3S-45-W-23271
MW3S	18-48	10/21/08	27	47.8	4.2	L	33	55	1.4	ND	Low flow.	MRMW3S-W-27623
MW3S	18-48	10/21/08	–	–	–	–	–	63	1.6	ND	Full purge.	MRMW3S-W-27650
MW3S	18-48	4/23/09	26.7	47.8	5	L	37.3	29	1.4	ND		MRMW3S-W-27655
MW3S	18-48	9/3/09	22.4	47.8	5.5	L	35.2	30	1.1	ND	Low flow.	MRMW3S-W-29945
MW3S	18-48	9/4/09	22.55	47.8	190	L	46	28	0.9 J	ND	Three well volumes.	MRMW3S-W-29972
MW3S	18-48	4/6/10	12.14	47.8	6	L	33	3.5	0.2 J	ND		MRMW3S-W-29985
MW3S	18-48	9/23/10	23.73	47.8	7	L	33	47	1.6	ND		MRMW3S-W-30013
MW4S	17-47	10/21/03	46.4	47.8	Purged dry, sampled.			ND	ND	ND		MRMW04-W-16418
MW4S	17-47	6/4/04	43.21	47.8	10	gal	–	ND	ND	ND		MRMW4S-W-16470
MW4S	17-47	9/14/05	36.21	47.81	8	gal	–	ND	ND	ND		MRMW4S-W-19262
MW4S	17-47	3/21/06	44.55	47.72	6	gal	–	ND	ND	ND		MRMW4S-W-19993
MW4S	17-47	9/18/06	41.56	47.75	5.25	gal	–	ND	ND	ND		MRMW4S-W-22487
MW4S	17-47	3/22/07	38.74	47.75	6	gal	–	ND	ND	ND		MRMW4S-W-16562
MW4S	17-47	10/3/07	31.11	47.73	30	gal	–	0.5 J R <sup>e</sup>	ND	ND		MRMW4S-W-16586
MW4S	17-47	1/11/08	–	–	–	–	–	ND	ND	ND		MOMW4S-W-011108
MW4S	17-47	4/14/08	26.32	47.85	2.48	L	–	ND	ND	ND		MRMW4S-W-23234
MW4S	17-47	10/20/08	36.7	47.8	8	gal	–	ND	ND	ND		MRMW4S-W-27624
MW4S	17-47	4/23/09	41.5	47.8	5	L	44.65	ND	ND	ND		MRMW4S-W-27656
MW4S	17-47	9/4/09	31.6	47.8	6	L	39.3	ND	ND	ND		MRMW4S-W-29946
MW4S	17-47	4/6/10	21.8	47.85	5.5	L	34.83	ND	ND	ND		MRMW4S-W-29986
MW4S	17-47	9/22/10	33.15	47.8	6	L	32	ND	ND	ND		MRMW4S-W-30014
MW5S	15-55	10/22/03	31.4	55.72	48	gal	–	5.8	ND	ND		MRMW05-W-16420
MW5S	15-55	6/2/04	26.33	55.65	> 57	gal	–	7.0	ND	ND		MRMW5S-W-16460

TABLE 3.2 (Cont.)

Location	Screen Interval (ft BGL)	Sample Date	Depth to Water (ft TOC) <sup>a</sup>	Depth of well (ft TOC) <sup>a</sup>	Volume Purged	Purge Units	Pump Intake Position (ft BGL)	Concentration (µg/L)			Comment	Sample
								Carbon Tetrachloride	Chloroform	Methylene Chloride		
MW5S	15-55	9/13/05	22.66	54.2	75	gal	-	6.3	0.2 J	ND		MRMW5S-W-19260
MW5S	15-55	3/22/06	28.64	54.51	50	gal	-	7.3	0.2 J	ND		MRMW5S-W-19996
MW5S	15-55	9/20/06	25.43	54.63	52	gal	-	6.4	0.3 J	ND		MRMW5S-W-22493
MW5S	15-55	3/22/07	25.14	54.56	58	gal	-	6.5	0.4 J	ND		MRMW5S-W-16569
MW5S	15-55	10/3/07	19.55	54.65	68	gal	-	4.0	0.3 J	ND		MRMW5S-W-16588
MW5S	15-55	4/14/08	11.2	54.6	6	L	-	ND	ND	ND	April monitoring.	MRMW5S-W-23235
MW5S	15-55	4/23/08	11.3	54.6	6.5	L	-	ND	ND	ND	Confirm low carbon tetrachloride.	MRMW5S-W-23266
MW5S	15-55	5/1/08	-	-	3.7	L	20	ND	ND	ND	Vary pump intake.	MRMW5S-20-W-23272
MW5S	15-55	5/1/08	-	-	3.4	L	28	ND	ND	ND	Vary pump intake.	MRMW5S-28-W-23273
MW5S	15-55	5/1/08	-	-	4	L	52	ND	ND	ND	Vary pump intake.	MRMW5S-52-W-23274
MW5S	15-55	10/21/08	22.5	54.6	7	L	35	1.7	ND	ND		MRMW5S-W-27625
MW5S	15-55	4/24/09	22.1	54.6	5.5	L	38.35	ND	ND	ND		MRMW5S-W-27657
MW5S	15-55	9/3/09	17.6	54.6	5.5	L	36.3	ND	ND	ND		MRMW5S-W-29947
MW5S	15-55	4/7/10	8.32	54.5	5.5	L	35	ND	ND	ND		MRMW5S-W-29987
MW5S	15-55	9/22/10	19.25	55	6.5	L	35	ND	9.4	ND		MRMW5S-W-30015
MW6S	10-25	6/3/04	3.34	26.9	45	gal	-	ND	ND	ND		MRMW6S-W-16465
MW6S	10-25	9/14/05	4.7	26.9	43	gal	-	ND	ND	ND		MRMW6S-W-19263
MW6S	10-25	3/20/06	5.35	26.91	43	gal	-	ND	ND	ND		MRMW6S-W-19990
MW6S	10-25	9/18/06	5.48	26.92	27	gal	-	ND	ND	ND		MRMW6S-W-22486
MW6S	10-25	3/21/07	5.42	26.92	30	gal	-	ND	ND	ND		MRMW6S-W-16486
MW6S	10-25	10/2/07	5	26.9	31	gal	-	ND	ND	ND		MRMW6S-W-16583
MW6S	10-25	4/15/08	5.15	26.9	2.5	L	-	ND	ND	ND		MRMW6S-W-23236
MW6S	10-25	10/20/08	5.7	26.9	5	L	17.5	ND	ND	ND		MRMW6S-W-27626
MW6S	10-25	4/24/09	6.2	26.9	12	L	17.5	ND	ND	ND		MRMW6S-W-27658
MW6S	10-25	9/4/09	5.85	26.9	5.4	L	17.5	ND	ND	ND		MRMW6S-W-29948
MW6S	10-25	4/6/10	6.15	26.9	8	L	17.5	ND	ND	ND		MRMW6S-W-29988
MW6S	10-25	9/22/10	5.53	26.9	8.75	L	17.5	ND	ND	ND		MRMW6S-W-30016
MW7S	20-45	6/3/04	26.68	46.98	40	gal	-	18	ND	ND		MRMW7S-W-16466
MW7S	20-45	9/12/05	17.57	46.94	55	gal	-	43	1.1	ND		MRMW7S-W-19258
MW7S	20-45	3/22/06	22.45	46.98	48	gal	-	21	0.4 J	ND		MRMW7S-W-20000
MW7S	20-45	9/19/06	20.94	47.02	56	gal	-	38	0.7 J	ND		MRMW7S-W-22490
MW7S	20-45	3/20/07	18.01	47.02	50	gal	-	16	0.4 J	ND		MRMW7S-W-16481
MW7S	20-45	10/1/07	12.4	47	70	gal	-	8.1	0.2 J	ND		MRMW7S-W-16581
MW7S	20-45	4/14/08	7.72	47	1.82	L	-	10	0.3 J	ND		MRMW7S-W-23237
MW7S	20-45	4/23/08	7.8	47	11	L	-	8.3	0.2 J	ND		MRMW7S-W-23265
MW7S	20-45	10/20/08	17.2	47	6.3	L	32.5	7.9	ND	ND		MRMW7S-W-27627
MW7S	20-45	4/23/09	16.7	47	7	L	32.5	9.5	ND	ND		MRMW7S-W-27659
MW7S	20-45	9/3/09	13.8	47	9	L	32.5	8.0	ND	ND		MRMW7S-W-29949
MW7S	20-45	4/6/10	6.38	47	5.4	L	32.5	15	0.4 J	ND		MRMW7S-W-29989
MW7S	20-45	9/23/10	14.15	45	6	L	32.5	6.6	ND	ND		MRMW7S-W-30017
MW8S	10-25	6/3/04	3.7	26.75	45	gal	-	ND	ND	ND		MRMW8S-W-16464
MW8S	10-25	9/14/05	4.02	26.82	57	gal	-	0.9 J	ND	ND		MRMW8S-W-19265
MW8S	10-25	3/20/06	4.57	26.41	43	gal	-	0.6 J	ND	0.4 J B		MRMW8S-W-19991

TABLE 3.2 (Cont.)

Location	Screen Interval (ft BGL)	Sample Date	Depth to Water (ft TOC) <sup>a</sup>	Depth of well (ft TOC) <sup>a</sup>	Volume Purged	Purge Units	Pump Intake Position (ft BGL)	Concentration (µg/L)			Comment	Sample
								Carbon Tetrachloride	Chloroform	Methylene Chloride		
MW8S	10-25	9/19/06	4.76	26.83	45	gal	-	1.3	ND	ND		MRMW8S-W-22492
MW8S	10-25	3/20/07	2.63	26.82	49	gal	-	0.6 J	ND	ND		MRMW8S-W-16483
MW8S	10-25	10/2/07	2.2	26.8	48	gal	-	0.8 J	ND	ND		MRMW8S-W-16584
MW8S	10-25	4/15/08	0.7	26.8	5.5	L	-	1.1	ND	ND		MRMW8S-W-23238
MW8S	10-25	10/20/08	3.6	26.8	8	L	17.5	1.3	ND	ND		MRMW8S-W-27628
MW8S	10-25	4/23/09	2.3	26.8	6	L	17.5	ND	ND	ND		MRMW8S-W-27660
MW8S	10-25	9/3/09	2.9	26.8	8.5	L	17.5	1.9	ND	ND		MRMW8S-W-29950
MW8S	10-25	4/6/10	1.1	26.8	8	L	17.5	1.7	ND	ND		MRMW8S-W-29990
MW8S	10-25	9/22/10	2.53	26.8	9	L	17.5	1.6	ND	ND		MRMW8S-W-30018
MW9S	38.83-53.83	3/22/06	20.2	58.62	20	gal	-	ND	ND	ND		MRMW9S-W-20004
MW9S	38.83-53.83	9/19/06	18.87	59	22	gal	-	ND	ND	ND		MRMW9S-W-22494
MW9S	38.83-53.83	3/20/07	16.69	59	22	gal	-	ND	ND	ND		MRMW9S-W-16480
MW9S	38.83-53.83	10/1/07	14	58.6	23	gal	-	ND	ND	ND		MRMW9S-W-16582
MW9S	38.83-53.83	4/14/08	16.58	58.63	2.29	L	-	0.8 J	ND	ND		MRMW9S-W-23239
MW9S	38.83-53.83	10/20/08	21.5	58.5	11	L	46.33	1.1	ND	ND		MRMW9S-W-27629
MW9S	38.83-53.83	4/23/09	21.9	58.5	5.5	L	46.33	1.0	ND	ND		MRMW9S-W-27661
MW9S	38.83-53.83	9/4/09	19.95	58.5	5	L	46.33	1.4	ND	ND		MRMW9S-W-29951
MW9S	38.83-53.83	4/6/10	16.5	58.5	6	L	46.33	1.9	ND	ND		MRMW9S-W-29991
MW9S	38.83-53.83	9/22/10	21.15	53.83	7	L	46.33	1.9	ND	ND		MRMW9S-W-30019
MW10S	30-45	3/21/06	12.3	49.6	19	gal	-	ND	ND	ND		MRMW10S-W-19999
MW10S	30-45	9/18/06	11.08	49.61	20	gal	-	ND	ND	ND		MRMW10S-W-22489
MW10S	30-45	3/21/07	10.77	49.61	20	gal	-	ND	ND	ND		MRMW10S-W-16485
MW10S	30-45	10/1/07	6.95	49.65	20	gal	-	ND	ND	ND		MRMW10S-W-16593
MW10S	30-45	4/14/08	9.82	49.7	1.9	L	-	ND	ND	ND		MRMW10S-W-23240
MW10S	30-45	10/20/08	13.7	49.7	5.4	L	37.5	ND	ND	ND		MRMW10S-W-27630
MW10S	30-45	4/23/09	13.6	45	7.5	L	37.5	ND	ND	ND		MRMW10S-W-27662
MW10S	30-45	9/3/09	12	49.7	7.5	L	37.5	ND	ND	ND		MRMW10S-W-29952
MW10S	30-45	4/6/10	7.5	49.7	9	L	37.5	ND	ND	ND		MRMW10S-W-29992
MW10S	30-45	9/22/10	11.69	49.7	11	L	37.5	ND	0.3 J	ND		MRMW10S-W-30020
MW11S	53-68	3/22/06	35.2	72.5	20	gal	-	39	0.9 J	ND		MRMW11S-W-20001
MW11S	53-68	9/19/06	36	73.14	20	gal	-	53	1.0	ND		MRMW11S-W-22491
MW11S	53-68	3/20/07	34.65	73.14	20	gal	-	37	0.8 J	ND		MRMW11S-W-16479
MW11S	53-68	10/1/07	31.55	73	20	gal	-	54	1.2	ND		MRMW11S-W-16594
MW11S	53-68	4/15/08	29.9	72.7	5.5	L	-	35	0.8 J	ND	April monitoring.	MRMW11S-W-23241
MW11S	53-68	4/22/08	30.2	72.7	7.2	L	-	42	0.9 J	ND	Confirm low carbon tetrachloride.	MRMW11S-W-23261
MW11S	53-68	10/20/08	37.1	72.7	9	L	60.5	42	0.9 J	ND	Low flow.	MRMW11S-W-27631
MW11S	53-68	10/21/08	-	-	-	-	-	45	0.9 J	ND	Full purge.	MRMW11S-W-27651
MW11S	53-68	4/23/09	38.1	72.7	5	L	60.5	46	1.0	ND		MRMW11S-W-27663
MW11S	53-68	9/3/09	34.7	72.7	7.5	L	60.5	39	0.9 J	ND	Low flow.	MRMW11S-W-29953
MW11S	53-68	9/4/09	34.95	72.7	72	L	67	41	0.9 J	ND	Three well volumes.	MRMW11S-W-29973
MW11S	53-68	4/6/10	29.45	72.7	6.5	L	60.5	38	1.0	ND		MRMW11S-W-29993
MW11S	53-68	9/23/10	34.75	72.7	7	L	60.5	28	1.0	ND		MRMW11S-W-30021

TABLE 3.2 (Cont.)

Location	Screen Interval (ft BGL)	Sample Date	Depth to Water (ft TOC) <sup>a</sup>	Depth of well (ft TOC) <sup>a</sup>	Volume Purged	Purge Units	Pump Intake Position (ft BGL)	Concentration (µg/L)			Comment	Sample
								Carbon Tetrachloride	Chloroform	Methylene Chloride		
Isch	–	2/19/04	–	–	Pump <sup>f</sup>	–	–	ND	ND	ND		MRJR-W-16502
Isch	–	9/14/05	–	–	Pump	–	–	ND	ND	ND		MRPRISCH-W-16513
Isch	–	3/23/06	–	–	20	gal	–	ND	ND	ND		MRISCH-W-19989
Isch	–	9/19/06	–	–	Pump	–	–	ND	ND	ND		MRISCH-W-16531
Isch	–	3/22/07	–	–	Pump	–	–	ND	ND	ND		MRISCH-W-16564
Isch	–	10/3/07	–	–	Pump	–	–	ND	ND	ND		MRISCH-W-16590
Isch	–	4/15/08	–	–	Pump	–	–	0.4 J	ND	ND		MRISCH-W-23242
Isch	–	4/22/08	–	–	Pump	–	–	ND	ND	ND		MRISCH-W-23262
Isch	–	10/21/08	–	–	Pump	–	–	ND	ND	ND		MRISCH-W-27632
Isch	–	4/22/09	–	–	Pump	–	–	ND	ND	ND		MRISCH-W-27664
Isch	–	9/2/09	–	–	Pump	–	–	ND	ND	ND		MRISCH-W-29954
Isch	–	4/7/10	–	–	Pump	–	–	ND	ND	ND		MRISCH-W-29994
Isch	–	9/22/10	–	–	Pump	–	–	ND	ND	ND		MRISCH-W-30022
Rillinger	–	6/4/04	–	–	Pump	–	–	ND	ND	ND		MRPRIVRIL-W-16471
Rillinger	–	9/14/05	–	–	Pump	–	–	2.6	0.1 J	ND		MRPRILL-W-16512
Rillinger	–	3/19/06	–	–	Pump	–	–	ND	ND	0.4 J B		MRRILLINGER-W-19988
Rillinger	–	9/19/06	–	–	Pump	–	–	ND	ND	ND		MRRILI-W-16530
Rillinger	–	3/29/07	–	–	Pump	–	–	1.3	1.1	ND		MRRILLINGER-W-16561
Rillinger	–	10/3/07	–	–	Pump	–	–	13 <sup>g</sup>	0.4 J	ND		MRRILLINGER-W-16591
Rillinger	–	10/8/07	–	–	Pump	–	–	0.4 J	ND	ND		MRRILLINGER-W-16592
Rillinger	–	1/11/08	–	–	Pump	–	–	6.2	0.5 J	ND		MORIL-W-11108
Rillinger	–	4/15/08	–	–	Pump	–	–	9.9	0.4 J	ND		MRRILLINGER-W-23243
Rillinger	–	10/21/08	–	–	Pump	–	–	0.9 J	ND	ND		MRRILLINGER-W-27633
Rillinger	–	4/22/09	–	–	Pump	–	–	1.2	ND	ND		MRRILLINGER-W-27665
Rillinger	–	9/2/09	–	–	Pump	–	–	1.0	ND	ND		MRRILLINGER-W-29955
Rillinger	–	4/7/10	–	–	Pump	–	–	0.8 J	ND	ND		MRRILLINGER-W-29995
Rillinger	–	9/22/10	–	–	Pump	–	–	1.3	ND	ND		MRRILLINGER-W-30023
Stone	43 <sup>h</sup>	6/4/04	23.35	–	Purged dry.	–	–	10	ND	ND		MRPRIVSTON-W-16475
Stone	43	9/14/05	17.18	40	–	–	–	2.6	0.3 J	ND		MRPRSTON-W-16511
Stone	43	3/19/06	17.42	40	100	gal	–	14	0.8 J	0.4 J B		MRSTONE-W-19987
Stone	43	9/19/06	18.55	38.8	41	gal	–	2.1	ND	ND		MRSTONE-W-16529
Stone	43	3/22/07	20.62	38.8	56	gal	–	5.4	0.3 J	ND		MRSTONE-W-16560
Stone	43	10/3/07	14.6	38.6	72	gal	–	2.8	ND	ND		MRSTONE-W-16589
Stone	43	4/15/08	–	38.86	–	–	–	0.9 J	ND	ND		MRSTONE-W-23244
Stone	43	10/21/08	–	–	5	gal	–	3.0	ND	ND		MRSTONE-W-27634
Stone	43	4/23/09	–	–	5	gal	–	1.1	ND	ND		MRSTONE-W-27666
Stone	43	9/2/09	–	–	5	gal	–	0.9 J	ND	ND		MRSTONE-W-29956
Stone	43	4/7/10	–	–	5	gal	–	0.5 J	ND	ND		MRSTONE-W-29996
Stone	43	9/22/10	–	–	5	gal	–	0.6 J	1.8	ND		MRSTONE-W-30024

TABLE 3.2 (Cont.)

Location	Screen Interval (ft BGL)	Sample Date	Depth to Water (ft TOC) <sup>a</sup>	Depth of well (ft TOC) <sup>a</sup>	Volume Purged	Purge Units	Pump Intake Position (ft BGL)	Concentration (µg/L)			Comment	Sample
								Carbon Tetrachloride	Chloroform	Methylene Chloride		
TD12	27-67	4/22/08	–	–	–	–	–	ND	ND	ND	Grimm irrigation well.	MRTD12-W-23264
TD12	27-67	10/20/08	–	–	–	–	–	ND	ND	ND	Grimm irrigation well.	MRTD12-W-27635
TD12	27-67	4/23/09	–	–	–	–	–	ND	ND	ND	Tile drain into creek. Overflow before catchment.	MRTD12-W-27667
TD12	27-67	9/3/09	–	–	–	–	–	ND	ND	ND		MRTD12-W-29957
TD12	27-67	4/6/10	–	–	–	–	–	ND	ND	ND		MRTD12-W-29997
TD12	27-67	9/22/10	–	–	–	–	–	ND	ND	ND		MRTD12-W-30025

<sup>a</sup> Depths were measured from the top of the casing (TOC).

<sup>b</sup> ND, not detected at an instrument detection limit of 0.1 µg/L.

<sup>c</sup> Qualifier J indicates an estimated concentration below the method quantitation limit of 1.0 µg/L.

<sup>d</sup> Qualifier B indicates that the compound was present in the associated method blank.

<sup>e</sup> Qualifier R indicates that the contaminant was present in the associated equipment rinsate. Resampling confirmed that the well was free of contamination.

<sup>f</sup> The well's dedicated pump was used for sampling. The pump was allowed to run before the sample was collected.

<sup>g</sup> Sample collected after recent reactivation of well. Well resampled on 1/8/07 and 1/11/08.

<sup>h</sup> Total depth.





TABLE 3.3 (Cont.)

Location	Screen Interval (ft BGL)	Sample Date	Depth to Water (ft TOC)	Depth of well (ft TOC)	Volume Purged	Purge Units	Pump Intake Position (ft BGL)	Temperature (°C)	pH	Conductivity (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Iron II (mg/L)	Carbon Dioxide (mg/L)	Sample
MW2S	13-53	4/23/09	33.2	53.5	6.5	L	43.35	15.2	6.97	755	9.19	26	0	–	MRMW2S-W-27654
MW2S	13-53	9/3/09	29.4	53.5	5.4	L	41.2	15.1	7.15	690	8.80	32	0.01	–	MRMW2S-W-29944
MW2S	13-53	4/6/10	18.57	52.42	6.5	L	36	17.1	6.95	681	6.85	–	37.3	0.12	MRMW2S-W-29984
MW2S	13-53	9/22/10	31.25	53	7	L	33	16.1	7.03	723	7.16	–	142	0	MRMW2S-W-30012
MW3S	18-48	10/23/03	36.47	47.79	73	gal	–	16.8	7.23	655	–	6	–	–	MRMW03-W-16423
MW3S	18-48	6/2/04	30.67	47.5	34	gal	–	14.2	7.23	664	–	–	–	–	MRMW3S-W-16462
MW3S	18-48	9/13/05	25.6	47.6	50	gal	–	14.6	7.13	663	8.82	223	0	100	MRMW3S-W-19261
MW3S	18-48	3/23/06	35.62	47.74	28	gal	–	8.9	7.16	662	6.74	269	0.08	25	MRMW3S-W-19994
MW3S	18-48	9/20/06	29.44	47.75	22	gal	–	12.9	7.15	669	7.64	105	0	–	MRMW3S-W-22496
MW3S	18-48	3/22/07	26.19	47.75	45	gal	–	15.0	6.44	578	5.90	261	0.17	30	MRMW3S-W-16563
MW3S	18-48	10/3/07	22.7	47.9	50	gal	–	15.3	6.97	594	0.38	282	0	20	MRMW3S-W-16585
MW3S	18-48	4/14/08	16.95	47.8	3.31	L	–	13.7	7.17	693	3.52	165	0	–	MRMW3S-W-23233
MW3S	18-48	4/22/08	15.8	47.8	6.5	L	–	16.0	6.99	685	6.71	155	–	–	MRMW3S-W-23260
MW3S	18-48	5/1/08	–	–	2.62	L	26	13.2	7.17	675	3.83	161	–	–	MRMW3S-26-W-23269
MW3S	18-48	5/1/08	–	–	2.75	L	38	12.7	7.12	671	4.21	193	–	–	MRMW3S-38-W-23270
MW3S	18-48	5/1/08	–	–	3.17	L	45	12.6	7.03	675	4.57	205	–	–	MRMW3S-45-W-23271
MW3S	18-48	10/21/08	27	47.8	4.2	L	33	12.6	7.17	673	6.42	115	0	–	MRMW3S-W-27623
MW3S	18-48	10/21/08	–	–	TWV	–	–	14.3	7.11	522	–	–	0	–	MRMW3S-W-27650
MW3S	18-48	4/23/09	26.7	47.8	5	L	37.3	17.0	7.06	662	9.40	-63	0.01	–	MRMW3S-W-27655
MW3S	18-48	9/3/09	22.4	47.8	5.5	L	35.2	16.3	7.28	640	7.69	12	0.01	–	MRMW3S-W-29945
MW3S	18-48	9/4/09	22.55	47.8	190	L	46	14.2	6.57	659	9.09	95	–	–	MRMW3S-W-29972
MW3S	18-48	4/6/10	12.14	47.8	6	L	33	16.0	6.99	611	8.20	8	0	–	MRMW3S-W-29985
MW3S	18-48	9/23/10	23.73	47.8	7	L	33	15.8	7.22	674	11.00	150	0.05	–	MRMW3S-W-30013
MW4S	17-47	10/21/03	46.4	47.8	PDS	–	–	–	7.17	758	–	–	–	–	MRMW04-W-16418
MW4S	17-47	6/4/04	43.21	47.8	10	gal	–	15.4	6.93	769	–	–	–	–	MRMW4S-W-16470
MW4S	17-47	9/14/05	36.21	47.81	8	gal	–	15.4	7.30	751	8.00	174	0	50	MRMW4S-W-19262
MW4S	17-47	3/21/06	44.55	47.72	6	gal	–	6.7	7.25	729	10.90	154	0	25	MRMW4S-W-19993
MW4S	17-47	9/18/06	41.56	47.75	5.25	gal	–	13.1	7.25	728	8.05	41	0	50	MRMW4S-W-22487
MW4S	17-47	3/22/07	38.74	47.75	6	gal	–	14.2	6.53	765	5.91	78	0.1	25	MRMW4S-W-16562
MW4S	17-47	10/3/07	31.11	47.73	30	gal	–	16.4	6.95	715	7.40	281	0.1	30	MRMW4S-W-16586
MW4S	17-47	1/11/08	–	–	–	–	–	11.3	7.56	757	–	–	–	–	MOMW4S-W-011108
MW4S	17-47	4/14/08	26.32	47.85	2.48	L	–	13.1	7.28	783	3.80	213	0	–	MRMW4S-W-23234
MW4S	17-47	10/20/08	36.7	47.8	8	gal	–	14.5	7.16	756	8.71	104	0	–	MRMW4S-W-27624
MW4S	17-47	4/23/09	41.5	47.8	5	L	44.65	15.8	7.16	717	9.45	22	0.05	–	MRMW4S-W-27656
MW4S	17-47	9/4/09	31.6	47.8	6	L	39.3	15.0	7.13	731	8.23	80	0.04	–	MRMW4S-W-29946
MW4S	17-47	4/6/10	21.8	47.85	5.5	L	34.83	16.5	7.07	629	8.07	–	-1.2	0	MRMW4S-W-29986
MW4S	17-47	9/22/10	33.15	47.8	6	L	32	16.3	7.07	732	7.28	–	90.4	0	MRMW4S-W-30014
MW5S	15-55	10/22/03	31.4	55.72	48	gal	–	15.3	7.10	816	–	6	–	–	MRMW05-W-16420
MW5S	15-55	6/2/04	26.33	55.65	> 57	gal	–	14.3	7.21	817	–	–	–	–	MRMW5S-W-16460
MW5S	15-55	9/13/05	22.66	54.2	75	gal	–	16.0	7.04	763	13.90	228	0	60	MRMW5S-W-19260
MW5S	15-55	3/22/06	28.64	54.51	50	gal	–	13.9	7.25	781	4.52	234	0.06	35	MRMW5S-W-19996
MW5S	15-55	9/20/06	25.43	54.63	52	gal	–	13.9	7.19	787	5.82	73	0	35	MRMW5S-W-22493
MW5S	15-55	3/22/07	25.14	54.56	58	gal	–	15.5	6.50	436	3.98	159	0.08	30	MRMW5S-W-16569
MW5S	15-55	10/3/07	19.55	54.65	68	gal	–	16.5	7.18	850	1.87	268	0.04	25	MRMW5S-W-16588
MW5S	15-55	4/14/08	11.2	54.6	6	L	–	14.1	6.90	1008	3.73	143	0.02	–	MRMW5S-W-23235

TABLE 3.3 (Cont.)

Location	Screen Interval (ft BGL)	Sample Date	Depth to Water (ft TOC)	Depth of well (ft TOC)	Volume Purged	Purge Units	Pump Intake Position (ft BGL)	Temperature (°C)	pH	Conductivity (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Iron II (mg/L)	Carbon Dioxide (mg/L)	Sample
MW5S	15-55	4/23/08	11.3	54.6	6.5	L	—	14.9	6.88	1009	3.27	184	—	—	MRMW5S-W-23266
MW5S	15-55	5/1/08	—	—	3.7	L	20	15.2	6.92	1014	2.99	126	—	—	MRMW5S-20-W-23272
MW5S	15-55	5/1/08	—	—	3.4	L	28	15.1	6.90	997	2.38	124	—	—	MRMW5S-28-W-23273
MW5S	15-55	5/1/08	—	—	4	L	52	15.1	6.89	989	2.06	128	—	—	MRMW5S-52-W-23274
MW5S	15-55	10/21/08	22.5	54.6	7	L	35	13.2	7.04	818	5.54	180	0	—	MRMW5S-W-27625
MW5S	15-55	4/24/09	22.1	54.6	5.5	L	38.35	15.2	6.98	817	6.68	77	0	—	MRMW5S-W-27657
MW5S	15-55	9/3/09	17.6	54.6	5.5	L	36.3	16.5	7.10	873	3.07	23	0.02	—	MRMW5S-W-29947
MW5S	15-55	4/7/10	8.32	54.5	5.5	L	35	12.6	6.76	844	4.46	—	149	0	MRMW5S-W-29987
MW5S	15-55	9/22/10	19.25	55	6.5	L	35	16.4	6.81	891	1.69	—	112	0	MRMW5S-W-30015
MW6S	10-25	6/3/04	3.34	26.9	45	gal	—	15.1	6.89	2410	—	—	—	—	MRMW6S-W-16465
MW6S	10-25	9/14/05	4.7	26.9	43	gal	—	14.1	7.06	2350	0.01	54	0	60	MRMW6S-W-19263
MW6S	10-25	3/20/06	5.35	26.91	43	gal	—	9.8	6.91	2360	1.37	89	0.38	60	MRMW6S-W-19990
MW6S	10-25	9/18/06	5.48	26.92	27	gal	—	12.5	6.96	2410	0.08	-29	0.35	85	MRMW6S-W-22486
MW6S	10-25	3/21/07	5.42	26.92	30	gal	—	18.0	6.34	2450	0.12	75	0.78	40	MRMW6S-W-16486
MW6S	10-25	10/2/07	5	26.9	31	gal	—	17.1	7.33	2280	0.20	61	0.19	35	MRMW6S-W-16583
MW6S	10-25	4/15/08	5.15	26.9	2.5	L	—	8.7	6.99	2485	0.31	-76	0.41	—	MRMW6S-W-23236
MW6S	10-25	10/20/08	5.7	26.9	5	L	17.5	14.3	6.84	2380	0.36	18	0.28	—	MRMW6S-W-27626
MW6S	10-25	4/24/09	6.2	26.9	12	L	17.5	15.2	6.93	2270	0.19	-39	0.63	—	MRMW6S-W-27658
MW6S	10-25	9/4/09	5.85	26.9	5.4	L	17.5	13.8	6.88	2302	0.64	79	0.32	—	MRMW6S-W-29948
MW6S	10-25	4/6/10	6.15	26.9	8	L	17.5	15.2	6.87	2141	0.05	—	-19.0	0.21	MRMW6S-W-29988
MW6S	10-25	9/22/10	5.53	26.9	8.75	L	17.5	15.6	6.92	2354	0.42	—	46.9	0.24	MRMW6S-W-30016
MW7S	20-45	6/3/04	26.68	46.98	40	gal	—	13.8	7.19	763	—	—	—	—	MRMW7S-W-16466
MW7S	20-45	9/12/05	17.57	46.94	55	gal	—	15.0	7.26	760	8.35	240	0	50	MRMW7S-W-19258
MW7S	20-45	3/22/06	22.45	46.98	48	gal	—	15.2	7.32	740	5.52	268	0.03	25	MRMW7S-W-20000
MW7S	20-45	9/19/06	20.94	47.02	56	gal	—	13.2	7.15	764	7.37	114	0	25	MRMW7S-W-22490
MW7S	20-45	3/20/07	18.01	47.02	50	gal	—	14.6	6.43	750	5.31	95	0	30	MRMW7S-W-16481
MW7S	20-45	10/1/07	12.4	47	70	gal	—	15.6	6.99	725	7.76	269	0.01	35	MRMW7S-W-16581
MW7S	20-45	4/14/08	7.72	47	1.82	L	—	13.4	7.21	811	2.50	276	0	—	MRMW7S-W-23237
MW7S	20-45	4/23/08	7.8	47	11	L	—	14.0	7.00	822	7.41	191	—	—	MRMW7S-W-23265
MW7S	20-45	10/20/08	17.2	47	6.3	L	32.5	14.9	7.02	802	6.38	87	0	—	MRMW7S-W-27627
MW7S	20-45	4/23/09	16.7	47	7	L	32.5	16.1	7.01	727	9.48	-53	0.01	—	MRMW7S-W-27659
MW7S	20-45	9/3/09	13.8	47	9	L	32.5	17.4	7.58	814	9.86	102	0.02	—	MRMW7S-W-29949
MW7S	20-45	4/6/10	6.38	47	5.4	L	32.5	14.7	7.04	718	7.92	—	22.8	0	MRMW7S-W-29989
MW7S	20-45	9/23/10	14.15	45	6	L	32.5	16.0	6.91	772	8.39	—	201	0	MRMW7S-W-30017
MW8S	10-25	6/3/04	3.7	26.75	45	gal	—	12.8	7.12	941	—	—	—	—	MRMW8S-W-16464
MW8S	10-25	9/14/05	4.02	26.82	57	gal	—	14.1	7.30	853	0.02	65	0	40	MRMW8S-W-19265
MW8S	10-25	3/20/06	4.57	26.41	43	gal	—	12.5	7.04	954	0.90	153	0.05	30	MRMW8S-W-19991
MW8S	10-25	9/19/06	4.76	26.83	45	gal	—	11.8	7.09	903	0.58	284	0.13	50	MRMW8S-W-22492
MW8S	10-25	3/20/07	2.63	26.82	49	gal	—	11.0	6.52	1026	0.77	76	0	30	MRMW8S-W-16483
MW8S	10-25	10/2/07	2.2	26.8	48	gal	—	15.2	6.76	607	2.66	209	0.02	25	MRMW8S-W-16584
MW8S	10-25	4/15/08	0.7	26.8	5.5	L	—	10.2	7.27	1067	1.58	170	0	—	MRMW8S-W-23238
MW8S	10-25	10/20/08	3.6	26.8	8	L	17.5	14.0	6.91	1002	0.93	69	0	—	MRMW8S-W-27628
MW8S	10-25	4/23/09	2.3	26.8	6	L	17.5	11.4	6.88	825	1.76	-35	0.02	—	MRMW8S-W-27660
MW8S	10-25	9/3/09	2.9	26.8	8.5	L	17.5	14.1	7.52	890	2.09	115	0	—	MRMW8S-W-29950
MW8S	10-25	4/6/10	1.1	26.8	8	L	17.5	13.7	7.00	843	2.60	—	212	0	MRMW8S-W-29990

TABLE 3.3 (Cont.)

Location	Screen Interval (ft BGL)	Sample Date	Depth to Water (ft TOC)	Depth of well (ft TOC)	Volume Purged	Purge Units	Pump Intake Position (ft BGL)	Temperature (°C)	pH	Conductivity (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Iron II (mg/L)	Carbon Dioxide (mg/L)	Sample
MW8S	10-25	9/22/10	2.53	26.8	9	L	17.5	16.2	7.12	865	1.51	-	100	0.04	MRMW8S-W-30018
MW9S	38.83-53.83	3/22/06	20.2	58.62	20	gal	-	14.6	7.17	715	0.41	25	0	35	MRMW9S-W-20004
MW9S	38.83-53.83	9/19/06	18.87	59	22	gal	-	13.0	7.08	707	0.10	113	0	55	MRMW9S-W-22494
MW9S	38.83-53.83	3/20/07	16.69	59	22	gal	-	14.2	6.39	714	0.21	40	0	20	MRMW9S-W-16480
MW9S	38.83-53.83	10/1/07	14	58.6	23	gal	-	15.5	7.05	664	5.50	191	0	30	MRMW9S-W-16582
MW9S	38.83-53.83	4/14/08	16.58	58.63	2.29	L	-	12.6	7.33	709	1.93	266	0.07	-	MRMW9S-W-23239
MW9S	38.83-53.83	10/20/08	21.5	58.5	11	L	46.33	15.1	7.15	690	6.18	106	0	-	MRMW9S-W-27629
MW9S	38.83-53.83	4/23/09	21.9	58.5	5.5	L	46.33	16.0	7.17	669	5.99	-65	0.07	-	MRMW9S-W-27661
MW9S	38.83-53.83	9/4/09	19.95	58.5	5	L	46.33	17.3	7.18	684	5.33	52	0.03	-	MRMW9S-W-29951
MW9S	38.83-53.83	4/6/10	16.5	58.5	6	L	46.33	15.3	7.19	650	5.50	-	-9.7	0.02	MRMW9S-W-29991
MW9S	38.83-53.83	9/22/10	21.15	53.83	7	L	46.33	17.1	7.12	704	6.07	-	151	0	MRMW9S-W-30019
MW10S	30-45	3/21/06	12.3	49.6	19	gal	-	6.3	7.11	701	2.10	88	0.01	40	MRMW10S-W-19999
MW10S	30-45	9/18/06	11.08	49.61	20	gal	-	14.3	7.17	701	0.04	24	0.08	60	MRMW10S-W-22489
MW10S	30-45	3/21/07	10.77	49.61	20	gal	-	14.5	6.51	720	0.88	11	0	30	MRMW10S-W-16485
MW10S	30-45	10/1/07	6.95	49.65	20	gal	-	16.3	6.97	664	0.35	248	0.04	35	MRMW10S-W-16593
MW10S	30-45	4/14/08	9.82	49.7	1.9	L	-	16.0	7.25	723	1.25	181	0	-	MRMW10S-W-23240
MW10S	30-45	10/20/08	13.7	49.7	5.4	L	37.5	14.3	7.03	710	1.02	56	0	-	MRMW10S-W-27630
MW10S	30-45	4/23/09	13.6	45	7.5	L	37.5	15.1	7.05	668	1.78	-57	0.07	-	MRMW10S-W-27662
MW10S	30-45	9/3/09	12	49.7	7.5	L	37.5	14.3	7.59	731	2.03	86	0.07	-	MRMW10S-W-29952
MW10S	30-45	4/6/10	7.5	49.7	9	L	37.5	16.1	7.06	649	2.91	-	221	0	MRMW10S-W-29992
MW10S	30-45	9/22/10	11.69	49.7	11	L	37.5	16.7	7.29	723	5.05	-	131	0	MRMW10S-W-30020
MW11S	53-68	3/22/06	35.2	72.5	20	gal	-	14.8	7.33	762	9.40	237	0.06	30	MRMW11S-W-20001
MW11S	53-68	9/19/06	36	73.14	20	gal	-	13.0	7.24	764	1.42	158	0.02	30	MRMW11S-W-22491
MW11S	53-68	3/20/07	34.65	73.14	20	gal	-	14.6	6.33	782	3.90	76	0	30	MRMW11S-W-16479
MW11S	53-68	10/1/07	31.55	73	20	gal	-	16.4	6.49	624	6.57	241	0.04	35	MRMW11S-W-16594
MW11S	53-68	4/15/08	29.9	72.7	5.5	L	-	13.9	7.30	785	6.14	152	0	-	MRMW11S-W-23241
MW11S	53-68	4/22/08	30.2	72.7	7.2	L	-	15.1	7.25	790	6.22	163	-	-	MRMW11S-W-23261
MW11S	53-68	10/20/08	37.1	72.7	9	L	60.5	14.3	7.16	756	8.95	104	0	-	MRMW11S-W-27631
MW11S	53-68	10/21/08	-	-	TWV	-	-	14.8	7.19	766	-	-	0	-	MRMW11S-W-27651
MW11S	53-68	4/23/09	38.1	72.7	5	L	60.5	16.5	7.19	722	9.03	-62	0.09	-	MRMW11S-W-27663
MW11S	53-68	9/3/09	34.7	72.7	7.5	L	60.5	13.9	7.63	777	9.35	102	0.05	-	MRMW11S-W-29953
MW11S	53-68	9/4/09	34.95	72.7	72	L	67	16.2	6.69	721	8.78	100	-	-	MRMW11S-W-29973
MW11S	53-68	4/6/10	29.45	72.7	6.5	L	60.5	15.0	7.14	700	7.20	-	-20.1	0	MRMW11S-W-29993
MW11S	53-68	9/23/10	34.75	72.7	7	L	60.5	15.7	7.40	756	12.62	-	179	0.33	MRMW11S-W-30021
Isch	-	2/19/04	-	-	Pump <sup>d</sup>	-	-	-	-	-	-	-	-	-	MRJR-W-16502
Isch	-	9/14/05	-	-	Pump	-	-	20.4	6.73	2300	-	-	-	-	MRPRISCH-W-16513
Isch	-	3/23/06	-	-	20	gal	-	13.0	7.23	9400	-	-	-	-	MRISCH-W-19989
Isch	-	9/19/06	-	-	Pump	-	-	-	-	-	-	-	-	-	MRISCH-W-16531
Isch	-	3/22/07	-	-	Pump	-	-	-	-	-	-	-	-	-	MRISCH-W-16564
Isch	-	10/3/07	-	-	Pump	-	-	-	-	-	-	-	-	-	MRISCH-W-16590
Isch	-	4/15/08	-	-	Pump	-	-	12.6	7.33	3160	-	-	0.28	-	MRISCH-W-23242
Isch	-	10/21/08	-	-	Pump	-	-	-	-	-	-	-	-	-	MRISCH-W-27632
Isch	-	4/22/09	-	-	Pump	-	-	15.3	6.70	2389	-	-	0.04	-	MRISCH-W-27664
Isch	-	9/2/09	-	-	Pump	-	-	13.9	7.18	2600	-	-	-	-	MRISCH-W-29954

TABLE 3.3 (Cont.)

Location	Screen Interval (ft BGL)	Sample Date	Depth to Water (ft TOC)	Depth of well (ft TOC)	Volume Purged	Purge Units	Pump Intake Position (ft BGL)	Temperature (°C)	pH	Conductivity (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Iron II (mg/L)	Carbon Dioxide (mg/L)	Sample
Isch	-	4/7/10	-	-	Pump	-	-	11.8	6.86	2326	-	-	-	0.05	MRISCH-W-29994
Rillinger	-	6/4/04	-	-	Pump	-	-	15.9	6.99	2450	-	-	-	-	MRPRIVRIL-W-16471
Rillinger	-	9/14/05	-	-	Pump	-	-	-	-	-	-	-	-	-	MRPRILL-W-16512
Rillinger	-	3/19/06	-	-	Pump	-	-	11.9	7.05	2550	-	-	-	-	MRRILINGER-W-19988
Rillinger	-	9/19/06	-	-	Pump	-	-	-	-	-	-	-	-	-	MRRILI-W-16530
Rillinger	-	3/29/07	-	-	Pump	-	-	-	-	-	-	-	-	-	MRRILINGER-W-16561
Rillinger	-	10/3/07	-	-	Pump	-	-	-	-	-	-	-	-	-	MRRILINGER-W-16591
Rillinger	-	1/11/08	-	-	Pump	-	-	12.2	7.46	884	-	-	-	-	MORIL-W-11108
Rillinger	-	4/15/08	-	-	Pump	-	-	12.0	7.56	868	-	-	0	-	MRRILINGER-W-23243
Rillinger	-	10/21/08	-	-	Pump	-	-	-	-	-	-	-	-	-	MRRILLINGER-W-27633
Rillinger	-	4/22/09	-	-	Pump	-	-	14.5	7.14	2279	-	-	0.01	-	MRRILLINGER-W-27665
Rillinger	-	9/2/09	-	-	Pump	-	-	14.8	7.60	809	-	-	-	-	MRRILLINGER-W-29955
Rillinger	-	4/7/10	-	-	Pump	-	-	13.1	7.08	2287	-	-	-	-	MRRILLINGER-W-29995
Rillinger	-	9/22/10	-	-	Pump	-	-	14.9	7.04	2337	-	-	-	0.07	MRRILLINGER-W-30023
Stone	43 <sup>e</sup>	6/4/04	23.35	-	PDS	-	-	17.1	7.35	682	-	-	-	-	MRPRIVSTON-W-16475
Stone	43	9/14/05	17.18	40	-	-	-	17.3	6.81	638	-	-	-	-	MRPRSTON-W-16511
Stone	43	3/19/06	17.42	40	100	gal	-	12.9	6.42	650	-	213	0	-	MRSTONE-W-19987
Stone	43	9/19/06	18.55	38.8	41	gal	-	16.7	7.12	639	-	-	-	-	MRSTONE-W-16529
Stone	43	3/22/07	20.62	38.8	56	gal	-	16.7	6.58	679	4.71	19	0.28	35	MRSTONE-W-16560
Stone	43	10/3/07	14.6	38.6	72	gal	-	16.1	6.97	564	7.07	225	0.07	25	MRSTONE-W-16589
Stone	43	4/15/08	-	38.86	-	-	-	11.3	7.45	557	-	-	0	-	MRSTONE-W-23244
Stone	43	10/21/08	-	-	5	gal	-	-	-	-	-	-	-	-	MRSTONE-W-27634
Stone	43	4/23/09	-	-	5	gal	-	13.9	7.12	588	-	-	-	-	MRSTONE-W-27666
Stone	43	9/2/09	-	-	5	gal	-	13.8	7.40	623	-	-	-	-	MRSTONE-W-29956
Stone	43	4/7/10	-	-	5	gal	-	10.9	6.83	468	-	-	-	-	MRSTONE-W-29996
Stone	43	9/22/10	-	-	5	gal	-	15.3	7.21	552	-	-	-	-	MRSTONE-W-30024

- <sup>a</sup> Not measured.
- <sup>b</sup> TWV, three well volumes.
- <sup>c</sup> PDS, purged dry and then sampled.
- <sup>d</sup> The well's dedicated pump was used for sampling. The pump was allowed to run before the sample was collected.
- <sup>e</sup> Total depth.

TABLE 3.4 Results of analyses at the AGEM Laboratory for volatile organic compounds in surface water and sediment samples collected at Morrill, March 2007 to September 2010.<sup>a</sup>

Location	Sample	Sample Date	Medium	Concentration ( $\mu\text{g/L}$ in water; $\mu\text{g/kg}$ in sediment)			Quantitation Limit
				Carbon Tetrachloride	Chloroform	Methylene Chloride	
SM1	MRS1-W-16572	3/22/07	Water	ND <sup>b</sup>	ND	ND	1
SM1	MRS1-S-16573	3/22/07	Sediment	ND	ND	ND	10
SM1	MRS1-W-16583	10/8/07	Water	ND	ND	ND	1
SM1	MRS1-S-16584	10/8/07	Sediment	ND	ND	ND	10
SM1	MRS1-W-23254	4/14/08	Water	ND	ND	ND	1
SM1	MRS1-S-23254	4/14/08	Sediment	ND	ND	ND	10
SM1	MRS1-W-27644	10/20/08	Water	ND	ND	ND	1
SM1	MRS1-S-27644	10/20/08	Sediment	ND	ND	ND	10
SM1	MRS1-W-27676	4/22/09	Water	ND	ND	ND	1
SM1	MRS1-S-27676	4/22/09	Sediment	ND	ND	ND	10
SM1	MRS1-W-29966	9/2/09	Water	ND	ND	ND	1
SM1	MRS1-S-29966	9/2/09	Sediment	ND	ND	ND	10
SM1	MRS1-W-29974	4/6/10	Water	ND	ND	ND	1
SM1	MRS1-S-29974	4/6/10	Sediment	ND	ND	ND	10
SM1	MRS1-W-30005	9/22/10	Water	ND	ND	ND	1
SM1	MRS1-S-30005	9/22/10	Sediment	ND	ND	ND	10
SM2	MRS2-W-16574	3/22/07	Water	ND	ND	ND	1
SM2	MRS2-S-16575	3/22/07	Sediment	ND	ND	ND	10
SM2	MRS2-W-16585	10/8/07	Water	ND	ND	ND	1
SM2	MRS2-S-16586	10/8/07	Sediment	ND	ND	ND	10
SM2	MRS2-W-23255	4/14/08	Water	ND	ND	ND	1
SM2	MRS2-S-23255	4/14/08	Sediment	ND	ND	ND	10
SM2	MRS2-W-27645	10/20/08	Water	ND	ND	ND	1
SM2	MRS2-S-27645	10/20/08	Sediment	ND	ND	ND	10
SM2	MRS2-W-27677	4/22/09	Water	ND	ND	ND	1
SM2	MRS2-S-27677	4/22/09	Sediment	ND	ND	ND	10
SM2	MRS2-W-29967	9/2/09	Water	ND	ND	ND	1
SM2	MRS2-S-29967	9/2/09	Sediment	ND	ND	ND	10
SM2	MRS2-W-29975	4/6/10	Water	ND	ND	ND	1
SM2	MRS2-S-29975	4/6/10	Sediment	ND	ND	ND	10
SM2	MRS2-W-30006	9/22/10	Water	ND	ND	ND	1
SM2	MRS2-S-30006	9/22/10	Sediment	ND	ND	ND	10
SM3	MRS3-W-16576	3/22/07	Water	ND	ND	ND	1
SM3	MRS3-S-16577	3/22/07	Sediment	ND	ND	ND	10
SM3	MRS3-W-16587	10/8/07	Water	ND	ND	ND	1
SM3	MRS3-S-16588	10/8/07	Sediment	ND	ND	ND	10
SM3	MRS3-W-23256	4/14/08	Water	ND	ND	ND	1
SM3	MRS3-S-23256	4/14/08	Sediment	ND	ND	ND	10
SM3	MRS3-W-27646	10/20/08	Water	ND	ND	ND	1
SM3	MRS3-S-27646	10/20/08	Sediment	ND	ND	ND	10
SM3	MRS3-W-27678	4/22/09	Water	ND	ND	ND	1
SM3	MRS3-S-27678	4/22/09	Sediment	ND	ND	ND	10
SM3	MRS3-W-29968	9/2/09	Water	ND	ND	ND	1
SM3	MRS3-S-29968	9/2/09	Sediment	ND	ND	ND	10
SM3	MRS3-W-29976	4/6/10	Water	ND	ND	ND	1
SM3	MRS3-S-29976	4/6/10	Sediment	ND	ND	ND	10
SM3	MRS3-W-30007	9/22/10	Water	ND	ND	ND	1
SM3	MRS3-S-30007	9/22/10	Sediment	ND	ND	ND	10

TABLE 3.4 (Cont.)

Location	Sample	Sample Date	Medium	Concentration ( $\mu\text{g/L}$ in water; $\mu\text{g/kg}$ in sediment)			Quantitation Limit
				Carbon Tetrachloride	Chloroform	Methylene Chloride	
SM4	MRSMB-W-16578	3/22/07	Water	ND	ND	ND	1
SM4	MRSMB-S-16579	3/22/07	Sediment	ND	ND	ND	10
SM4	MRSMB-W-16589	10/8/07	Water	ND	ND	ND	1
SM4	MRSMB-S-16590	10/8/07	Sediment	ND	ND	ND	10
SM4	MRSMB-W-23257	4/14/08	Water	ND	ND	ND	1
SM4	MRSMB-S-23257	4/14/08	Sediment	ND	ND	ND	10
SM4	MRSMB-W-27647	10/20/08	Water	ND	ND	ND	1
SM4	MRSMB-S-27647	10/20/08	Sediment	ND	ND	ND	10
SM4	MRSMB-W-27679	4/22/09	Water	ND	ND	ND	1
SM4	MRSMB-S-27679	4/22/09	Sediment	ND	ND	ND	10
SM4	MRSMB-W-29969	9/2/09	Water	ND	ND	ND	1
SM4	MRSMB-S-29969	9/2/09	Sediment	ND	ND	ND	10
SM4	MRSMB-W-29977	4/6/10	Water	ND	ND	ND	1
SM4	MRSMB-S-29977	4/6/10	Sediment	ND	ND	ND	10
SM4	MRSMB-W-30008	9/22/10	Water	ND	ND	ND	1
SM4	MRSMB-S-30008	9/22/10	Sediment	ND	ND	ND	10
SMB	MRSMB-W-16570	3/22/07	Water	ND	ND	ND	1
SMB	MRSMB-S-16571	3/22/07	Sediment	ND	ND	ND	10
SMB	MRSMB-W-16581	10/8/07	Water	ND	ND	ND	1
SMB	MRSMB-S-16582	10/8/07	Sediment	ND	ND	ND	10
SMB	MRSMB-W-23258	4/14/08	Water	ND	ND	ND	1
SMB	MRSMB-S-23258	4/14/08	Sediment	ND	ND	ND	10
SMB	MRSMB-W-27648	10/20/08	Water	ND	ND	ND	1
SMB	MRSMB-S-27648	10/20/08	Sediment	ND	ND	ND	10
SMB	MRSMB-W-27680	4/22/09	Water	ND	ND	ND	1
SMB	MRSMB-S-27680	4/22/09	Sediment	ND	ND	ND	10
SMB	MRSMB-W-29970	9/2/09	Water	ND	ND	ND	1
SMB	MRSMB-S-29970	9/2/09	Sediment	ND	ND	ND	10
SMB	MRSMB-W-29978	4/6/10	Water	ND	ND	ND	1
SMB	MRSMB-S-29978	4/6/10	Sediment	ND	ND	ND	10
SMB	MRSMB-W-30009	9/22/10	Water	ND	ND	ND	1
SMB	MRSMB-S-30009	9/22/10	Sediment	ND	ND	ND	10

<sup>a</sup> Analyses conducted at the AGEM Laboratory by EPA Method 524.2 for surface water samples or by modified EPA Method 5030B/8260B for sediment samples.

<sup>b</sup> ND, not detected at the instrument detection limit of 0.1  $\mu\text{g/L}$  for surface water samples or 1.0  $\mu\text{g/kg}$  for sediment samples.

TABLE 3.5 Results of analyses at the AGEM Laboratory for carbon tetrachloride and chloroform in vegetation samples collected at Morrill, October 2006 to July 2010.<sup>a</sup>

Location	Sample	Sample Date	Type	Concentration (µg/kg)	
				Carbon Tetrachloride	Chloroform
MR001	MR001-B-18959	10/14/06	Branch	ND <sup>b</sup>	1.6
MR001	MR001-L-18958	10/14/06	Leaf	ND	3.3
MR001	MR001-B-23173	4/2/07	Branch	ND	ND
MR001	MR001-B-23213	7/26/07	Branch	ND	ND
MR001	MR001-L-23212	7/26/07	Leaf	ND	ND
MR001	MR001-B-16623	7/24/08	Branch	ND	ND
MR001	MR001-B-29924	8/27/09	Branch	ND	ND
MR001	MR001-B-31929	7/27/10	Branch	ND	ND
MR001A	MR001A-B-16622	7/24/08	Branch	ND	ND
MR002	MR002-B-18961	10/14/06	Branch	ND	ND
MR002	MR002-L-18960	10/14/06	Leaf	ND	ND
MR002	MR002-B-23174	4/2/07	Branch	ND	1.5
MR002	MR002-B-23211	7/26/07	Branch	ND	ND
MR002	MR002-L-23210	7/26/07	Leaf	ND	1.3
MR002	MR002-B-16621	7/24/08	Branch	ND	ND
MR002	MR002-B-29923	8/27/09	Branch	ND	ND
MR002	MR002-B-31928	7/27/10	Branch	ND	ND
MR003	MR003-B-18963	10/14/06	Branch	ND	1.5
MR003	MR003-L-18962	10/14/06	Leaf	ND	1.8
MR003	MR003-B-23175	4/2/07	Branch	ND	ND
MR003	MR003-B-23209	7/26/07	Branch	ND	ND
MR003	MR003-L-23208	7/26/07	Leaf	ND	0.8
MR003	MR003-B-16620	7/24/08	Branch	ND	ND
MR003	MR003-B-29922	8/27/09	Branch	ND	ND
MR003	MR003-B-31927	7/27/10	Branch	ND	ND
MR004	MR004-B-18965	10/14/06	Branch	ND	2.1
MR004	MR004-L-18964	10/14/06	Leaf	ND	ND
MR004	MR004-B-23176	4/2/07	Branch	ND	ND
MR004	MR004-B-23205	7/26/07	Branch	ND	ND
MR004	MR004-L-23204	7/26/07	Leaf	ND	ND
MR004	MR004-B-16619	7/24/08	Branch	ND	ND
MR004	MR004-B-29921	8/27/09	Branch	ND	ND
MR004	MR004-B-31926	7/27/10	Branch	ND	ND
MR005	MR005-B-18967	10/14/06	Branch	ND	ND
MR005	MR005-L-18966	10/14/06	Leaf	ND	1.2
MR005	MR005-B-23177	4/2/07	Branch	ND	ND
MR005	MR005-B-23207	7/26/07	Branch	ND	ND
MR005	MR005-L-23206	7/26/07	Leaf	ND	1.4
MR005A	MR005-B-16618	7/24/08	Branch	ND	ND
MR005A	MR005A-B-29920	8/27/09	Branch	ND	ND
MR005A	MR005A-B-31925	7/27/10	Branch	ND	ND
MR006	MR006-B-18969	10/14/06	Branch	ND	3.8
MR006	MR006-L-18968	10/14/06	Leaf	ND	ND
MR006	MR006-B-23161	4/2/07	Branch	ND	ND



TABLE 3.5 (Cont.)

Location	Sample	Sample Date	Type	Concentration ( $\mu\text{g}/\text{kg}$ )	
				Carbon Tetrachloride	Chloroform
MR006	MR006-B-23181	7/26/07	Branch	ND	ND
MR006	MR006-L-23180	7/26/07	Leaf	ND	1.3
MR006	MR006-B-16625	7/24/08	Branch	ND	ND
MR006	MR006-B-29930	8/27/09	Branch	ND	ND
MR006	MR006-B-31931	7/27/10	Branch	ND	ND
MR007	MR007-B-18971	10/14/06	Branch	ND	1.6
MR007	MR007-L-18970	10/14/06	Leaf	ND	2.0
MR007	MR007-B-23162	4/2/07	Branch	ND	ND
MR007	MR007-B-23183	7/26/07	Branch	0.1	ND
MR007	MR007-L-23182	7/26/07	Leaf	ND	1.3
MR007	MR007-B-16626	7/24/08	Branch	ND	ND
MR007	MR007-B-29932	8/27/09	Branch	0.7	0.8
MR007	MR007-B-31932	7/27/10	Branch	ND	ND
MR008	MR008-B-18973	10/14/06	Branch	ND	1.3
MR008	MR008-L-18972	10/14/06	Leaf	ND	2.5
MR008	MR008-B-23163	4/2/07	Branch	ND	0.8
MR008	MR008-B-23185	7/26/07	Branch	ND	ND
MR008	MR008-L-23184	7/26/07	Leaf	ND	ND
MR008	MR008-B-16627	7/24/08	Branch	ND	ND
MR008	MR008-B-29933	8/27/09	Branch	ND	ND
MR008	MR008-B-31933	7/27/10	Branch	ND	ND
MR009	MR009-B-18975	10/14/06	Branch	ND	0.9
MR009	MR009-L-18974	10/14/06	Leaf	ND	2.5
MR009	MR009-B-23165	4/2/07	Branch	ND	ND
MR009	MR009-B-23189	7/26/07	Branch	ND	ND
MR009	MR009-L-23188	7/26/07	Leaf	ND	1.5
MR009	MR009-B-16629	7/24/08	Branch	ND	ND
MR009	MR009-B-29935	8/27/09	Branch	ND	ND
MR009	MR009-B-31935	7/27/10	Branch	ND	ND
MR010	MR010-B-18977	10/14/06	Branch	ND	3.4
MR010	MR010-L-18976	10/14/06	Leaf	ND	ND
MR010	MR010-B-23167	4/2/07	Branch	ND	ND
MR010	MR010-B-23193	7/26/07	Branch	ND	0.8
MR010	MR010-L-23192	7/26/07	Leaf	ND	1.4
MR010	MR010-B-16631	7/24/08	Branch	0.1	1.4
MR010	MR010-B-29936	8/27/09	Branch	ND	ND
MR010	MR010-B-31936	7/27/10	Branch	ND	ND
MR011	MR011-B-18979	10/14/06	Branch	ND	2.2
MR011	MR011-L-18978	10/14/06	Leaf	ND	2.6
MR011	MR011-B-23168	4/2/07	Branch	ND	ND
MR011	MR011-B-23195	7/26/07	Branch	ND	ND
MR011	MR011-L-23194	7/26/07	Leaf	ND	1.7
MR011	MR011-B-16632	7/24/08	Branch	ND	ND
MR011	MR011-B-29937	8/27/09	Branch	ND	ND
MR011	MR011-B-31937	7/27/10	Branch	ND	ND
MR012	MR012-B-18981	10/14/06	Branch	ND	2.1
MR012	MR012-L-18980	10/14/06	Leaf	ND	2.9

TABLE 3.5 (Cont.)

Location	Sample	Sample Date	Type	Concentration (µg/kg)	
				Carbon Tetrachloride	Chloroform
MR012	MR012-B-23169	4/2/07	Branch	ND	ND
MR012	MR012-B-23197	7/26/07	Branch	ND	ND
MR012	MR012-L-23196	7/26/07	Leaf	ND	1.4
MR012	MR012-B-16633	7/24/08	Branch	ND	ND
MR012	MR012-B-29938	8/27/09	Branch	ND	ND
MR012	MR012-B-31938	7/27/10	Branch	ND	ND
MR013	MR013-B-18983	10/14/06	Branch	ND	ND
MR013	MR013-L-18982	10/14/06	Leaf	ND	2.2
MR013	MR013-B-23160	4/2/07	Branch	ND	ND
MR013	MR013-B-23179	7/26/07	Branch	ND	ND
MR013	MR013-L-23178	7/26/07	Leaf	ND	ND
MR013	MR013-B-16624	7/24/08	Branch	ND	ND
MR013	MR013-B-29931	8/27/09	Branch	ND	ND
MR013	MR013-B-31930	7/27/10	Branch	ND	ND
MR014	MR014-B-23164	4/2/07	Branch	ND	ND
MR014	MR014-B-23187	7/26/07	Branch	0.3	ND
MR014	MR014-L-23186	7/26/07	Leaf	ND	ND
MR014	MR014-B-16628	7/24/08	Branch	ND	ND
MR014	MR014-B-29934	8/27/09	Branch	ND	ND
MR014	MR014-B-31934	7/27/10	Branch	ND	ND
MR015	MR015-B-23166	4/2/07	Branch	ND	0.8
MR015	MR015-B-23191	7/26/07	Branch	ND	ND
MR015	MR015-L-23190	7/26/07	Leaf	ND	ND
MR015	MR015-B-16630	7/24/08	Branch	ND	ND
MR016	MR016-B-23170	4/2/07	Branch	ND	1.1
MR016	MR016-B-23199	7/26/07	Branch	ND	ND
MR016	MR016-L-23198	7/26/07	Leaf	ND	ND
MR016	MR016-B-16634	7/24/08	Branch	ND	ND
MR016	MR016-B-29939	8/27/09	Branch	ND	ND
MR016	MR016-B-31939	7/27/10	Branch	ND	ND
MR017	MR017-B-23171	4/2/07	Branch	ND	ND
MR017	MR017-B-23203	7/26/07	Branch	ND	ND
MR017	MR017-L-23202	7/26/07	Leaf	ND	ND
MR017	MR017-B-16635	7/24/08	Branch	ND	ND
MR017	MR017-B-29940	8/27/09	Branch	0.1	ND
MR017	MR017-B-31940	7/27/10	Branch	ND	ND
MR018	MR018-B-23172	4/2/07	Branch	ND	ND
MR018	MR018-B-23201	7/26/07	Branch	ND	ND
MR018	MR018-L-23200	7/26/07	Leaf	ND	3.2
MR018	MR018-B-16636	7/24/08	Branch	ND	ND
MR018	MR018-B-29941	8/27/09	Branch	0.2	ND
MR018	MR018-B-31941	7/27/10	Branch	ND	ND
MR019	MR019-B-16637	7/24/08	Branch	0.1	ND
MR019	MR019-B-29929	8/27/09	Branch	ND	ND
MR019	MR019-B-31924	7/27/10	Branch	ND	ND

TABLE 3.5 (Cont.)

Location	Sample	Sample Date	Type	Concentration ( $\mu\text{g}/\text{kg}$ )	
				Carbon Tetrachloride	Chloroform
MR020	MR020-B-20021	7/24/08	Branch	ND	ND
MR020	MR020-B-29928	8/27/09	Branch	ND	ND
MR020	MR020-B-31923	7/27/10	Branch	ND	ND
MR021	MR021-B-20022	7/24/08	Branch	ND	ND
MR021	MR021-B-29926	8/27/09	Branch	ND	ND
MR021	MR021-B-31920	7/27/10	Branch	ND	ND
MR022	MR022-B-20023	7/24/08	Branch	ND	ND
MR023	MR023-B-20024	7/24/08	Branch	ND	ND
MR023	MR023-B-29925	8/27/09	Branch	0.2	ND
MR023	MR023-B-31921	7/27/10	Branch	ND	ND
MR024	MR024-B-20025	7/24/08	Branch	ND	ND
MR024	MR024-B-29927	8/27/09	Branch	ND	ND
MR024	MR024-B-31922	7/27/10	Branch	ND	ND
MR025	MR025-B-31942	7/28/10	Branch	ND	ND
MR026	MR026-B-31943	7/28/10	Branch	ND	ND
MR027	MR027-B-31944	7/28/10	Branch	ND	ND
MR028	MR028-B-31945	7/28/10	Branch	ND	ND
MR029	MR029-B-31946	7/28/10	Branch	ND	ND
MR030	MR030-B-31947	7/28/10	Branch	ND	ND
MR031	MR031-B-31948	7/28/10	Branch	0.7	ND
MR032	MR032-B-31949	7/28/10	Branch	ND	ND
MR033	MR033-B-31950	7/28/10	Branch	ND	ND
MR034	MR034-B-31951	7/28/10	Branch	ND	ND
MR035	MR035-B-31952	7/28/10	Branch	ND	ND
MR036	MR036-B-31953	7/28/10	Branch	ND	ND
MR037	MR037-B-31954	7/28/10	Branch	ND	ND
MR038	MR038-B-31955	7/28/10	Branch	ND	ND
MR039	MR039-B-31956	7/28/10	Branch	ND	ND
MR040	MR040-B-31957	7/28/10	Branch	ND	ND
MR041	MR041-B-31958	7/28/10	Branch	2.2	ND
MR042	MR042-B-31959	7/28/10	Branch	ND	ND

TABLE 3.5 (Cont.)

Location	Sample	Sample Date	Type	Concentration ( $\mu\text{g}/\text{kg}$ )	
				Carbon Tetrachloride	Chloroform
MR043	MR043-B-31960	7/28/10	Branch	ND	ND
MR044	MR044-B-31961	7/28/10	Branch	0.5	ND

<sup>a</sup> Analyses conducted at the AGEM Laboratory by modified EPA Method 5021 (headspace analysis on a gas chromatograph with electron capture detection)

<sup>b</sup> ND, not detected at the method reporting limit of 0.1  $\mu\text{g}/\text{kg}$  for carbon tetrachloride or 0.75  $\mu\text{g}/\text{kg}$  for chloroform.

TABLE 3.6 Analytical results for indoor air samples collected at Morrill, August 2010.

Street Address	Location	Concentration <sup>a</sup> (µg/m <sup>3</sup> )	
		Carbon Tetrachloride	Chloroform
104 Roxanna Street	First floor	ND <sup>c</sup>	1.1
	Basement	ND	1.3
105 Roxanna Street	First floor	ND	1.0
107 Roxanna Street	Back hallway	ND	ND
	Office	ND	ND
	Main room	ND	ND
108 Roxanna Street	First floor	ND	3.6
	Basement	ND	4.6
202 Roxanna Street	First floor	ND	3.5
	Basement	ND	ND
203 Roxanna Street	First floor	ND	8.7
96 Virginia Street	Shop office	ND	26
102 Virginia Street	First floor	ND	3.8
	Basement	ND	4.1
106 Virginia Street	First floor	ND	2.2
Ambient, MW1		ND	ND

<sup>a</sup> Laboratory analysis by TestAmerica Laboratories, South Burlington, Vermont, by EPA Method TO-15.

<sup>b</sup> Analysis for radon at Air Chek, Inc., Naples, North Carolina.

<sup>c</sup> ND, not detected at a method reporting limit of 1.3 µg/m<sup>3</sup> for carbon tetrachloride or 0.98 µg/m<sup>3</sup> for chloroform.

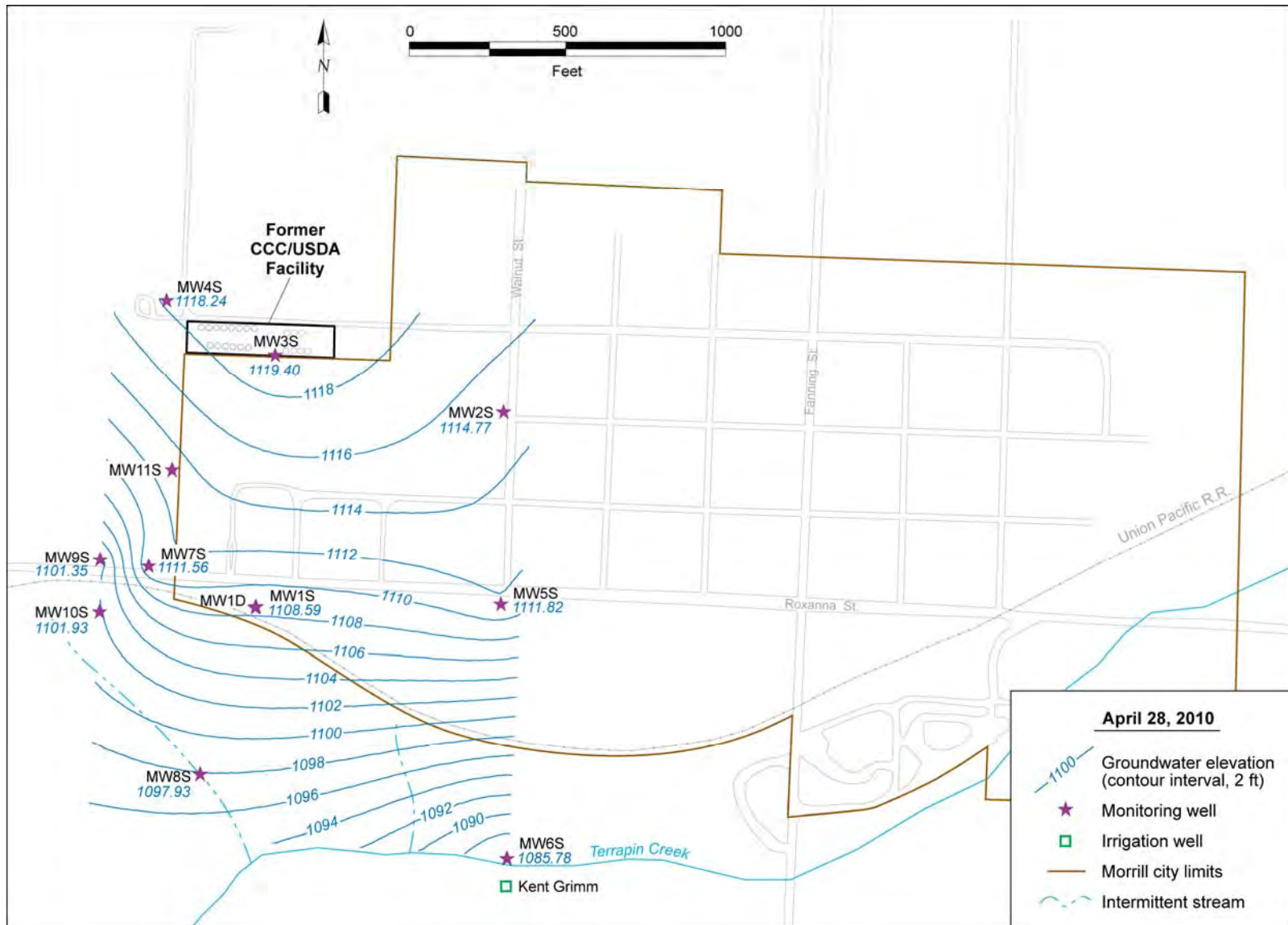


FIGURE 3.1a Potentiometric surface at Morrill, based on water levels measured manually on April 28, 2010.

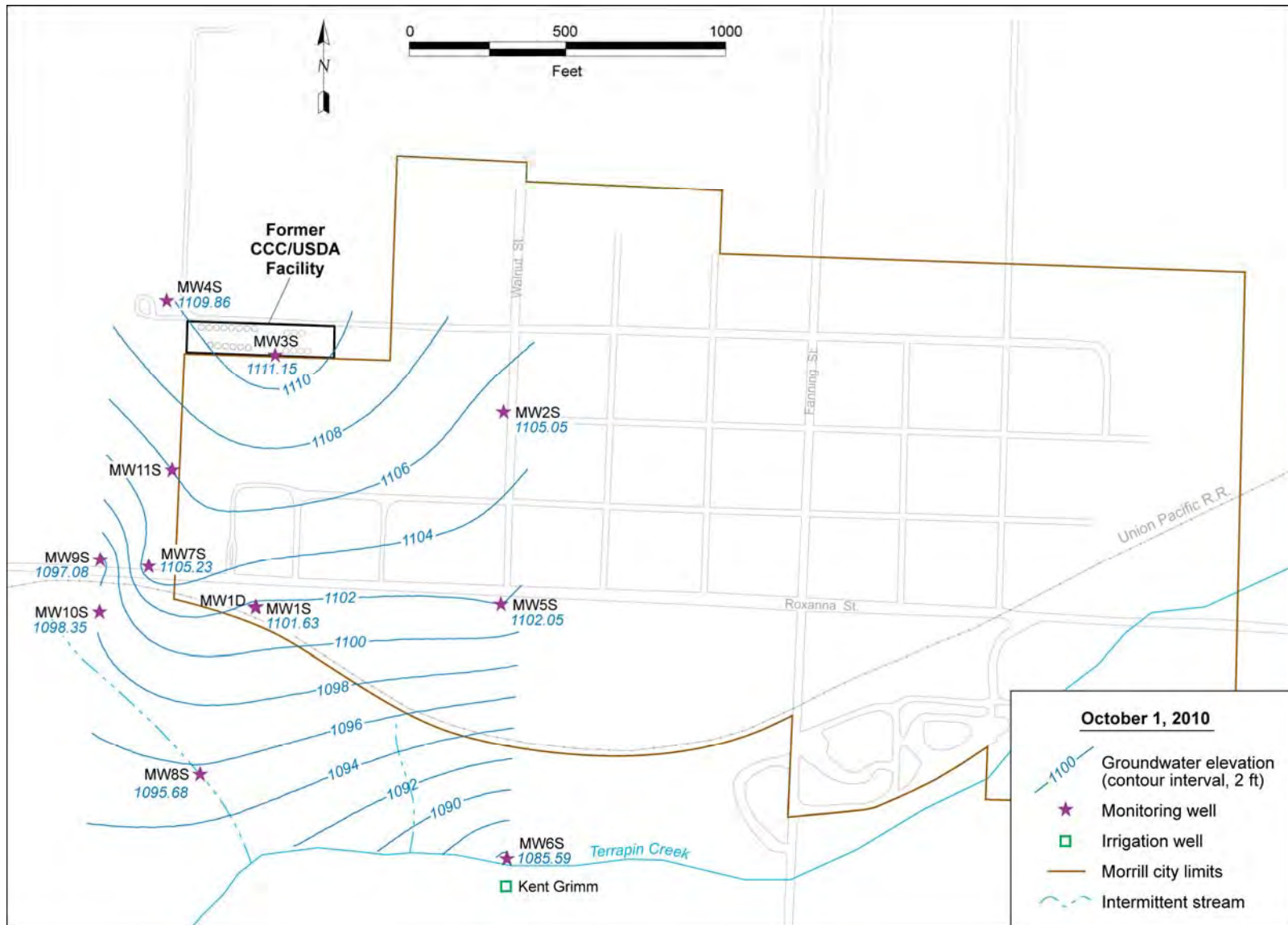


FIGURE 3.1b Potentiometric surface at Morrill, based on water levels measured manually on October 1, 2010.

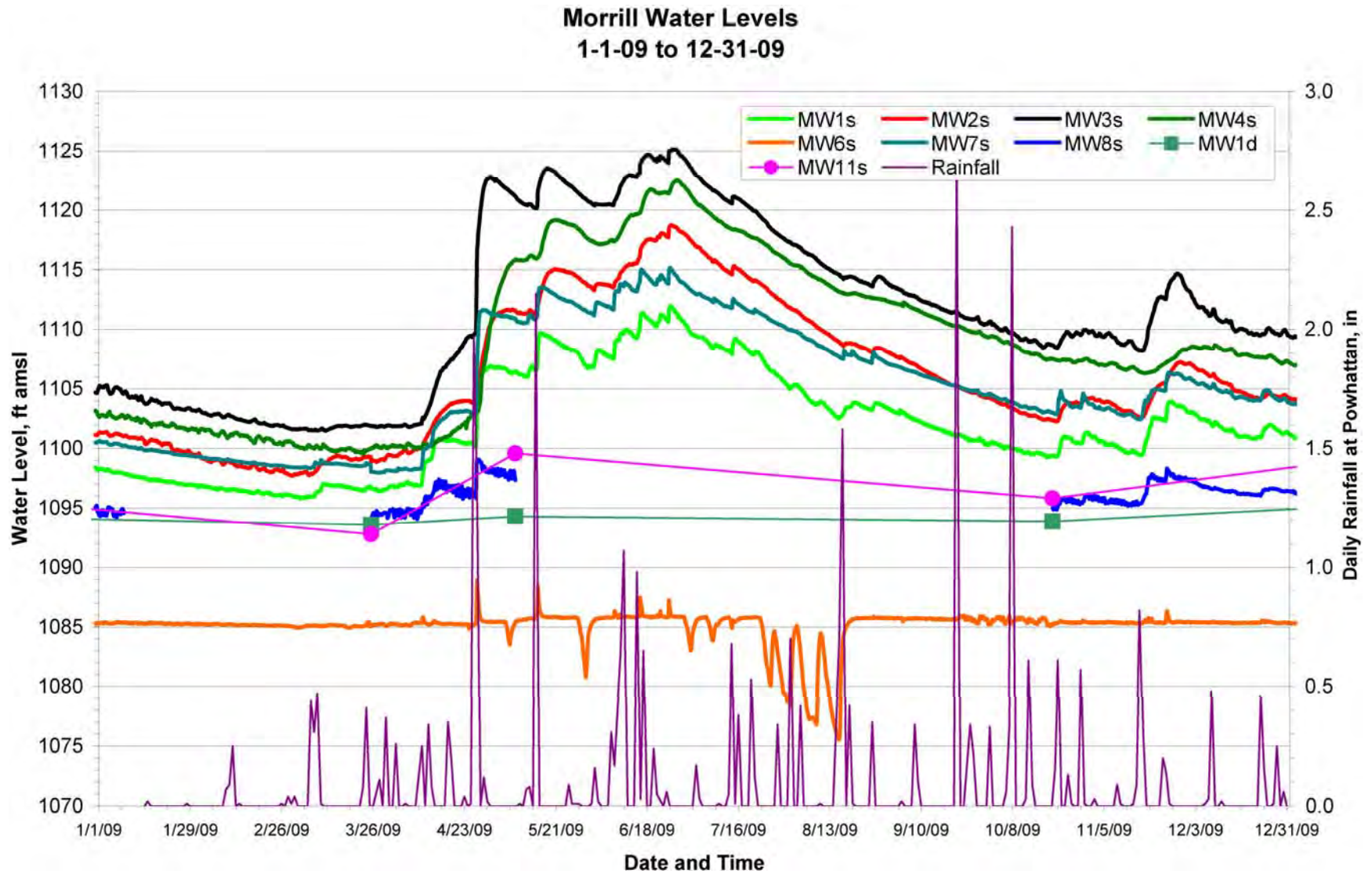


FIGURE 3.2a Hydrographs summarizing results of long-term water level monitoring from January 1, 2009, to December 31, 2009.



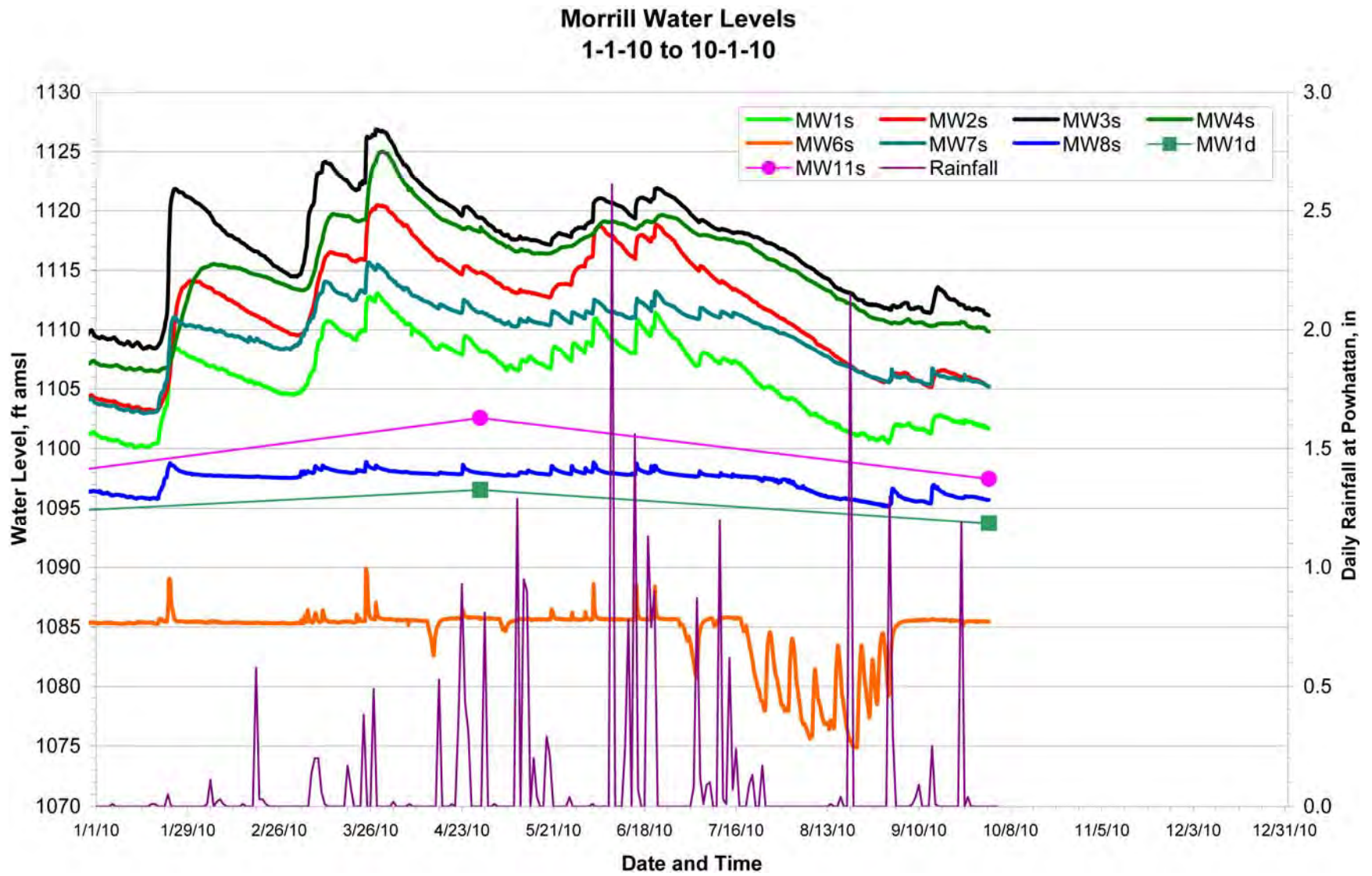


FIGURE 3.2b Hydrographs summarizing results of long-term water level monitoring from January 1, 2010, to October 1, 2010.

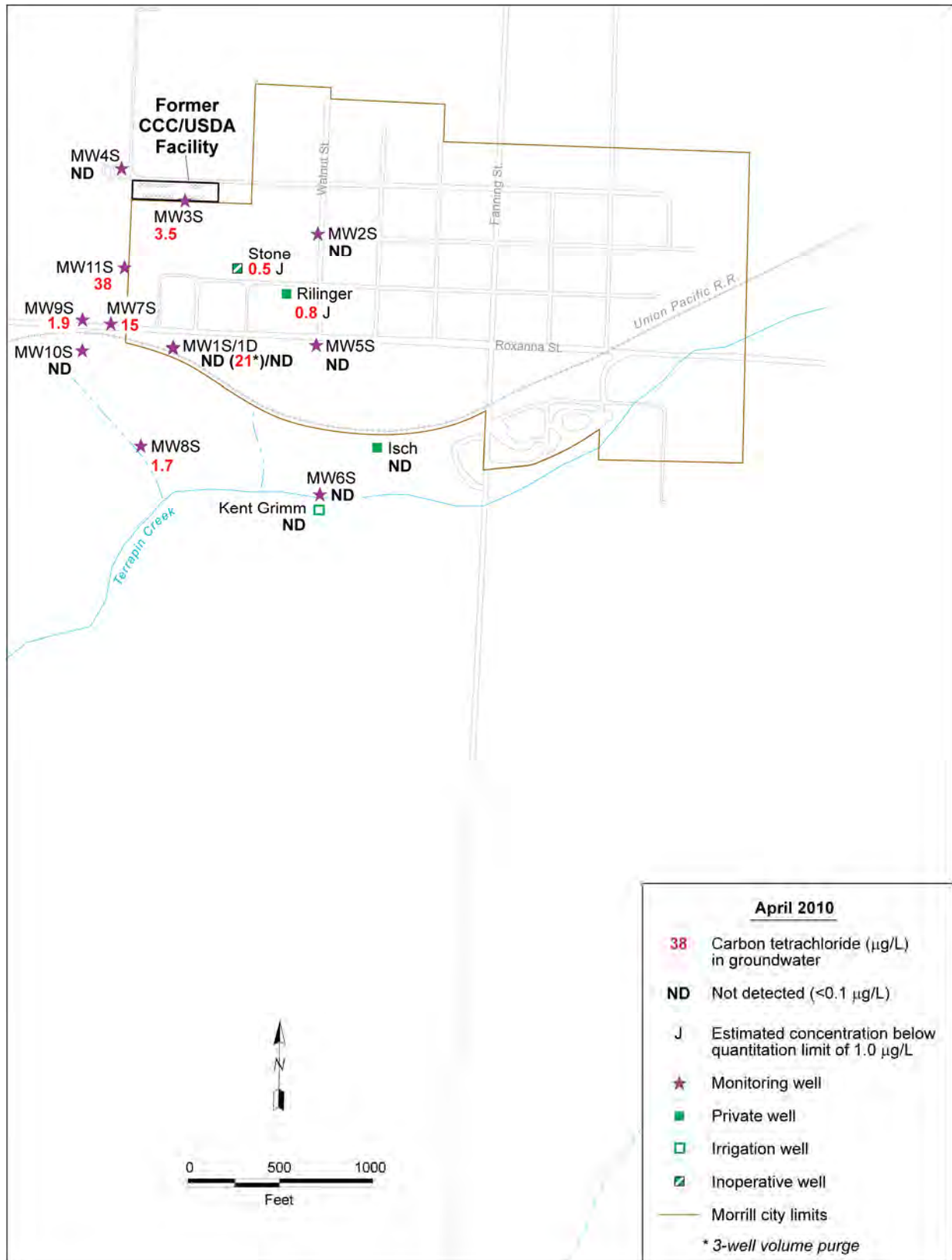


FIGURE 3.3a Carbon tetrachloride concentrations in groundwater at Morrill, April 2010.

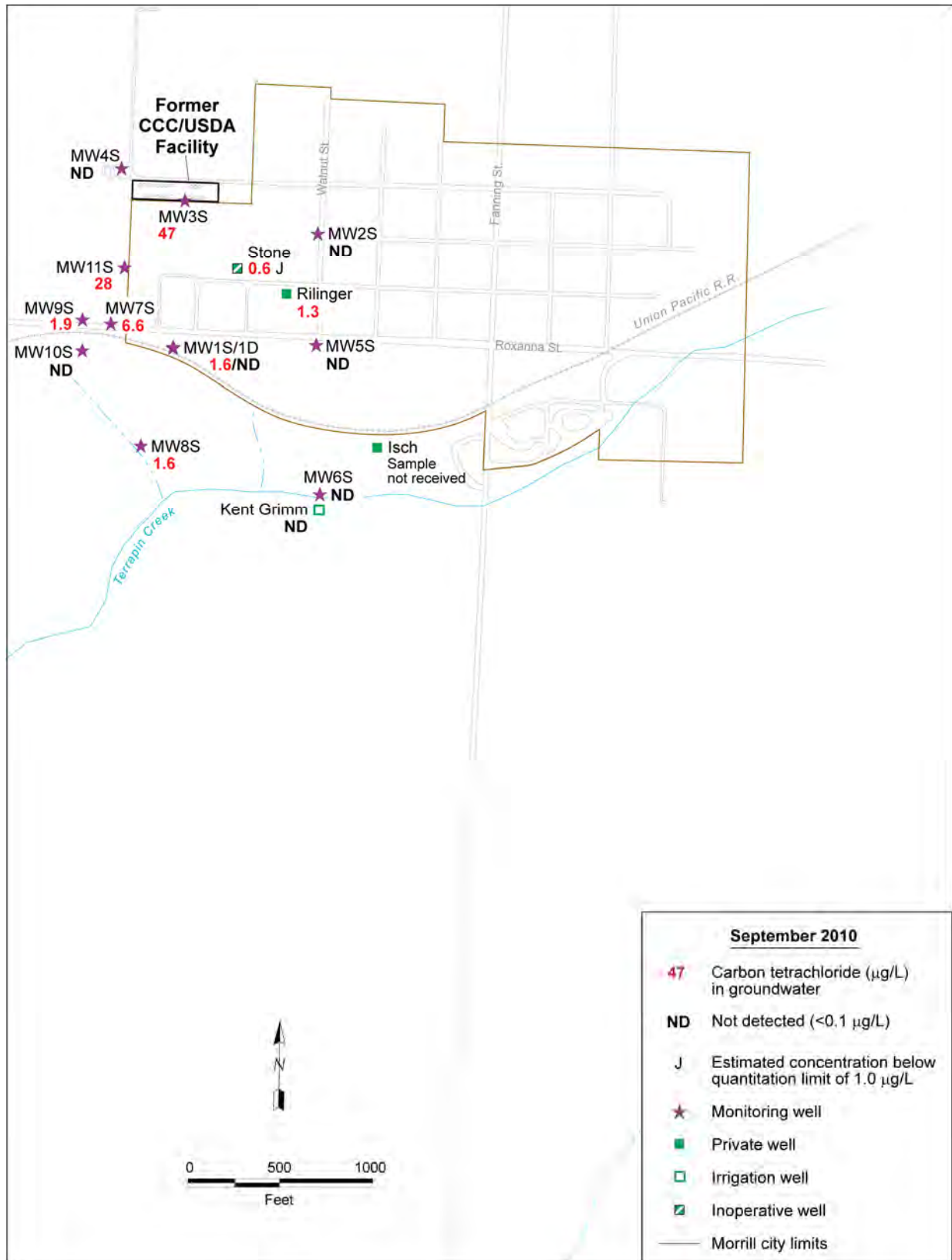


FIGURE 3.3b Carbon tetrachloride concentrations in groundwater at Morrill, September 2010.

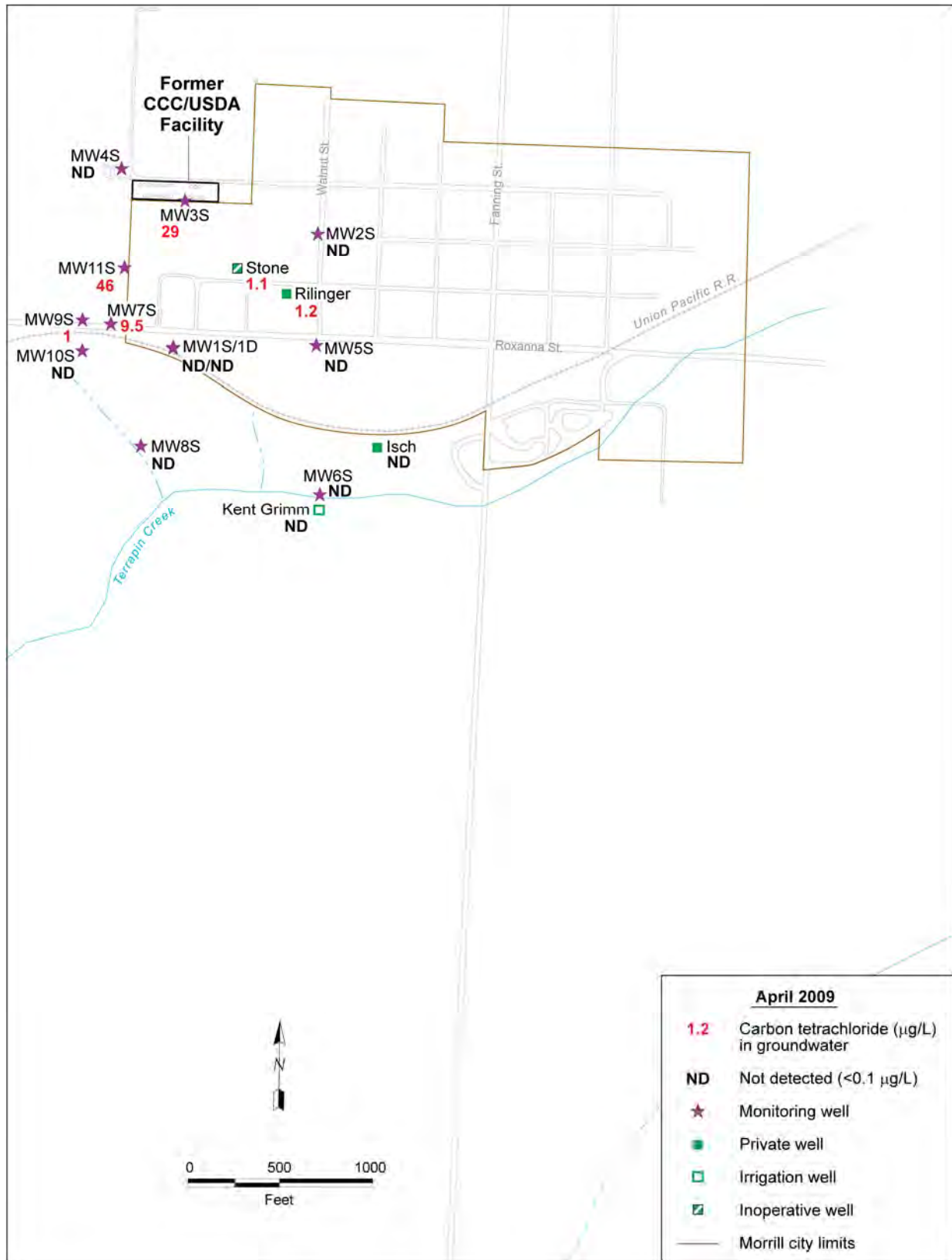


FIGURE 3.4a Carbon tetrachloride concentrations in groundwater at Morrill, April 2009.

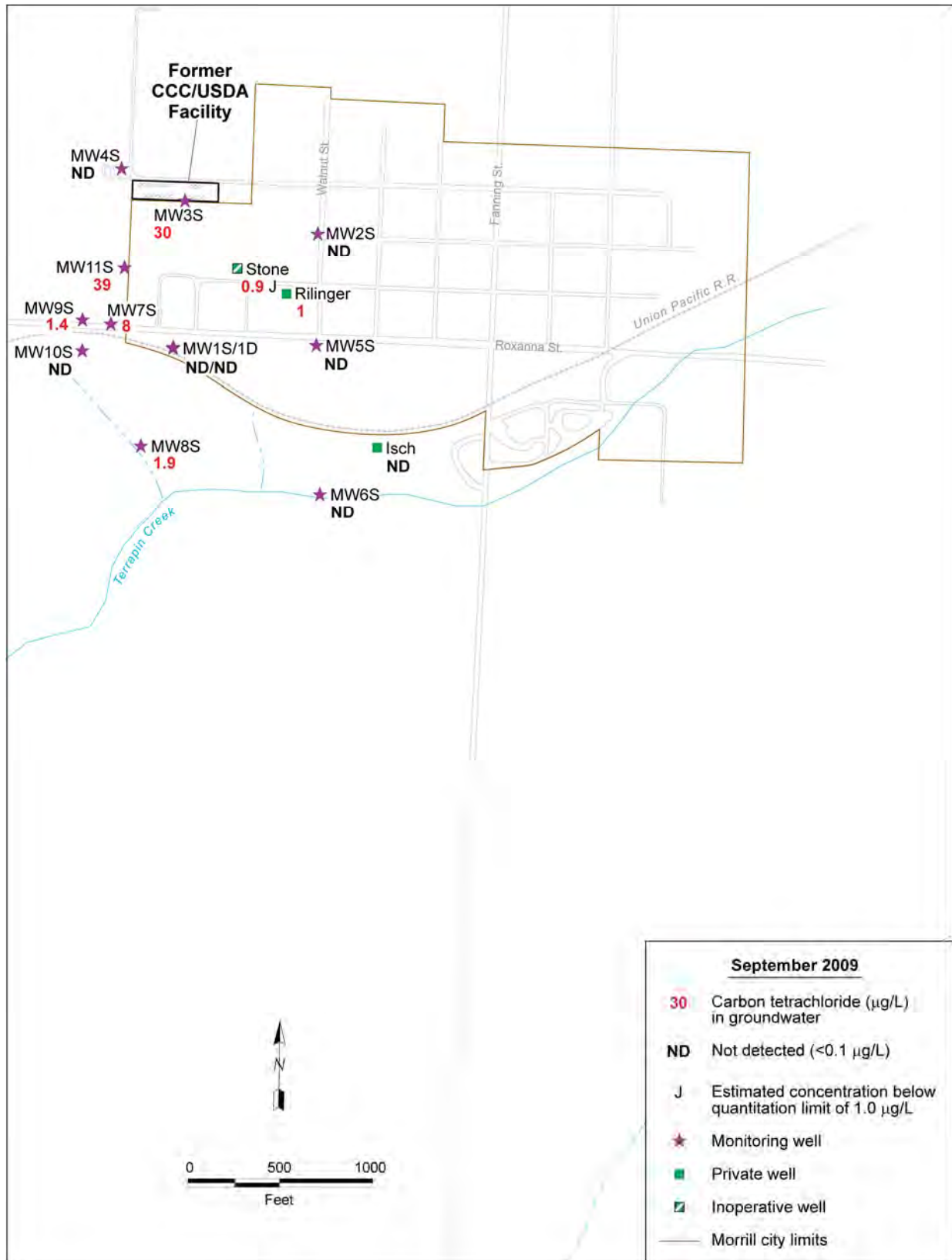


FIGURE 3.4b Carbon tetrachloride concentrations in groundwater at Morrill, September 2009.



FIGURE 3.5 Carbon tetrachloride concentrations in vegetation at Morrill, July 2010.



FIGURE 3.6 Carbon tetrachloride concentrations in indoor air at Morrill, August 2010.

## 4 Conclusions and Recommendations

### 4.1 Conclusions

The findings of the April 2010 and September 2010 monitoring events at Morrill support the following conclusions:

- Groundwater flow during the early spring and the later part of this review period was predominantly to the south, from the vicinity of the former CCC/USDA facility toward Terrapin Creek. In late spring, a slight shift occurred toward the southwest in the immediate vicinity of the intermittent tributary that flows into Terrapin Creek. This shift in the late spring reflected transient seasonal precipitation and recharge that resulted in higher groundwater levels at this time.
- No significant changes were observed in the concentration or distribution of carbon tetrachloride in the groundwater at Morrill during 2010, or in comparison to the results of the spring and fall 2009 monitoring events. A maximum carbon tetrachloride concentration of 47 µg/L was identified in groundwater — at well MW3S — during the September 2010 sampling event.
- No carbon tetrachloride contamination was detected in surface waters or shallow streambed sediments sampled at five locations along Terrapin Creek, downgradient from the former CCC/USDA facility, indicating that Terrapin Creek remains unaffected by the contaminant plume.
- Sampling of tree branch tissues from existing trees for VOCs analyses can be an indicator of shallow subsurface groundwater contamination. Detections of carbon tetrachloride in vegetation at the Morrill site to date have been generally consistent with the documented location of the groundwater plume. In July 2010, trace concentrations of carbon tetrachloride were detected in vegetation samples collected from trees at 3 of the 42 sampled locations south (downgradient) of the former CCC/USDA facility. The low-level detections in vegetation in the absence of detectable contamination in surface water and



sediment confirm the value of vegetation sampling as an early indicator of contaminant migration.

- A work plan for the investigation of the potential for vapor intrusion into homes along the identified extent of the carbon tetrachloride plume and extending 100 ft laterally was submitted and approved by the KDHE (2010b). Sampling of indoor air was conducted in August 2010. Carbon tetrachloride was not detected in any of the indoor air samples. Low concentrations of chloroform, indicative of indoor air sources, were detected. Additionally, low radon levels were detected.

## 4.2 Recommendations

- Comparisons of the low-flow and three-well-volume purging methods indicate that low-flow sampling provides representative results at the majority of the Morrill monitoring wells, except for MW1S, which is located in the heart of the plume and is screened over a 40-ft interval. Investigation of modified or alternative sampling methods will continue to ensure that representative samples for analysis can be reliably obtained from this well.
- A significant decline in the maximum detected concentration of carbon tetrachloride has been evident since the initial sampling in 1995, when the contaminant was detected in groundwater at the former CCC/USDA facility at 390 µg/L. The current maximum levels are < 50 µg/L. The accumulated results of 12 monitoring events since 2004 have demonstrated little change in the carbon tetrachloride contamination in terms of migration, concentration, or internal distribution in the affected area. At the request of KDHE (2010c), semi-annual groundwater sampling will continue.
- Because of the consistency of analytical results for vegetation samples collected since 2006 and the very low levels of carbon tetrachloride detected in only a few locations, the frequency of this sampling should be decreased to once every two years. Sampling at the height of the growing season is a sensitive indicator of contaminant migration and uptake by trees. Sampling

every two years will be protective, in view of the slow contaminant migration rate at Morrill.

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**Appendix A:**

**Sampling Activities at Morrill in 2010**



TABLE A.1 Sequence of sampling activities in April-September 2010 at Morrill, Kansas.

Sample Date	Time	Sample	Medium <sup>a</sup>	Type <sup>a</sup>	Location	Depth (ft BGL)	Chain of Custody	Shipping Date	Sample Description
<i>April 2010 groundwater, surface water, and sediment sampling</i>									
4/6/10	11:24	MRMW7S-W-29989	Water	MW	MW7S	20-45	2621	4/6/10	Depth to water = 6.38 ft. Depth of 4-in. well = 47 ft. Sample collected by using low-flow bladder pump after purging of 5.4 L. Pump intake positioned at 32.5 ft. Aliquots collected for verification analysis.
4/6/10	12:02	MRMW10S-W-29992	Water	MW	MW10S	30-45	2621	4/6/10	Depth to water = 7.5 ft. Depth of 2-in. well = 49.7 ft. Sample collected by using low-flow bladder pump after purging of 9 L. Pump intake positioned at 37.5 ft. Aliquots collected for verification analysis.
4/6/10	12:08	MRMW9S-W-29991	Water	MW	MW9S	38.83-53.83	2621	4/6/10	Depth to water = 16.5 ft. Depth of 2-in. well = 58.5 ft. Sample collected by using low-flow bladder pump after purging of 6 L. Pump intake positioned at 46.33 ft.
4/6/10	12:09	MRMW9SDUP-W-29998	Water	MW	MW9S	38.83-53.83	2621	4/6/10	Replicate of sample MRMW9S-W-29991.
4/6/10	12:50	MRMW11S-W-29993	Water	MW	MW11S	53-68	2621	4/6/10	Depth to water = 29.45 ft. Depth of 2-in. well = 72.7 ft. Sample collected by using low-flow bladder pump after purging of 6.5 L. Pump intake positioned at 60.5 ft.
4/6/10	13:00	MRQCIR-W-30000	Water	RI	QC	–	2620	4/6/10	Rinsate of decontaminated sampling line after collection of sample MRMW11S-W-29993.
4/6/10	13:14	MRMW8S-W-29990	Water	MW	MW8S	10-25	2621	4/6/10	Depth to water = 1.1 ft. Depth of 4-in. well = 26.8 ft. Sample collected by using low-flow bladder pump after purging of 8 L. Pump intake positioned at 17.5 ft.
4/6/10	14:00	MRS M4-W-29977	Water	SW	SM4	–	2620	4/6/10	Water sample from Terrapin Creek.
4/6/10	14:01	MRS M4-S-29977	Soil	Sed	SM4	–	2625	4/6/10	Sediment sample from Terrapin Creek.
4/6/10	14:06	MRTD12-W-29997	Water	DW	TD12	27-67	2621	4/6/10	Collected from Grimm well overflow before catch pond.
4/6/10	14:14	MRS M2-W-29975	Water	SW	SM2	–	2620	4/6/10	Water sample from Terrapin Creek.
4/6/10	14:15	MRS M2-S-29975	Soil	Sed	SM2	–	2625	4/6/10	Sediment sample from Terrapin Creek.
4/6/10	14:22	MRS M1-W-29974	Water	SW	SM1	–	2620	4/6/10	Water sample from Terrapin Creek.
4/6/10	14:23	MRS M1-S-29974	Soil	Sed	SM1	–	2625	4/6/10	Sediment sample from Terrapin Creek.
4/6/10	14:30	MRS MB-W-29978	Water	SW	SMB	–	2620	4/6/10	Water sample from Terrapin Creek.

TABLE A.1 (Cont.)

Sample Date	Time	Sample	Medium <sup>a</sup>	Type <sup>a</sup>	Location	Depth (ft BGL)	Chain of Custody	Shipping Date	Sample Description
<i>April 2010 groundwater, surface water, and sediment sampling (cont.)</i>									
4/6/10	14:31	MRSMB-S-29978	Soil	Sed	SMB	–	2625	4/6/10	Sediment sample from Terrapin Creek.
4/6/10	14:44	MRSM3-W-29976	Water	SW	SM3	–	2620	4/6/10	Water sample from Terrapin Creek.
4/6/10	14:45	MRSM3-S-29976	Soil	Sed	SM3	–	2625	4/6/10	Sediment sample from Terrapin Creek.
4/6/10	14:48	MRMW4S-W-29986	Water	MW	MW4S	17-47	2621	4/6/10	Depth to water = 21.8 ft. Depth of 4-in. well = 47.85 ft. Sample collected by using bailer after purging of 5.5 L. Pump intake positioned at 34.83 ft. Aliquots collected for verification analysis.
4/6/10	15:26	MRMW6S-W-29988	Water	MW	MW6S	10-25	2621	4/6/10	Depth to water = 6.15 ft. Depth of 4-in. well = 26.9 ft. Sample collected by using low-flow bladder pump after purging of 8 L. Pump intake positioned at 17.5 ft.
4/6/10	15:45	MRMW3S-W-29985	Water	MW	MW3S	18-48	2621	4/6/10	Depth to water = 12.14 ft. Depth of 4-in. well = 47.80 ft. Sample collected by using low-flow bladder pump after purging of 6 L. Pump intake positioned at 33 ft.
4/6/10	16:45	MRMW2S-W-29984	Water	MW	MW2S	13-53	2621	4/6/10	Depth to water = 18.57 ft. Depth of 4-in. well = 53.42 ft. Sample collected by using low-flow bladder pump after purging of 6.5 L. Pump intake positioned at 36 ft.
4/6/10	16:50	MRQCTB-W-30003	Water	TB	QC	–	2620	4/6/10	Trip blank sent to the AGEM Laboratory for organic analysis with water samples listed on chain-of-custody forms (COCs) 2621 and 2620.
4/6/10	17:09	MRMW1D-W-29983	Water	MW	MW1D	63-88	2621	4/6/10	Depth to water = 24.7 ft. Depth of 4-in. well = 89 ft. Sample collected by using low-flow bladder pump after purging of 8.5 L. Pump intake positioned at 75.5 ft.
4/7/10	11:15	MRMW5S-W-29987	Water	MW	MW5S	15-55	3200	4/7/10	Depth to water = 8.32 ft. Depth of 4-in. well = 54.50 ft. Sample collected by using low-flow bladder pump after purging of 5.5 L. Pump intake positioned at 35 ft.
4/7/10	11:43	MRMW1SB-W-29979	Water	MW	MW1S	11-51	3200	4/7/10	Low-flow pump 5 ft above base of screen. Depth to water = 11.65 ft. Depth of 4-in. well = 51.31 ft. Sample collected by using low-flow bladder pump after purging of 6 L. Pump intake positioned at 46.3 ft. Aliquots collected for verification analysis.

TABLE A.1 (Cont.)

Sample Date	Time	Sample	Medium <sup>a</sup>	Type <sup>a</sup>	Location	Depth (ft BGL)	Chain of Custody	Shipping Date	Sample Description
<i>April 2010 groundwater, surface water, and sediment sampling (cont.)</i>									
4/7/10	11:46	MRSTONE-W-29996	Water	DW	Stone	43	3200	4/7/10	Purged 5 gal with bailer, then sampled. Rinsate of decontaminated sampling line after collection of sample MRMW1SB-W-29979.
4/7/10	11:50	MRQCIR-W-30001	Water	RI	QC	–	3200	4/7/10	
4/7/10	12:08	MRRILLINGER-W-29995	Water	DW	Rillinger	11-51	3200	4/7/10	Let pump run for 5 min, then sampled. Low-flow pump near middle of water column. Depth to water = 11.57 ft. Depth of 4-in. well = 51.31 ft. Sample collected by using low-flow bladder pump after purging of 6 L. Pump intake positioned at 31.5 ft. Aliquots collected for verification analysis.
4/7/10	12:35	MRMW1SM-W-29980	Water	MW	MW1S		3200	4/7/10	
4/7/10	12:57	MRQCIR-W-30002	Water	RI	QC	–	3200	4/7/10	Rinsate of decontaminated sampling line after collection of sample MRMW1SM-W-29980.
4/7/10	13:25	MRMW1ST-W-29981	Water	MW	MW1S	11-51	3200	4/7/10	Low-flow pump 5 ft below water level. Depth to water = 11.65 ft. Depth of 4-in. well = 51.3 ft. Sample collected by using low-flow bladder pump after purging of 7 L. Pump intake positioned at 16.6 ft. Aliquots collected for verification analysis.
4/7/10	15:20	MRMW1S3X-W-29982	Water	MW	MW1S	11-51	3200	4/7/10	Sample collected after purging of three well volumes. Depth to water = 11.48 ft. Depth of 4-in. well = 51.3 ft. Sample collected by using low-flow bladder pump after purging of 80 gal. Pump intake positioned at 49 ft. Aliquots collected for verification analysis.
4/7/10	15:33	MRISCH-W-29994	Water	DW	Isch	–	3200	4/7/10	Let pump run for 5 min, then sampled. Co-op had been using the well in the previous few days.
4/7/10	16:00	MRQCTB-W-30004	Water	TB	QC	–	3200	4/7/10	Trip blank sent to the AGEM Laboratory for organic analysis with water samples listed on COC 3200 and to Test America for verification organic analysis with water samples listed on COC 3180.
<i>July 2010 vegetation sampling</i>									
7/27/10	12:40	MR021-B-31920	Veg	Branch	MR021	–	2938	7/28/10	Juniper near Bin 20.

TABLE A.1 (Cont.)

Sample Date	Time	Sample	Medium <sup>a</sup>	Type <sup>a</sup>	Location	Depth (ft BGL)	Chain of Custody	Shipping Date	Sample Description
<i>July 2010 vegetation sampling (cont.)</i>									
7/27/10	12:48	MR023-B-31921	Veg	Branch	MR023	–	2938	7/28/10	Mulberry near Bin 8. Hackberry gone near Bin 20.
7/27/10	12:51	MR024-B-31922	Veg	Branch	MR024	–	2938	7/28/10	First row of black walnuts over electric fence, southeast of site.
7/27/10	12:53	MR020-B-31923	Veg	Branch	MR020	–	2938	7/28/10	Large sugar maple near house at 104 Roxanna St., close to hydrant.
7/27/10	12:56	MR019-B-31924	Veg	Branch	MR019	–	2938	7/28/10	Large silver maple near pumphouse.
7/27/10	13:02	MR005A-B-31925	Veg	Branch	MR005A	–	2938	7/28/10	Willow west of the MR005 maple, on north side of creek.
7/27/10	13:06	MR004-B-31926	Veg	Branch	MR004	–	2938	7/28/10	Willow close to creek; still has flagging.
7/27/10	13:10	MR003-B-31927	Veg	Branch	MR003	–	2938	7/28/10	Large willow north side of creek; has flagging. Multistem. Dying top.
7/27/10	13:12	MR002-B-31928	Veg	Branch	MR002	–	2938	7/28/10	Large willow on north side of creek near bend. Steep bank, eroded.
7/27/10	13:15	MR001-B-31929	Veg	Branch	MR001	–	2938	7/28/10	Large willow near old garbage bonfire.
7/27/10	13:21	MR013-B-31930	Veg	Branch	MR013	–	2938	7/28/10	Headed over railroad tracks to agricultural field access. Large willow in ditch near culvert; has flag.
7/27/10	13:30	MR006-B-31931	Veg	Branch	MR006	–	2938	7/28/10	Large cottonwood; has no flag. North side of creek. Weeds very high. Flooding area.
7/27/10	13:35	MR007-B-31932	Veg	Branch	MR007	–	2938	7/28/10	Large willow has no flag. North side of creek near MW8S. Agricultural field is in corn this year, planted right up to woods at edge of creek.
7/27/10	13:40	MR008-B-31933	Veg	Branch	MR008	–	2938	7/28/10	Large cottonwood next to small willow; no flag.
7/27/10	13:45	MR014-B-31934	Veg	Branch	MR014	–	2938	7/28/10	Large multistem willow northeast of creek.
7/27/10	13:50	MR009-B-31935	Veg	Branch	MR009	–	2940	7/28/10	Three-stem willow east of creek; has flag.
7/27/10	13:52	MR010-B-31936	Veg	Branch	MR010	–	2940	7/28/10	Large elm in thicket east of creek; has flag and stake.
7/27/10	13:57	MR011-B-31937	Veg	Branch	MR011	–	2940	7/28/10	Large multistem Osage orange in thicket; has stake.
7/27/10	13:59	MR012-B-31938	Veg	Branch	MR012	–	2940	7/28/10	Large recumbent willow across creek; from south to north branches. Buried in weeds on north bank.
7/27/10	14:05	MR016-B-31939	Veg	Branch	MR016	–	2940	7/28/10	Two-stemmed willow buried in weeds.
7/27/10	14:05	MR017-B-31940	Veg	Branch	MR017	–	2940	7/28/10	Very small willow on north side slope; has flag.

TABLE A.1 (Cont.)

Sample Date	Time	Sample	Medium <sup>a</sup>	Type <sup>a</sup>	Location	Depth (ft BGL)	Chain of Custody	Shipping Date	Sample Description
<i>July 2010 vegetation sampling (cont.)</i>									
7/27/10	14:12	MR018-B-31941	Veg	Branch	MR018	–	2940	7/28/10	Large multistem Osage orange north side of creek at bend; has flag. Buried in thicket.
7/28/10	7:40	MR025-B-31942	Veg	Branch	MR025	–	2940	7/28/10	Large group of mulberries (four trees). Branch sample from center, largest trunk, on fencerow west of grain bins.
7/28/10	7:45	MR026-B-31943	Veg	Branch	MR026	–	2940	7/28/10	Large solitary pear tree east of grain bins in field off Kansas St.
7/28/10	7:50	MR027-B-31944	Veg	Branch	MR027	–	2940	7/28/10	Large white ash in front of old wood-sided house.
7/28/10	7:55	MR028-B-31945	Veg	Branch	MR028	–	2940	7/28/10	Large black walnut, northeast corner of Downing and Harrison Sts.
7/28/10	7:57	MR029-B-31946	Veg	Branch	MR029	–	2940	7/28/10	Large green ash on southwest corner of Downing and Elliot Sts., opposite church and park.
7/28/10	8:00	MR030-B-31947	Veg	Branch	MR030	–	2940	7/28/10	Large silver maple on south side of Roxanna; end of Downing St. house # 305.
7/28/10	8:10	MR031-B-31948	Veg	Branch	MR031	–	2940	7/28/10	Large black walnut on southwest corner of Roxanna and Walnut. House # 206.
7/28/10	8:15	MR032-B-31949	Veg	Branch	MR032	–	2940	7/28/10	Large hackberry on west side Walnut St., south of Elliot St., just south of House # 204.
7/28/10	8:18	MR033-B-31950	Veg	Branch	MR033	–	2942	7/28/10	Large pin oak in front yard of House # 200 on Virginia St., east of Miami St.
7/28/10	8:25	MR034-B-31951	Veg	Branch	MR034	–	2942	7/28/10	Large sugar maple on northwest corner Roxanna and Miami. House # 108.
7/28/10	8:30	MR035-B-31952	Veg	Branch	MR035	–	2942	7/28/10	American elm on fence line east of swale, south of Roxanna St, east of Miami, west of House #203.
7/28/10	8:35	MR036-B-31953	Veg	Branch	MR036	–	2942	7/28/10	Green ash in southeast corner of lot behind Grace Church. Border of woods on railroad track.
7/28/10	8:40	MR037-B-31954	Veg	Branch	MR037	–	2942	7/28/10	Austrian pine behind (south of) church; second tree from east.
7/28/10	8:45	MR038-B-31955	Veg	Branch	MR038	–	2942	7/28/10	Large silver maple on east edge of creek, south side of railroad track, west of black tank.
7/28/10	8:50	MR039-B-31956	Veg	Branch	MR039	–	2942	7/28/10	Medium hackberry, edge of thicket, east side of creek, south of railroad tracks.

TABLE A.1 (Cont.)

Sample Date	Time	Sample	Medium <sup>a</sup>	Type <sup>a</sup>	Location	Depth (ft BGL)	Chain of Custody	Shipping Date	Sample Description
<i>July 2010 vegetation sampling (cont.)</i>									
7/28/10	8:55	MR040-B-31957	Veg	Branch	MR040	–	2942	7/28/10	Large hackberry on fence line south of railroad tracks.
7/28/10	9:05	MR041-B-31958	Veg	Branch	MR041	–	2942	7/28/10	Large hackberry on fence line northwest of house (Roxanna), south of bins.
7/28/10	9:10	MR042-B-31959	Veg	Branch	MR042	–	2942	7/28/10	Small prunus northward along fence line, toward grain bins.
7/28/10	9:20	MR043-B-31960	Veg	Branch	MR043	–	2942	7/28/10	Mulberry on fence line, next field to the west along Roxanna (north side of Roxanna), southwest of bins.
7/28/10	9:23	MR044-B-31961	Veg	Branch	MR044	–	2942	7/28/10	Farther north along fence line, about 200 ft. Large mulberry.
<i>August 2010 indoor air sampling</i>									
8/12/10	15:07	104 Roxanna St., first floor	Air	Air	104 Roxanna St.	–	TA-1	8/12/10	Beginning pressure -28 in. Hg. Ending pressure 3 in. Hg.
8/12/10	15:11	104 Roxanna St., basement	Air	Air	104 Roxanna St.	–	TA-1	8/12/10	Beginning pressure -28 in. Hg. Ending pressure 0 in. Hg.
8/12/10	15:29	102 Virginia St., first floor	Air	Air	102 Virginia St.	–	TA-1	8/12/10	Beginning pressure -29 in. Hg. Ending pressure 8 in. Hg.
8/12/10	15:33	102 Virginia St., basement	Air	Air	102 Virginia St.	–	TA-1	8/12/10	Beginning pressure -28 in. Hg. Ending pressure 6 in. Hg.
8/12/10	13:04	202 Roxanna St., first floor	Air	Air	202 Roxanna St.	–	TA-2	8/12/10	Beginning pressure -29 in. Hg. Ending pressure 6 in. Hg.
8/12/10	13:06	202 Roxanna St., basement	Air	Air	202 Roxanna St.	–	TA-2	8/12/10	Beginning pressure -30 in. Hg. Ending pressure 10 in. Hg.
8/12/10	13:17	203 Roxanna St., first floor	Air	Air	203 Roxanna St.	–	TA-2	8/12/10	Beginning pressure -27 in. Hg. Ending pressure 6 in. Hg.
8/12/10	17:16	107 Roxanna St., main room	Air	Air	107 Roxanna St.	–	TA-2	8/12/10	Beginning pressure -28 in. Hg. Ending pressure 7 in. Hg.
8/12/10	14:34	96 Virginia St., office	Air	Air	96 Virginia St.	–	TA-3	8/12/10	Beginning pressure -28 in. Hg. Ending pressure 4 in. Hg.
8/12/10	14:47	Ambient air, MW1	Air	Air	Ambient air	–	TA-3	8/12/10	Beginning pressure -28 in. Hg. Ending pressure 7 in. Hg.
8/12/10	17:11	107 Roxanna St., office	Air	Air	107 Roxanna St.	–	TA-3	8/12/10	Beginning pressure -28 in. Hg. Ending pressure 6 in. Hg.
8/12/10	17:14	107 Roxanna St., back hallway	Air	Air	107 Roxanna St.	–	TA-3	8/12/10	Beginning pressure -28 in. Hg. Ending pressure 8 in. Hg.
8/12/10	15:39	108 Roxanna St., first floor	Air	Air	108 Roxanna St.	–	TA-4	8/12/10	Beginning pressure -28 in. Hg. Ending pressure 7 in. Hg.

TABLE A.1 (Cont.)

Sample Date	Time	Sample	Medium <sup>a</sup>	Type <sup>a</sup>	Location	Depth (ft BGL)	Chain of Custody	Shipping Date	Sample Description
<i>August 2010 indoor air sampling (cont.)</i>									
8/12/10	15:43	108 Roxanna St., basement	Air	Air	108 Roxanna St.	–	TA-4	8/12/10	Beginning pressure -28 in. Hg. Ending pressure 7 in. Hg.
8/12/10	14:51	106 Virginia St., first floor	Air	Air	106 Virginia St.	–	TA-4	8/12/10	Beginning pressure -28 in. Hg. Ending pressure 8 in. Hg.
8/12/10	17:03	105 Roxanna St., first floor	Air	Air	105 Roxanna St.	–	TA-4	8/12/10	Beginning pressure -28 in. Hg. Ending pressure 7 in. Hg.
<i>September 2010 groundwater, surface water, and sediment sampling</i>									
9/22/10	8:10	MRSM4-W-30008	Water	SW	SM4	–	2691	9/23/10	Water sample from Terrapin Creek.
9/22/10	8:11	MRSM4-S-30008	Soil	Sed	SM4	–	2690	9/23/10	Sediment sample from Terrapin Creek.
9/22/10	8:15	MRSM3-W-30007	Water	SW	SM3	–	2691	9/23/10	Water sample from Terrapin Creek.
9/22/10	8:16	MRSM3-S-30007	Soil	Sed	SM3	–	2690	9/23/10	Sediment sample from Terrapin Creek.
9/22/10	8:21	MRSM2-W-30006	Water	SW	SM2	–	2691	9/23/10	Water sample from Terrapin Creek.
9/22/10	8:22	MRSM2-S-30006	Soil	Sed	SM2	–	2690	9/23/10	Sediment sample from Terrapin Creek.
9/22/10	8:27	MRSM1-W-30005	Water	SW	SM1	–	2691	9/23/10	Water sample from Terrapin Creek.
9/22/10	8:28	MRSM1-S-30005	Soil	Sed	SM1	–	2690	9/23/10	Sediment sample from Terrapin Creek.
9/22/10	8:39	MRSMB-W-30009	Water	SW	SMB	–	2691	9/23/10	Water sample from Terrapin Creek.
9/22/10	8:40	MRSMB-S-30009	Soil	Sed	SMB	–	2690	9/23/10	Sediment sample from Terrapin Creek.
9/22/10	10:14	MRMW6S-W-30016	Water	MW	MW6S	10-25	2691	9/23/10	Depth to water = 5.53 ft. Depth of 4-in. well = 26.9 ft. Sample collected by using low-flow bladder pump after purging of 8.75 L. Pump intake positioned at 17.5 ft.
9/22/10	10:43	MRSTONE-W-30024	Water	DW	Stone	43	2715	9/23/10	Purged 5 gal by using bailer, then sampled.
9/22/10	10:55	MRRILLINGER-W-30023	Water	DW	Rillinger	–	2715	9/23/10	Let pump run for 5 min, then sampled.
9/22/10	11:27	MRTD12-W-30025	Water	DW	TD12	27-67	2715	9/23/10	Collected from Grimm well overflow before the catch pond.
9/22/10	11:55	MRISCH-W-30022	Water	DW	Isch	–	2715	9/23/10	Let pump run for 5 min, then sampled. Well had not been used in a while. Listed on COC as "not received."
9/22/10	11:59	MRMW1D-W-30011	Water	MW	MW1D	63-88	2691	9/23/10	Depth to water = 27.92 ft. Depth of 4-in. well = 89 ft. Sample collected by using low-flow bladder pump after purging of 9 L. Pump intake positioned at 75.5 ft.
9/22/10	13:30	MRMW4S-W-30014	Water	MW	MW4S	17-47	2691	9/23/10	Depth to water = 33.15 ft. Depth of 4-in. well = 47.8 ft. Sample collected by using low-flow bladder pump after purging of 6 L. Pump intake positioned at 32 ft.
9/22/10	13:31	MRMW4SDUP-W-30027	Water	MW	MW4S	17-47	2715	9/23/10	Replicate of sample MRMW4S-W-30014.

TABLE A.1 (Cont.)

Sample Date	Time	Sample	Medium <sup>a</sup>	Type <sup>a</sup>	Location	Depth (ft BGL)	Chain of Custody	Shipping Date	Sample Description
<i>September 2010 groundwater, surface water, and sediment sampling (cont.)</i>									
9/22/10	13:36	MRMW8S-W-30018	Water	MW	MW8S	10-25	2691	9/23/10	Depth to water = 2.53 ft. Depth of 4-in. well = 26.8 ft. Sample collected by using low-flow bladder pump after purging of 9 L. Pump intake positioned at 17.5 ft.
9/22/10	13:37	MRMW8SDUP-W-30026	Water	MW	MW8S	10-25	2715	9/23/10	Replicate of sample MRMW8S-W-30018.
9/22/10	14:16	MRMW5S-W-30015	Water	MW	MW5S	15-55	2691	9/23/10	Depth to water = 19.25 ft. Depth of 4-in. well = 55 ft. Sample collected by using low-flow bladder pump after purging of 6.5 L. Pump intake positioned at 35 ft.
9/22/10	14:25	MRQCIR-W-30028	Water	RI	QC	–	2715	9/23/10	Rinsate of decontaminated sampling line after collection of sample MRMW5S-W-30015.
9/22/10	14:50	MRMW10S-W-30020	Water	MW	MW10S	30-45	2715	9/23/10	Depth to water = 11.69 ft. Depth of 2-in. well = 49.7 ft. Sample collected by using low-flow bladder pump after purging of 11 L. Pump intake positioned at 37.5 ft.
9/22/10	15:42	MRMW2S-W-30012	Water	MW	MW2S	13-53	2691	9/23/10	Depth to water = 31.25 ft. Depth of 4-in. well = 53 ft. Sample collected by using low-flow bladder pump after purging of 7 L. Pump intake positioned at 33 ft.
9/22/10	15:45	MRQCIR-W-30029	Water	RI	QC	–	2715	9/23/10	Rinsate of decontaminated sampling line after collection of sample MRMW10S-W-30020.
9/22/10	16:25	MRMW1S-W-30010	Water	MW	MW1S	11-51	2691	9/23/10	Depth to water = 19.89 ft. Depth of 4-in. well = 54 ft. Sample collected by using low-flow bladder pump after purging of 10 L. Pump intake positioned at 31 ft.
9/22/10	17:06	MRMW9S-W-30019	Water	MW	MW9S	38.83-53.83	2691	9/23/10	Depth to water = 21.15 ft. Depth of 2-in. well = 53.83 ft. Sample collected by using low-flow bladder pump after purging of 7 L. Pump intake positioned at 46.33 ft.
9/23/10	11:54	MRMW3S-W-30013	Water	MW	MW3S	18-48	2691	9/23/10	Depth to water = 23.73 ft. Depth of 4-in. well = 47.8 ft. Sample collected by using low-flow bladder pump after purging of 7 L. Pump intake positioned at 33 ft.
9/23/10	12:30	MRQCIR-W-30030	Water	RI	QC	–	2715	9/23/10	Rinsate of decontaminated sampling line after collection of sample MRMW3S-W-30013.



TABLE A.1 (Cont.)

Sample Date	Time	Sample	Medium <sup>a</sup>	Type <sup>a</sup>	Location	Depth (ft BGL)	Chain of Custody	Shipping Date	Sample Description
<i>September 2010 groundwater, surface water, and sediment sampling (cont.)</i>									
9/23/10	13:06	MRMW7S-W-30017	Water	MW	MW7S	20-45	2691	9/23/10	Depth to water = 14.15 ft. Depth of 4-in. well = 45 ft. Sample collected by using low-flow bladder pump after purging of 6 L. Pump intake positioned at 32.5 ft.
9/23/10	14:00	MRQCTB-W-30032	Water	TB	QC	–	2715	9/23/10	Trip blank sent to the AGEM Laboratory for organic analysis with water samples listed on COCs 2691 and 2715 and to Test America for verification organic analysis with water samples listed on COC 2174.
9/23/10	14:03	MRMW11S-W-30021	Water	MW	MW11S	53-68	2715	9/23/10	Depth to water = 34.75 ft. Depth of 2-in. well = 72.7 ft. Sample collected by using low-flow bladder pump after purging of 7 L. Pump intake positioned at 60.5 ft.
9/23/10	14:05	MRDIH2O-W-30031	Water	FB	QC	–	2715	9/23/10	Blank of water used for equipment decontamination.

<sup>a</sup> Medium and sample type abbreviations: DW, domestic well; MW, monitoring well; RI, equipment rinsate; SW, surface water; sed, sediment; TB, trip blank; veg, vegetation.

**Appendix B:**  
**Indoor Air Sampling Plan**

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### **Revised Work Plan: Indoor Air and Ambient Air Sampling near the Former CCC/USDA Grain Storage Facility in Morrill, Kansas**

The Commodity Credit Corporation of the U.S. Department of Agriculture (CCC/USDA) operated a grain storage facility in the northwestern section of Morrill, Kansas, from 1950 to 1971. The property continued to be used for grain storage after 1971. Sampling by the Kansas Department of Health and Environment (KDHE) in 1985 resulted in the detection of carbon tetrachloride in one public well. Subsequent investigations conducted by and for the KDHE confirmed the presence of carbon tetrachloride (KDHE 1989; GeoCore 1994, 1996).

On behalf of the CCC/USDA, in 2003 Argonne National Laboratory began a series of investigations at Morrill and established a monitoring program to characterize and track the contamination (Argonne 2004, 2005a,b, 2006, 2007a,b,c,d, 2008a,b, 2009). Automatic, continuous monitoring of groundwater levels began in 2004 and is ongoing at seven locations. The results have consistently indicated groundwater flow toward the south-southeast from the former CCC/USDA property. Sitewide periodic sampling of groundwater, surface water, streambed sediment, and vegetation, with analysis for volatile organic compounds (VOCs), began in 2005-2007. At present, the sampling is twice yearly, as approved by the KDHE (2007a).

This document presents a plan for collecting indoor air samples in homes located along and adjacent to the defined extent of carbon tetrachloride contamination. The plan was requested by the KDHE (2009). Ambient air samples to represent the conditions along this pathway will also be taken.

#### *Project Objective*

The purpose of the proposed work is to satisfy KDHE requirements and to collect additional data for assessing the risk to human health due to the potential upward migration of carbon tetrachloride and its primary degradation product (chloroform) into homes located in close proximity to the former grain storage facility and along and within 100 ft laterally from the currently defined plume emanating from the former Morrill facility. Investigation of the indoor air environment was not a defined objective during Argonne's previous investigations at Morrill, as they predated the more recent regulatory guidance (KDHE 2007b) regarding the potential health risks associated with the vapor contaminant pathway.

#### *Proposed Work: Collection of Indoor Air and Ambient Air Samples*

*Sampling Procedure.* Indoor air samples will be collected at the designated homes. In addition, representative ambient air samples will be collected. All collection protocols will be in compliance with the KDHE (2007b) vapor intrusion guidance and KDHE standard operating procedure (SOP) BER-33. Dr. Blayne Hartman (Hartman Environmental Geoscience, Solana Beach, California), a recognized expert in the field of vapor intrusion, will advise Argonne staff as to specific protocols prior to the sampling event. He will also collaborate with Argonne and

the CCC/USDA, as well as the KDHE, in interpretation of the results of the vapor intrusion investigation.

Figure 1 illustrates the current interpreted configuration of the carbon tetrachloride plume (derived from a series of monitoring events spanning the period April 2008 to September 2009) at and emanating from the former CCC/USDA facility. Figure 2 provides a detailed view, with the addresses of the homes to be potentially sampled.

Because the plume boundary between the 0- $\mu\text{g}/\text{L}$  and 25- $\mu\text{g}/\text{L}$  contours (Figure 2) is not well defined, the sampling will be done in two phases. Phase 1 will include the 12 homes that fall laterally within 100 ft of the 25- $\mu\text{g}/\text{L}$  contour. These 12 homes are identified in Figure 3. The addresses are summarized in the top section of Table 1. Phase 2 will address any additional houses selected, on the basis of the Phase 1 results, from the list in the bottom section of Table 1.

Table 2 summarizes the locations within the monitoring well network, the analytical results for the April and September 2009 sampling events, and the measured depths to groundwater during these events. The homes identified in Table 1 for potential sampling are located directly downgradient from the former facility (on Hanson Street), south and east to Roxanna, Walnut, and Virginia Streets. The plume, as currently constrained, trends to the south-southeast from the former facility, across agricultural land and along the western edge of the Morrill community. The plume continues to Terrapin Creek, again across agricultural lands, with no residences.

*Sample Location.* Samplers will be placed in the basement and on the first floor of each residence, in a location of common occupancy (as allowed by the residents). Samples will be collected as close to the center of the room as possible, away from heating system registers, and at a height of 3-7 ft above the floor (in the breathing zone). Samples will be collected in Summa canisters, individually certified clean, for a period of 24 hr. Meteorological conditions will be noted and recorded. Page 1 of the KDHE Field Data Air Sampling Form (in SOP BER-33) will be completed.

*Ambient Air Samples.* To be representative of the site, ambient air samples will be collected in an upwind location, away from obvious sources of VOCs, and over the same collection period as the indoor air samples. Additional canisters will be placed to test ambient air conditions at several points along the lateral extent of the contamination.

*Duplicate Air Samples.* Duplicate air samples will be collected at the rate of at least one duplicate per 20 primary samples.

*Sample Analysis.* Air samples will be shipped to a laboratory certified for method TO-15 analysis and analyzed for carbon tetrachloride and chloroform by method TO-15, at a detection level at or below the allowable risk-based indoor air levels for each compound.

The CCC/USDA intends to offer radon sampling to the residents of homes potentially affected by carbon tetrachloride, to be conducted at the same time. The radon kits used, as approved for sampling in Hanover, Kansas (KDHE 2010), will be obtained from the county office. The kits (charcoal canisters or pouches) will be used as directed and will be left in place for 3-4 days, then returned (after exposure) to National Radon Program Services at Kansas State

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University (133 Ward Hall, Manhattan, KS 66506-2508). The results will be reported to the KDHE when available.

#### *Report Deliverable*

A report containing all of the data, all relevant quality assurance/quality control information, and an interpretation of the vapor intrusion risk will be submitted following completion of the fieldwork and analytical reviews.

#### *Schedule of Fieldwork*

After approval of this plan, the KDHE will have the opportunity to inform the community of the sampling plan. Argonne will make further contact, through its community relations staff, to coordinate the sampling effort with the aim of minimizing any disruption to the residents and the community.

The work is tentatively scheduled for mid March 2010. The KDHE will be informed as to the finalized dates when residences are available for testing, to allow the agency to arrange oversight and the retrieval of duplicate samples.

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TABLE 1 Contact information for the Morrill residences to be sampled.

No.	Name	Street Address	City, State, Zip	Telephone
<i>Residences Selected for Phase 1 Sampling</i>				
	David Frey	566 246 Hwy.	Morrill, KS 66515	785-285-1734
	Larry Allen	90 Roxanna Street	Morrill, KS 66515	None
	Gruber, Charles	104 Roxanna Street	Morrill, KS 66515-9702	785-459-2231
	Wetzel, Jim	105 Roxanna Street	Morrill, KS 66515	None
	Kellenberger, Art	104 Roxanna Street	Morrill, KS 66515-9702	785-285-0399
	Plooger, Miles	106 Roxanna Street	Morrill, KS 66515-9702	785-459-2543
	The Ayore Church, Casey McNerney, pastor	107 Roxanna Street	Morrill, KS 66515	785-459-2445
	Gruber, Todd and Jana	108 Roxanna Street	Morrill, KS 66515-9702	785-459-2454
	Sailors, William and Linda	202 Roxanna Street	Morrill, KS 66515-9465	785-459-2422
	Carver, Eldon	203 Roxanna Street	Morrill, KS 66515	785-459-2408
	Rahe Welding and Repairs (Bill Rahe)	96 Virginia Street	Morrill, KS 66515-9714	785-459-2525
	Minard, Shane	102 Virginia Street	Morrill, KS 66515-9713	785-459-2245
	Frye, Fred and Sherry	106 Virginia Street	Morrill, KS 66515	785-459-2823
<i>Residences to be Considered for Phase 2 Sampling, on the Basis of Phase 1 Results</i>				
	Anderson, Daniel	204 Roxanna Street	Morrill, KS 66515-9465	785-991-1618
	Information pending <sup>a</sup>	205 Roxanna Street	Morrill, KS 66515	None
	Edwards, Aurora	206 Roxanna Street	Morrill, KS 66515-9484	785-459-2815
	Manning, David and Ruth	207 Roxanna Street	Morrill, KS 66515-9465	785-459-2827
	McNerney, Casey and Karen	302 Roxanna Street	Morrill, KS 66515-9724	785-288-8255
	Backer, Mark and Janice	303 Roxanna Street	Morrill, KS 66515-9707	785-459-2840
	Grimm, Randy	304 Roxanna Street	Morrill, KS 66515	785-459-2445
	Stover, Larry and Judy	200 Virginia Street	Morrill, KS 66515	785-459-2868
	Babcock, Lyle	202 Virginia Street	Morrill, KS 66515	785-548-5320
	Information pending <sup>b</sup>	303 Virginia Street	Morrill, KS 66515	None
	Rilinger, Lawrence and Debbie	106 Walnut Street	Morrill, KS 66515-9703	785-459-2417
	Sperline, Shani	202 Walnut Street	Morrill, KS 66515-9721	785-285-1800

<sup>a</sup> Unable to contact; neighbors did not have name or telephone number for resident(s).

<sup>b</sup> Owners live in Baltimore, Maryland. Larry Stover has a key.



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TABLE 2 Analytical results for volatile organic compounds in groundwater samples collected at Morrill, 2008-2009.

Location	Screen Interval (ft BGL)	Sample Date	Depth to Water (ft TOC)	Depth of well (ft TOC)	Volume Purged (L)	Concentration (µg/L)		Comment
						Carbon Tetrachloride	Chloroform	
MW1S	11-51	4/14/08	16.0	54	5.5	ND <sup>b</sup>	ND <sup>b</sup>	April monitoring Confirmation Low flow Full purge Low flow 3 well volumes
		4/22/08	16.0	54	6.3	0.3 J <sup>a</sup>	ND	
		10/20/08	26.0	54	6.0	0.2 J	ND	
		10/21/08	-	-	-	0.7 J	ND	
		4/24/09	24.0	54	5.0	35	1.8	
		9/3/09	19.0	54	8.0	ND	ND	
9/4/09	19.3	51.2	244	34	1.7			
MW1D	63-88	4/14/08	29.5	89	6.0	ND	ND	
		10/20/08	30.4	89	7.0	ND	ND	
		4/24/09	31.0	89	7.0	ND	ND	
		9/3/09	27.1	89	6.5	ND	ND	
		4/15/08	23.6	53.4	2.2	ND	ND	
MW2S	13-53	10/21/08	33.7	53.5	5.0	ND	ND	Low flow Full purge
		10/21/08	-	-	-	ND	0.6 J	
		4/23/09	33.2	53.5	6.5	ND	ND	
		9/3/09	29.4	53.5	5.4	ND	ND	
		4/14/08	17.0	47.8	3.3	8.2	0.4 J	
MW3S	18-48	4/22/08	15.8	47.8	6.5	0.7 J	ND	April monitoring Confirmation Low flow Full purge Low flow Three well volumes
		10/21/08	27.0	47.8	4.2	55	1.4	
		10/21/08	-	-	-	63	1.6	
		4/23/09	26.7	47.8	5.0	29	1.4	
		9/3/09	22.4	47.8	5.5	30	1.1	
		9/4/09	22.6	47.8	190	28	0.9 J	
MW4S	17-47	4/14/08	26.3	47.85	2.5	ND	ND	
		10/20/08	36.7	47.8	30	ND	ND	
		4/23/09	41.5	47.8	5.0	ND	ND	
		9/4/09	31.6	47.8	6.0	ND	ND	

Plan for Indoor Air and Ambient Air Sampling at Morrill, Kansas  
March 11, 2010

TABLE 2 (cont.)

Location	Screen Interval (ft BGL)	Sample Date	Depth to Water (ft TOC)	Depth of well (ft TOC)	Volume Purged (L)	Concentration (µg/L)			Comment
						Carbon Tetrachloride	Chloroform		
MW5S	15-55	4/14/08	11.2	54.6	6.0	ND	ND	ND	April monitoring Confirmation
		4/23/08	11.3	54.6	6.5	ND	ND	ND	
		10/21/08	22.5	54.6	7.0	1.7	ND	ND	
		4/24/09	22.1	54.6	5.5	ND	ND	ND	
		9/3/09	17.6	54.6	5.5	ND	ND	ND	
MW6S	10-25	4/15/08	5.2	26.9	2.5	ND	ND	ND	
		10/20/08	5.7	26.9	5.0	ND	ND	ND	
		4/24/09	6.2	26.9	12	ND	ND	ND	
		9/4/09	5.9	26.9	5.4	ND	ND	ND	
MW7S	20-45	4/14/08	7.7	47	1.82	10	0.3 J	0.3 J	
		4/23/08	7.8	47	11	8.3	0.2 J	0.2 J	
		10/20/08	17.2	47	6.3	7.9	ND	ND	
		4/23/09	16.7	47	7.0	9.5	ND	ND	
		9/3/09	13.8	47	9.0	8.0	ND	ND	
MW8S	10-25	4/15/08	0.7	26.8	5.5	1.1	ND	ND	
		10/20/08	3.6	26.8	8.0	1.3	ND	ND	
		4/23/09	2.3	26.8	6.0	ND	ND	ND	
		9/3/09	2.9	26.8	8.5	1.9	ND	ND	
MW9S	38.83-53.83	4/14/08	16.6	58.63	2.3	0.8 J	ND	ND	
		10/20/08	21.5	58.5	11	1.1	ND	ND	
		4/23/09	21.9	58.5	5.5	1.0	ND	ND	
		9/4/09	20.0	58.5	5.0	1.4	ND	ND	
MW10S	30-45	4/14/08	9.8	49.7	1.9	ND	ND	ND	
		10/20/08	13.7	49.7	5.4	ND	ND	ND	
		4/23/09	13.6	45	7.5	ND	ND	ND	
		9/3/09	12.0	49.7	7.5	ND	ND	ND	

Plan for Indoor Air and Ambient Air Sampling at Morrill, Kansas  
March 11, 2010

9

TABLE 2 (cont.)

Location	Screen Interval (ft BGL)	Sample Date	Depth to Water (ft TOC)	Depth of well (ft TOC)	Volume Purged (L)	Concentration (µg/L)			Comment
						Carbon Tetrachloride	Chloroform		
MW11S	53-68	4/15/08	29.9	72.7	5.5	35	0.8 J		April monitoring
		4/22/08	30.2	72.7	7.2	42	0.9 J		Confirmation
		10/20/08	37.1	72.7	9.0	42	0.9 J		Low flow
		10/21/08	-	-	-	45	0.9 J		Full purge
		4/23/09	38.1	72.7	5.0	46	1.0		
		9/3/09	34.7	72.7	7.5	39	0.9 J		Low flow
		9/4/09	35.0	72.7	72	41	0.9 J		Three well volumes
Isch	-	4/15/08	-	-	Pump	0.4 J	ND		
		4/22/08	-	-	Pump	ND	ND		
		10/21/08	-	-	Pump	ND	ND		
		4/22/09	-	-	Pump	ND	ND		
		9/2/09	-	-	Pump	ND	ND		
Rillinger	-	4/15/08	-	-	Pump	9.9	0.4 J		
		10/21/08	-	-	Pump	0.9 J	ND		
		4/22/09	-	-	Pump	1.2	ND		
		9/2/09	-	-	Pump	1.0	ND		
Stone	43 <sup>f</sup>	4/15/08	-	38.9	-	0.9 J	ND		
		10/21/08	-	-	19	3.0	ND		
		4/23/09	-	-	19	1.1	ND		
		9/2/09	-	-	19	0.9 J	ND		

<sup>a</sup> Qualifier J indicates an estimated concentration below the method quantitation limit of 1.0 µg/L.

<sup>b</sup> ND, not detected at instrument detection limit of 0.1 µg/L.

<sup>c</sup> Total depth.

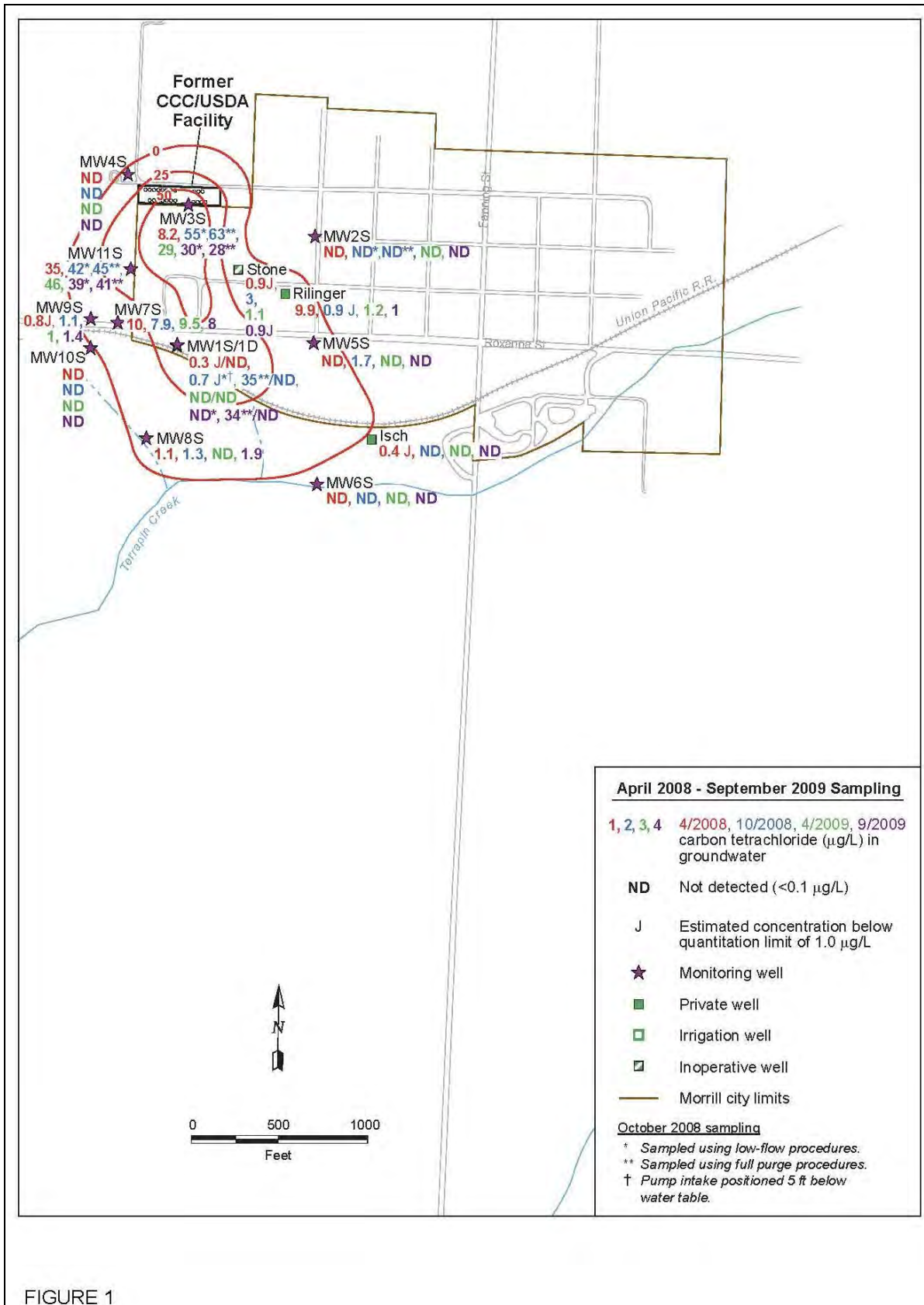


FIGURE 1



FIGURE 2



FIGURE 3

**Appendix C:**

**Results from AGEM Laboratory for Dual Analyses of Samples  
Collected at Morrill in 2010 and for Quality Control Samples**

TABLE C.1 Analytical results from the AGEM Laboratory for quality control samples collected to monitor sample collection and handling activities at Morrill in 2010.

Sample Date	Sample	Type	Concentration (µg/L)		
			Carbon Tetrachloride	Chloroform	Methylene Chloride
4/6/10	MRQCIR-W-30000	Equipment rinsate	ND <sup>a</sup>	ND	ND
4/6/10	MRQCTB-W-30003	Trip blank	ND	ND	ND
4/7/10	MRQCIR-W-30001	Equipment rinsate	ND	ND	ND
4/7/10	MRQCIR-W-30002	Equipment rinsate	ND	ND	ND
4/7/10	MRQCTB-W-30004	Trip blank	ND	ND	ND
9/22/10	MRQCIR-W-30028	Equipment rinsate	ND	ND	ND
9/22/10	MRQCIR-W-30029	Equipment rinsate	ND	ND	ND
9/23/10	MRDIH2O-W-30031	Field blank	ND	ND	ND
9/23/10	MRQCIR-W-30030	Equipment rinsate	ND	ND	ND
9/23/10	MRQCTB-W-30032	Trip blank	ND	ND	ND

<sup>a</sup> ND, contaminant not detected at an instrument detection limit of 0.1 µg/L.



TABLE C.2 Analytical results from the AGEM Laboratory for dual analyses of samples collected at Morrill in 2010.

Sample Date	Location	Sample	Analysis Type	Sample Medium	Concentration (µg/kg in soil; µg/L in water)		
					Carbon Tetrachloride	Chloroform	Methylene Chloride
4/6/10	SMB	MRSMB-S-29978	Primary sample	Soil	ND <sup>a</sup>	ND	ND
4/6/10	SMB	MRSMB-S-29978DUP	Duplicate analysis	Soil	ND	ND	ND
4/6/10	MW3S	MRMW3S-W-29985	Primary sample	Water	3.5	0.2 J <sup>b</sup>	ND
4/6/10	MW3S	MRMW3S-W-29985DUP	Duplicate analysis	Water	3.1	ND	ND
4/6/10	MW9S	MRMW9S-W-29991	Primary sample	Water	1.9	ND	ND
4/6/10	MW9S	MRMW9SDUP-W-29998	Replicate sample	Water	1.8	ND	ND
4/7/10	MW1S	MRMW1SB-W-29979	Primary sample	Water	ND	ND	ND
4/7/10	MW1S	MRMW1SB-W-29979DUP	Duplicate analysis	Water	ND	ND	ND
9/22/10	MW4S	MRMW4S-W-30014	Primary sample	Water	ND	ND	ND
9/22/10	MW4S	MRMW4SDUP-W-30027	Replicate sample	Water	ND	ND	ND
9/22/10	MW8S	MRMW8S-W-30018	Primary sample	Water	1.6	ND	ND
9/22/10	MW8S	MRMW8S-W-30018DUP	Duplicate analysis	Water	1.6	ND	ND
9/22/10	MW8S	MRMW8SDUP-W-30026	Replicate sample	Water	1.7	ND	ND
9/22/10	SMB	MRSMB-S-30009	Primary sample	Soil	ND	ND	ND
9/22/10	SMB	MRSMB-S-30009DUP	Duplicate analysis	Soil	ND	ND	ND

<sup>a</sup> ND, contaminant not detected at an instrument detection limit of 0.1 µg/L for water analyses or 1.0 µg/kg for soil analyses.

<sup>b</sup> Qualifier J indicates an estimated concentration below the purge-and-trap method quantitation limit of 1.0 µg/L.

TABLE C.3 Analytical results from TestAmerica and the AGEM Laboratory for groundwater samples collected at Morrill in 2010 and submitted for verification analysis.

Sample Date	Sample	Concentration (µg/L)			
		TestAmerica		AGEM Laboratory	
		Carbon Tetrachloride	Chloroform	Carbon Tetrachloride	Chloroform
4/7/10	MRMW4S-W-29986	ND <sup>a</sup>	ND	ND	ND
4/7/10	MRMW7S-W-29989	13	0.52	15	0.4 J <sup>b</sup>
4/7/10	MRMW10S-W-29992	ND	0.34 J	ND	ND
4/7/10	MRMW1SB-W-29979	ND	ND	ND	ND
4/7/10	MRMW1SM-W-29980	ND	ND	ND	ND
4/7/10	MRMW1ST-W-29981	ND	ND	ND	ND
4/7/10	MRMW1SX-W-29982	18	1.1	21	1.2
4/7/10	MRQCTB-W-30004	ND	ND	ND	ND
9/23/10	MRMW3S-W-30013	30	1.2	47	1.6
9/23/10	MRMW6S-W-30016	ND	ND	ND	ND
9/23/10	MRMW7S-W-30017	4.7	ND	6.6	ND
9/23/10	MRMW11S-W-30021	19	0.85	28	1.0
9/23/10	MRISCH-W-30022	ND	ND	ND	ND
9/23/10	MRQCTB-W-30032	ND	ND	ND	ND

<sup>a</sup> ND, contaminant not detected at an instrument detection limit of 0.1 µg/L.

<sup>b</sup> Qualifier J indicates an estimated concentration below the method quantitation limit of 0.5 µg/L in analyses at TestAmerica or 1.0 µg/L in analyses at the AGEM Laboratory.

**Supplement 1:**

**Waste Characterization Data**

October 14, 2010

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

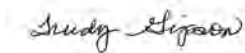
RE: Project: Kansas Waste Water  
Pace Project No.: 6086606

Dear Mr. Kamler:

Enclosed are the analytical results for sample(s) received by the laboratory on October 01, 2010. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated 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**

Page 1 of 19

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## CERTIFICATIONS

Project: Kansas Waste Water

Pace Project No.: 6086606

### **Kansas Certification IDs**

9608 Loiret Boulevard, Lenexa, KS 66219

A2LA Certification #: 2456.01

Arkansas Certification #: 05-008-0

Illinois Certification #: 001191

Iowa Certification #: 118

Kansas/NELAP Certification #: E-10116

Louisiana Certification #: 03055

Nevada Certification #: KS000212008A

Oklahoma Certification #: 9205/9935

Texas Certification #: T104704407-08-TX

Utah Certification #: 9135995665

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: Kansas Waste Water

Pace Project No.: 6086606

Lab ID	Sample ID	Matrix	Date Collected	Date Received
6086606001	BAPURGE-W-930101	Water	09/30/10 09:00	10/01/10 09:15
6086606002	CNPURGE-W-930102	Water	09/30/10 10:00	10/01/10 09:15
6086606003	EVPURGE-W-930103	Water	09/30/10 11:32	10/01/10 09:15
6086606004	MRPURGE-W-930104	Water	09/30/10 13:42	10/01/10 09:15

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Kansas Waste Water

Pace Project No.: 6086606

Lab ID	Sample ID	Method	Analysts	Analytes Reported
6086606001	BAPURGE-W-930101	EPA 504.1	NAW	1
		EPA 5030B/8260	HMW	70
		EPA 300.0	RAB	1
6086606002	CNPURGE-W-930102	EPA 504.1	NAW	1
		EPA 5030B/8260	HMW	70
		EPA 300.0	RAB	1
6086606003	EVPURGE-W-930103	EPA 504.1	NAW	1
		EPA 5030B/8260	HMW	70
		EPA 300.0	RAB	1
6086606004	MRPURGE-W-930104	EPA 504.1	NAW	1
		EPA 5030B/8260	HMW	70
		EPA 300.0	RAB	1

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Kansas Waste Water

Pace Project No.: 6086606

Sample: BAPURGE-W-930101	Lab ID: 6086606001	Collected: 09/30/10 09:00	Received: 10/01/10 09:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>504 GCS EDB and DBCP</b>		Analytical Method: EPA 504.1 Preparation Method: EPA 504.1						
1,2-Dibromoethane (EDB)	ND ug/L		0.029	1	10/07/10 00:00	10/07/10 21:23	106-93-4	
<b>8260 MSV</b>		Analytical Method: EPA 5030B/8260						
Acetone	<b>293</b> ug/L		10.0	1		10/03/10 12:46	67-64-1	
Benzene	ND ug/L		1.0	1		10/03/10 12:46	71-43-2	
Bromobenzene	ND ug/L		1.0	1		10/03/10 12:46	108-86-1	
Bromochloromethane	ND ug/L		1.0	1		10/03/10 12:46	74-97-5	
Bromodichloromethane	ND ug/L		1.0	1		10/03/10 12:46	75-27-4	
Bromoform	ND ug/L		1.0	1		10/03/10 12:46	75-25-2	
Bromomethane	ND ug/L		1.0	1		10/03/10 12:46	74-83-9	
2-Butanone (MEK)	ND ug/L		10.0	1		10/03/10 12:46	78-93-3	
n-Butylbenzene	ND ug/L		1.0	1		10/03/10 12:46	104-51-8	
sec-Butylbenzene	ND ug/L		1.0	1		10/03/10 12:46	135-98-8	
tert-Butylbenzene	ND ug/L		1.0	1		10/03/10 12:46	98-06-6	
Carbon disulfide	ND ug/L		5.0	1		10/03/10 12:46	75-15-0	L3
Carbon tetrachloride	ND ug/L		1.0	1		10/03/10 12:46	56-23-5	
Chlorobenzene	ND ug/L		1.0	1		10/03/10 12:46	108-90-7	L3
Chloroethane	ND ug/L		1.0	1		10/03/10 12:46	75-00-3	
Chloroform	ND ug/L		1.0	1		10/03/10 12:46	67-66-3	
Chloromethane	ND ug/L		1.0	1		10/03/10 12:46	74-87-3	
2-Chlorotoluene	ND ug/L		1.0	1		10/03/10 12:46	95-49-8	
4-Chlorotoluene	ND ug/L		1.0	1		10/03/10 12:46	106-43-4	
1,2-Dibromo-3-chloropropane	ND ug/L		2.5	1		10/03/10 12:46	96-12-8	
Dibromochloromethane	ND ug/L		1.0	1		10/03/10 12:46	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/L		1.0	1		10/03/10 12:46	106-93-4	
Dibromomethane	ND ug/L		1.0	1		10/03/10 12:46	74-95-3	
1,2-Dichlorobenzene	ND ug/L		1.0	1		10/03/10 12:46	95-50-1	
1,3-Dichlorobenzene	ND ug/L		1.0	1		10/03/10 12:46	541-73-1	
1,4-Dichlorobenzene	ND ug/L		1.0	1		10/03/10 12:46	106-46-7	
Dichlorodifluoromethane	ND ug/L		1.0	1		10/03/10 12:46	75-71-8	
1,1-Dichloroethane	ND ug/L		1.0	1		10/03/10 12:46	75-34-3	
1,2-Dichloroethane	ND ug/L		1.0	1		10/03/10 12:46	107-06-2	
1,2-Dichloroethene (Total)	ND ug/L		1.0	1		10/03/10 12:46	540-59-0	
1,1-Dichloroethene	ND ug/L		1.0	1		10/03/10 12:46	75-35-4	
cis-1,2-Dichloroethene	ND ug/L		1.0	1		10/03/10 12:46	156-59-2	
trans-1,2-Dichloroethene	ND ug/L		1.0	1		10/03/10 12:46	156-60-5	
1,2-Dichloropropane	ND ug/L		1.0	1		10/03/10 12:46	78-87-5	
1,3-Dichloropropane	ND ug/L		1.0	1		10/03/10 12:46	142-28-9	
2,2-Dichloropropane	ND ug/L		1.0	1		10/03/10 12:46	594-20-7	
1,1-Dichloropropene	ND ug/L		1.0	1		10/03/10 12:46	563-58-6	
cis-1,3-Dichloropropene	ND ug/L		1.0	1		10/03/10 12:46	10061-01-5	
trans-1,3-Dichloropropene	ND ug/L		1.0	1		10/03/10 12:46	10061-02-6	L3
Ethylbenzene	ND ug/L		1.0	1		10/03/10 12:46	100-41-4	
Hexachloro-1,3-butadiene	ND ug/L		1.0	1		10/03/10 12:46	87-68-3	
2-Hexanone	ND ug/L		10.0	1		10/03/10 12:46	591-78-6	
Isopropylbenzene (Cumene)	ND ug/L		1.0	1		10/03/10 12:46	98-82-8	L3
p-Isopropyltoluene	ND ug/L		1.0	1		10/03/10 12:46	99-87-6	

Date: 10/14/2010 11:06 AM

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Kansas Waste Water

Pace Project No.: 6086606

**Sample: BAPURGE-W-930101**      **Lab ID: 6086606001**      Collected: 09/30/10 09:00      Received: 10/01/10 09:15      Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>		Analytical Method: EPA 5030B/8260						
Methylene chloride	ND	ug/L	1.0	1		10/03/10 12:46	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		10/03/10 12:46	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		10/03/10 12:46	1634-04-4	
Naphthalene	ND	ug/L	10.0	1		10/03/10 12:46	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		10/03/10 12:46	103-65-1	
Styrene	ND	ug/L	1.0	1		10/03/10 12:46	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		10/03/10 12:46	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		10/03/10 12:46	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		10/03/10 12:46	127-18-4	
Toluene	ND	ug/L	1.0	1		10/03/10 12:46	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		10/03/10 12:46	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		10/03/10 12:46	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		10/03/10 12:46	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		10/03/10 12:46	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		10/03/10 12:46	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		10/03/10 12:46	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	2.5	1		10/03/10 12:46	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		10/03/10 12:46	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		10/03/10 12:46	108-67-8	
Vinyl chloride	ND	ug/L	1.0	1		10/03/10 12:46	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		10/03/10 12:46	1330-20-7	
4-Bromofluorobenzene (S)	93	%	87-113	1		10/03/10 12:46	460-00-4	
Dibromofluoromethane (S)	103	%	86-112	1		10/03/10 12:46	1868-53-7	
1,2-Dichloroethane-d4 (S)	98	%	82-119	1		10/03/10 12:46	17060-07-0	
Toluene-d8 (S)	102	%	90-110	1		10/03/10 12:46	2037-26-5	
Preservation pH	<b>7.0</b>		0.10	1		10/03/10 12:46		
<b>300.0 IC Anions</b>		Analytical Method: EPA 300.0						
Nitrate as N	<b>2.7</b>	mg/L	0.10	1		10/01/10 18:59	14797-55-8	

## ANALYTICAL RESULTS

Project: Kansas Waste Water

Pace Project No.: 6086606

Sample: CNPURGE-W-930102	Lab ID: 6086606002	Collected: 09/30/10 10:00	Received: 10/01/10 09:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>504 GCS EDB and DBCP</b>		Analytical Method: EPA 504.1 Preparation Method: EPA 504.1						
1,2-Dibromoethane (EDB)	ND ug/L		0.029	1	10/07/10 00:00	10/07/10 21:34	106-93-4	
<b>8260 MSV</b>		Analytical Method: EPA 5030B/8260						
Acetone	<b>474</b> ug/L		10.0	1		10/03/10 13:01	67-64-1	
Benzene	ND ug/L		1.0	1		10/03/10 13:01	71-43-2	
Bromobenzene	ND ug/L		1.0	1		10/03/10 13:01	108-86-1	
Bromochloromethane	ND ug/L		1.0	1		10/03/10 13:01	74-97-5	
Bromodichloromethane	ND ug/L		1.0	1		10/03/10 13:01	75-27-4	
Bromoform	ND ug/L		1.0	1		10/03/10 13:01	75-25-2	
Bromomethane	ND ug/L		1.0	1		10/03/10 13:01	74-83-9	
2-Butanone (MEK)	ND ug/L		10.0	1		10/03/10 13:01	78-93-3	
n-Butylbenzene	ND ug/L		1.0	1		10/03/10 13:01	104-51-8	
sec-Butylbenzene	ND ug/L		1.0	1		10/03/10 13:01	135-98-8	
tert-Butylbenzene	ND ug/L		1.0	1		10/03/10 13:01	98-06-6	
Carbon disulfide	ND ug/L		5.0	1		10/03/10 13:01	75-15-0	L3
Carbon tetrachloride	ND ug/L		1.0	1		10/03/10 13:01	56-23-5	
Chlorobenzene	ND ug/L		1.0	1		10/03/10 13:01	108-90-7	L3
Chloroethane	ND ug/L		1.0	1		10/03/10 13:01	75-00-3	
Chloroform	ND ug/L		1.0	1		10/03/10 13:01	67-66-3	
Chloromethane	ND ug/L		1.0	1		10/03/10 13:01	74-87-3	
2-Chlorotoluene	ND ug/L		1.0	1		10/03/10 13:01	95-49-8	
4-Chlorotoluene	ND ug/L		1.0	1		10/03/10 13:01	106-43-4	
1,2-Dibromo-3-chloropropane	ND ug/L		2.5	1		10/03/10 13:01	96-12-8	
Dibromochloromethane	ND ug/L		1.0	1		10/03/10 13:01	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/L		1.0	1		10/03/10 13:01	106-93-4	
Dibromomethane	ND ug/L		1.0	1		10/03/10 13:01	74-95-3	
1,2-Dichlorobenzene	ND ug/L		1.0	1		10/03/10 13:01	95-50-1	
1,3-Dichlorobenzene	ND ug/L		1.0	1		10/03/10 13:01	541-73-1	
1,4-Dichlorobenzene	ND ug/L		1.0	1		10/03/10 13:01	106-46-7	
Dichlorodifluoromethane	ND ug/L		1.0	1		10/03/10 13:01	75-71-8	
1,1-Dichloroethane	ND ug/L		1.0	1		10/03/10 13:01	75-34-3	
1,2-Dichloroethane	ND ug/L		1.0	1		10/03/10 13:01	107-06-2	
1,2-Dichloroethene (Total)	ND ug/L		1.0	1		10/03/10 13:01	540-59-0	
1,1-Dichloroethene	ND ug/L		1.0	1		10/03/10 13:01	75-35-4	
cis-1,2-Dichloroethene	ND ug/L		1.0	1		10/03/10 13:01	156-59-2	
trans-1,2-Dichloroethene	ND ug/L		1.0	1		10/03/10 13:01	156-60-5	
1,2-Dichloropropane	ND ug/L		1.0	1		10/03/10 13:01	78-87-5	
1,3-Dichloropropane	ND ug/L		1.0	1		10/03/10 13:01	142-28-9	
2,2-Dichloropropane	ND ug/L		1.0	1		10/03/10 13:01	594-20-7	
1,1-Dichloropropene	ND ug/L		1.0	1		10/03/10 13:01	563-58-6	
cis-1,3-Dichloropropene	ND ug/L		1.0	1		10/03/10 13:01	10061-01-5	
trans-1,3-Dichloropropene	ND ug/L		1.0	1		10/03/10 13:01	10061-02-6	L3
Ethylbenzene	ND ug/L		1.0	1		10/03/10 13:01	100-41-4	
Hexachloro-1,3-butadiene	ND ug/L		1.0	1		10/03/10 13:01	87-68-3	
2-Hexanone	ND ug/L		10.0	1		10/03/10 13:01	591-78-6	
Isopropylbenzene (Cumene)	ND ug/L		1.0	1		10/03/10 13:01	98-82-8	L3
p-Isopropyltoluene	ND ug/L		1.0	1		10/03/10 13:01	99-87-6	

Date: 10/14/2010 11:06 AM

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## ANALYTICAL RESULTS

Project: Kansas Waste Water

Pace Project No.: 6086606

<b>Sample:</b> CNPURGE-W-930102	<b>Lab ID:</b> 6086606002	Collected: 09/30/10 10:00	Received: 10/01/10 09:15	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		10/03/10 13:01	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/L		10.0	1		10/03/10 13:01	108-10-1	
Methyl-tert-butyl ether	ND ug/L		1.0	1		10/03/10 13:01	1634-04-4	
Naphthalene	ND ug/L		10.0	1		10/03/10 13:01	91-20-3	
n-Propylbenzene	ND ug/L		1.0	1		10/03/10 13:01	103-65-1	
Styrene	ND ug/L		1.0	1		10/03/10 13:01	100-42-5	
1,1,1,2-Tetrachloroethane	ND ug/L		1.0	1		10/03/10 13:01	630-20-6	
1,1,2,2-Tetrachloroethane	ND ug/L		1.0	1		10/03/10 13:01	79-34-5	
Tetrachloroethene	ND ug/L		1.0	1		10/03/10 13:01	127-18-4	
Toluene	ND ug/L		1.0	1		10/03/10 13:01	108-88-3	
1,2,3-Trichlorobenzene	ND ug/L		1.0	1		10/03/10 13:01	87-61-6	
1,2,4-Trichlorobenzene	ND ug/L		1.0	1		10/03/10 13:01	120-82-1	
1,1,1-Trichloroethane	ND ug/L		1.0	1		10/03/10 13:01	71-55-6	
1,1,2-Trichloroethane	ND ug/L		1.0	1		10/03/10 13:01	79-00-5	
Trichloroethene	ND ug/L		1.0	1		10/03/10 13:01	79-01-6	
Trichlorofluoromethane	ND ug/L		1.0	1		10/03/10 13:01	75-69-4	
1,2,3-Trichloropropane	ND ug/L		2.5	1		10/03/10 13:01	96-18-4	
1,2,4-Trimethylbenzene	ND ug/L		1.0	1		10/03/10 13:01	95-63-6	
1,3,5-Trimethylbenzene	ND ug/L		1.0	1		10/03/10 13:01	108-67-8	
Vinyl chloride	ND ug/L		1.0	1		10/03/10 13:01	75-01-4	
Xylene (Total)	ND ug/L		3.0	1		10/03/10 13:01	1330-20-7	
4-Bromofluorobenzene (S)	96 %		87-113	1		10/03/10 13:01	460-00-4	
Dibromofluoromethane (S)	105 %		86-112	1		10/03/10 13:01	1868-53-7	
1,2-Dichloroethane-d4 (S)	100 %		82-119	1		10/03/10 13:01	17060-07-0	
Toluene-d8 (S)	101 %		90-110	1		10/03/10 13:01	2037-26-5	
Preservation pH	<b>7.0</b>		0.10	1		10/03/10 13:01		

**300.0 IC Anions**

Analytical Method: EPA 300.0

Nitrate as N	1.7 mg/L		0.10	1		10/01/10 19:15	14797-55-8	
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## ANALYTICAL RESULTS

Project: Kansas Waste Water

Pace Project No.: 6086606

Sample: <b>EVPURGE-W-930103</b>	Lab ID: <b>6086606003</b>	Collected: 09/30/10 11:32	Received: 10/01/10 09:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>504 GCS EDB and DBCP</b>		Analytical Method: EPA 504.1 Preparation Method: EPA 504.1						
1,2-Dibromoethane (EDB)	ND ug/L		0.029	1	10/07/10 00:00	10/07/10 21:44	106-93-4	
<b>8260 MSV</b>		Analytical Method: EPA 5030B/8260						
Acetone	<b>787</b> ug/L		10.0	1		10/03/10 13:16	67-64-1	E,P2
Benzene	ND ug/L		1.0	1		10/03/10 13:16	71-43-2	
Bromobenzene	ND ug/L		1.0	1		10/03/10 13:16	108-86-1	
Bromochloromethane	ND ug/L		1.0	1		10/03/10 13:16	74-97-5	
Bromodichloromethane	ND ug/L		1.0	1		10/03/10 13:16	75-27-4	
Bromoform	ND ug/L		1.0	1		10/03/10 13:16	75-25-2	
Bromomethane	ND ug/L		1.0	1		10/03/10 13:16	74-83-9	
2-Butanone (MEK)	ND ug/L		10.0	1		10/03/10 13:16	78-93-3	
n-Butylbenzene	ND ug/L		1.0	1		10/03/10 13:16	104-51-8	
sec-Butylbenzene	ND ug/L		1.0	1		10/03/10 13:16	135-98-8	
tert-Butylbenzene	ND ug/L		1.0	1		10/03/10 13:16	98-06-6	
Carbon disulfide	ND ug/L		5.0	1		10/03/10 13:16	75-15-0	L3
Carbon tetrachloride	ND ug/L		1.0	1		10/03/10 13:16	56-23-5	
Chlorobenzene	ND ug/L		1.0	1		10/03/10 13:16	108-90-7	L3
Chloroethane	ND ug/L		1.0	1		10/03/10 13:16	75-00-3	
Chloroform	ND ug/L		1.0	1		10/03/10 13:16	67-66-3	
Chloromethane	ND ug/L		1.0	1		10/03/10 13:16	74-87-3	
2-Chlorotoluene	ND ug/L		1.0	1		10/03/10 13:16	95-49-8	
4-Chlorotoluene	ND ug/L		1.0	1		10/03/10 13:16	106-43-4	
1,2-Dibromo-3-chloropropane	ND ug/L		2.5	1		10/03/10 13:16	96-12-8	
Dibromochloromethane	ND ug/L		1.0	1		10/03/10 13:16	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/L		1.0	1		10/03/10 13:16	106-93-4	
Dibromomethane	ND ug/L		1.0	1		10/03/10 13:16	74-95-3	
1,2-Dichlorobenzene	ND ug/L		1.0	1		10/03/10 13:16	95-50-1	
1,3-Dichlorobenzene	ND ug/L		1.0	1		10/03/10 13:16	541-73-1	
1,4-Dichlorobenzene	ND ug/L		1.0	1		10/03/10 13:16	106-46-7	
Dichlorodifluoromethane	ND ug/L		1.0	1		10/03/10 13:16	75-71-8	
1,1-Dichloroethane	ND ug/L		1.0	1		10/03/10 13:16	75-34-3	
1,2-Dichloroethane	ND ug/L		1.0	1		10/03/10 13:16	107-06-2	
1,2-Dichloroethene (Total)	ND ug/L		1.0	1		10/03/10 13:16	540-59-0	
1,1-Dichloroethene	ND ug/L		1.0	1		10/03/10 13:16	75-35-4	
cis-1,2-Dichloroethene	ND ug/L		1.0	1		10/03/10 13:16	156-59-2	
trans-1,2-Dichloroethene	ND ug/L		1.0	1		10/03/10 13:16	156-60-5	
1,2-Dichloropropane	ND ug/L		1.0	1		10/03/10 13:16	78-87-5	
1,3-Dichloropropane	ND ug/L		1.0	1		10/03/10 13:16	142-28-9	
2,2-Dichloropropane	ND ug/L		1.0	1		10/03/10 13:16	594-20-7	
1,1-Dichloropropene	ND ug/L		1.0	1		10/03/10 13:16	563-58-6	
cis-1,3-Dichloropropene	ND ug/L		1.0	1		10/03/10 13:16	10061-01-5	
trans-1,3-Dichloropropene	ND ug/L		1.0	1		10/03/10 13:16	10061-02-6	L3
Ethylbenzene	ND ug/L		1.0	1		10/03/10 13:16	100-41-4	
Hexachloro-1,3-butadiene	ND ug/L		1.0	1		10/03/10 13:16	87-68-3	
2-Hexanone	ND ug/L		10.0	1		10/03/10 13:16	591-78-6	
Isopropylbenzene (Cumene)	ND ug/L		1.0	1		10/03/10 13:16	98-82-8	L3
p-Isopropyltoluene	ND ug/L		1.0	1		10/03/10 13:16	99-87-6	

Date: 10/14/2010 11:06 AM

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## ANALYTICAL RESULTS

Project: Kansas Waste Water

Pace Project No.: 6086606

**Sample: EVPURGE-W-930103**      **Lab ID: 6086606003**      Collected: 09/30/10 11:32      Received: 10/01/10 09:15      Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>		Analytical Method: EPA 5030B/8260						
Methylene chloride	ND	ug/L	1.0	1		10/03/10 13:16	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		10/03/10 13:16	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		10/03/10 13:16	1634-04-4	
Naphthalene	ND	ug/L	10.0	1		10/03/10 13:16	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		10/03/10 13:16	103-65-1	
Styrene	ND	ug/L	1.0	1		10/03/10 13:16	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		10/03/10 13:16	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		10/03/10 13:16	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		10/03/10 13:16	127-18-4	
Toluene	ND	ug/L	1.0	1		10/03/10 13:16	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		10/03/10 13:16	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		10/03/10 13:16	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		10/03/10 13:16	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		10/03/10 13:16	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		10/03/10 13:16	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		10/03/10 13:16	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	2.5	1		10/03/10 13:16	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		10/03/10 13:16	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		10/03/10 13:16	108-67-8	
Vinyl chloride	ND	ug/L	1.0	1		10/03/10 13:16	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		10/03/10 13:16	1330-20-7	
4-Bromofluorobenzene (S)	96	%	87-113	1		10/03/10 13:16	460-00-4	
Dibromofluoromethane (S)	98	%	86-112	1		10/03/10 13:16	1868-53-7	
1,2-Dichloroethane-d4 (S)	92	%	82-119	1		10/03/10 13:16	17060-07-0	
Toluene-d8 (S)	100	%	90-110	1		10/03/10 13:16	2037-26-5	
Preservation pH	<b>7.0</b>		0.10	1		10/03/10 13:16		
<b>300.0 IC Anions</b>		Analytical Method: EPA 300.0						
Nitrate as N	<b>2.0</b>	mg/L	0.10	1		10/01/10 19:32	14797-55-8	

## ANALYTICAL RESULTS

Project: Kansas Waste Water

Pace Project No.: 6086606

Sample: MRPURGE-W-930104	Lab ID: 6086606004	Collected: 09/30/10 13:42	Received: 10/01/10 09:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>504 GCS EDB and DBCP</b>		Analytical Method: EPA 504.1 Preparation Method: EPA 504.1						
1,2-Dibromoethane (EDB)	ND ug/L		0.029	1	10/07/10 00:00	10/07/10 21:55	106-93-4	
<b>8260 MSV</b>		Analytical Method: EPA 5030B/8260						
Acetone	351 ug/L		10.0	1		10/03/10 13:31	67-64-1	
Benzene	ND ug/L		1.0	1		10/03/10 13:31	71-43-2	
Bromobenzene	ND ug/L		1.0	1		10/03/10 13:31	108-86-1	
Bromochloromethane	ND ug/L		1.0	1		10/03/10 13:31	74-97-5	
Bromodichloromethane	ND ug/L		1.0	1		10/03/10 13:31	75-27-4	
Bromoform	ND ug/L		1.0	1		10/03/10 13:31	75-25-2	
Bromomethane	ND ug/L		1.0	1		10/03/10 13:31	74-83-9	
2-Butanone (MEK)	ND ug/L		10.0	1		10/03/10 13:31	78-93-3	
n-Butylbenzene	ND ug/L		1.0	1		10/03/10 13:31	104-51-8	
sec-Butylbenzene	ND ug/L		1.0	1		10/03/10 13:31	135-98-8	
tert-Butylbenzene	ND ug/L		1.0	1		10/03/10 13:31	98-06-6	
Carbon disulfide	ND ug/L		5.0	1		10/03/10 13:31	75-15-0	L3
Carbon tetrachloride	ND ug/L		1.0	1		10/03/10 13:31	56-23-5	
Chlorobenzene	ND ug/L		1.0	1		10/03/10 13:31	108-90-7	L3
Chloroethane	ND ug/L		1.0	1		10/03/10 13:31	75-00-3	
Chloroform	ND ug/L		1.0	1		10/03/10 13:31	67-66-3	
Chloromethane	ND ug/L		1.0	1		10/03/10 13:31	74-87-3	
2-Chlorotoluene	ND ug/L		1.0	1		10/03/10 13:31	95-49-8	
4-Chlorotoluene	ND ug/L		1.0	1		10/03/10 13:31	106-43-4	
1,2-Dibromo-3-chloropropane	ND ug/L		2.5	1		10/03/10 13:31	96-12-8	
Dibromochloromethane	ND ug/L		1.0	1		10/03/10 13:31	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/L		1.0	1		10/03/10 13:31	106-93-4	
Dibromomethane	ND ug/L		1.0	1		10/03/10 13:31	74-95-3	
1,2-Dichlorobenzene	ND ug/L		1.0	1		10/03/10 13:31	95-50-1	
1,3-Dichlorobenzene	ND ug/L		1.0	1		10/03/10 13:31	541-73-1	
1,4-Dichlorobenzene	ND ug/L		1.0	1		10/03/10 13:31	106-46-7	
Dichlorodifluoromethane	ND ug/L		1.0	1		10/03/10 13:31	75-71-8	
1,1-Dichloroethane	ND ug/L		1.0	1		10/03/10 13:31	75-34-3	
1,2-Dichloroethane	ND ug/L		1.0	1		10/03/10 13:31	107-06-2	
1,2-Dichloroethene (Total)	ND ug/L		1.0	1		10/03/10 13:31	540-59-0	
1,1-Dichloroethene	ND ug/L		1.0	1		10/03/10 13:31	75-35-4	
cis-1,2-Dichloroethene	ND ug/L		1.0	1		10/03/10 13:31	156-59-2	
trans-1,2-Dichloroethene	ND ug/L		1.0	1		10/03/10 13:31	156-60-5	
1,2-Dichloropropane	ND ug/L		1.0	1		10/03/10 13:31	78-87-5	
1,3-Dichloropropane	ND ug/L		1.0	1		10/03/10 13:31	142-28-9	
2,2-Dichloropropane	ND ug/L		1.0	1		10/03/10 13:31	594-20-7	
1,1-Dichloropropene	ND ug/L		1.0	1		10/03/10 13:31	563-58-6	
cis-1,3-Dichloropropene	ND ug/L		1.0	1		10/03/10 13:31	10061-01-5	
trans-1,3-Dichloropropene	ND ug/L		1.0	1		10/03/10 13:31	10061-02-6	L3
Ethylbenzene	ND ug/L		1.0	1		10/03/10 13:31	100-41-4	
Hexachloro-1,3-butadiene	ND ug/L		1.0	1		10/03/10 13:31	87-68-3	
2-Hexanone	ND ug/L		10.0	1		10/03/10 13:31	591-78-6	
Isopropylbenzene (Cumene)	ND ug/L		1.0	1		10/03/10 13:31	98-82-8	L3
p-Isopropyltoluene	ND ug/L		1.0	1		10/03/10 13:31	99-87-6	

Date: 10/14/2010 11:06 AM

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Kansas Waste Water

Pace Project No.: 6086606

**Sample: MRPURGE-W-930104**      **Lab ID: 6086606004**      Collected: 09/30/10 13:42      Received: 10/01/10 09:15      Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>		Analytical Method: EPA 5030B/8260						
Methylene chloride	ND	ug/L	1.0	1		10/03/10 13:31	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		10/03/10 13:31	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		10/03/10 13:31	1634-04-4	
Naphthalene	ND	ug/L	10.0	1		10/03/10 13:31	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		10/03/10 13:31	103-65-1	
Styrene	ND	ug/L	1.0	1		10/03/10 13:31	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		10/03/10 13:31	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		10/03/10 13:31	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		10/03/10 13:31	127-18-4	
Toluene	ND	ug/L	1.0	1		10/03/10 13:31	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		10/03/10 13:31	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		10/03/10 13:31	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		10/03/10 13:31	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		10/03/10 13:31	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		10/03/10 13:31	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		10/03/10 13:31	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	2.5	1		10/03/10 13:31	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		10/03/10 13:31	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		10/03/10 13:31	108-67-8	
Vinyl chloride	ND	ug/L	1.0	1		10/03/10 13:31	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		10/03/10 13:31	1330-20-7	
4-Bromofluorobenzene (S)	95 %		87-113	1		10/03/10 13:31	460-00-4	
Dibromofluoromethane (S)	105 %		86-112	1		10/03/10 13:31	1868-53-7	
1,2-Dichloroethane-d4 (S)	98 %		82-119	1		10/03/10 13:31	17060-07-0	
Toluene-d8 (S)	103 %		90-110	1		10/03/10 13:31	2037-26-5	
Preservation pH	<b>7.0</b>		0.10	1		10/03/10 13:31		
<b>300.0 IC Anions</b>		Analytical Method: EPA 300.0						
Nitrate as N	<b>0.99</b>	mg/L	0.10	1		10/01/10 19:48	14797-55-8	

**QUALITY CONTROL DATA**

Project: Kansas Waste Water

Pace Project No.: 6086606

QC Batch: OEXT/25923 Analysis Method: EPA 504.1  
 QC Batch Method: EPA 504.1 Analysis Description: GCS 504 EDB DBCP  
 Associated Lab Samples: 6086606001, 6086606002, 6086606003, 6086606004

METHOD BLANK: 713551 Matrix: Water  
 Associated Lab Samples: 6086606001, 6086606002, 6086606003, 6086606004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.030	10/07/10 20:50	

LABORATORY CONTROL SAMPLE & LCSD: 713552 713553

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.25	0.29	0.28	114	112	70-130	2	20	



### QUALITY CONTROL DATA

Project: Kansas Waste Water

Pace Project No.: 6086606

QC Batch: MSV/32160 Analysis Method: EPA 5030B/8260  
 QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 7 day  
 Associated Lab Samples: 6086606001, 6086606002, 6086606003, 6086606004

METHOD BLANK: 711291 Matrix: Water  
 Associated Lab Samples: 6086606001, 6086606002, 6086606003, 6086606004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	10/03/10 11:44	
1,1,1-Trichloroethane	ug/L	ND	1.0	10/03/10 11:44	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	10/03/10 11:44	
1,1,2-Trichloroethane	ug/L	ND	1.0	10/03/10 11:44	
1,1-Dichloroethane	ug/L	ND	1.0	10/03/10 11:44	
1,1-Dichloroethene	ug/L	ND	1.0	10/03/10 11:44	
1,1-Dichloropropene	ug/L	ND	1.0	10/03/10 11:44	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	10/03/10 11:44	
1,2,3-Trichloropropane	ug/L	ND	2.5	10/03/10 11:44	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	10/03/10 11:44	
1,2,4-Trimethylbenzene	ug/L	ND	1.0	10/03/10 11:44	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.5	10/03/10 11:44	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	10/03/10 11:44	
1,2-Dichlorobenzene	ug/L	ND	1.0	10/03/10 11:44	
1,2-Dichloroethane	ug/L	ND	1.0	10/03/10 11:44	
1,2-Dichloroethene (Total)	ug/L	ND	1.0	10/03/10 11:44	
1,2-Dichloropropane	ug/L	ND	1.0	10/03/10 11:44	
1,3,5-Trimethylbenzene	ug/L	ND	1.0	10/03/10 11:44	
1,3-Dichlorobenzene	ug/L	ND	1.0	10/03/10 11:44	
1,3-Dichloropropane	ug/L	ND	1.0	10/03/10 11:44	
1,4-Dichlorobenzene	ug/L	ND	1.0	10/03/10 11:44	
2,2-Dichloropropane	ug/L	ND	1.0	10/03/10 11:44	
2-Butanone (MEK)	ug/L	ND	10.0	10/03/10 11:44	
2-Chlorotoluene	ug/L	ND	1.0	10/03/10 11:44	
2-Hexanone	ug/L	ND	10.0	10/03/10 11:44	
4-Chlorotoluene	ug/L	ND	1.0	10/03/10 11:44	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	10/03/10 11:44	
Acetone	ug/L	ND	10.0	10/03/10 11:44	
Benzene	ug/L	ND	1.0	10/03/10 11:44	
Bromobenzene	ug/L	ND	1.0	10/03/10 11:44	
Bromochloromethane	ug/L	ND	1.0	10/03/10 11:44	
Bromodichloromethane	ug/L	ND	1.0	10/03/10 11:44	
Bromoform	ug/L	ND	1.0	10/03/10 11:44	
Bromomethane	ug/L	ND	1.0	10/03/10 11:44	
Carbon disulfide	ug/L	ND	5.0	10/03/10 11:44	
Carbon tetrachloride	ug/L	ND	1.0	10/03/10 11:44	
Chlorobenzene	ug/L	ND	1.0	10/03/10 11:44	
Chloroethane	ug/L	ND	1.0	10/03/10 11:44	
Chloroform	ug/L	ND	1.0	10/03/10 11:44	
Chloromethane	ug/L	ND	1.0	10/03/10 11:44	
cis-1,2-Dichloroethene	ug/L	ND	1.0	10/03/10 11:44	
cis-1,3-Dichloropropene	ug/L	ND	1.0	10/03/10 11:44	
Dibromochloromethane	ug/L	ND	1.0	10/03/10 11:44	

Date: 10/14/2010 11:06 AM

### REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: Kansas Waste Water

Pace Project No.: 6086606

METHOD BLANK: 711291

Matrix: Water

Associated Lab Samples: 6086606001, 6086606002, 6086606003, 6086606004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dibromomethane	ug/L	ND	1.0	10/03/10 11:44	
Dichlorodifluoromethane	ug/L	ND	1.0	10/03/10 11:44	
Ethylbenzene	ug/L	ND	1.0	10/03/10 11:44	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	10/03/10 11:44	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	10/03/10 11:44	
Methyl-tert-butyl ether	ug/L	ND	1.0	10/03/10 11:44	
Methylene chloride	ug/L	ND	1.0	10/03/10 11:44	
n-Butylbenzene	ug/L	ND	1.0	10/03/10 11:44	
n-Propylbenzene	ug/L	ND	1.0	10/03/10 11:44	
Naphthalene	ug/L	ND	10.0	10/03/10 11:44	
p-Isopropyltoluene	ug/L	ND	1.0	10/03/10 11:44	
sec-Butylbenzene	ug/L	ND	1.0	10/03/10 11:44	
Styrene	ug/L	ND	1.0	10/03/10 11:44	
tert-Butylbenzene	ug/L	ND	1.0	10/03/10 11:44	
Tetrachloroethene	ug/L	ND	1.0	10/03/10 11:44	
Toluene	ug/L	ND	1.0	10/03/10 11:44	
trans-1,2-Dichloroethene	ug/L	ND	1.0	10/03/10 11:44	
trans-1,3-Dichloropropene	ug/L	ND	1.0	10/03/10 11:44	
Trichloroethene	ug/L	ND	1.0	10/03/10 11:44	
Trichlorofluoromethane	ug/L	ND	1.0	10/03/10 11:44	
Vinyl chloride	ug/L	ND	1.0	10/03/10 11:44	
Xylene (Total)	ug/L	ND	3.0	10/03/10 11:44	
1,2-Dichloroethane-d4 (S)	%	93	82-119	10/03/10 11:44	
4-Bromofluorobenzene (S)	%	101	87-113	10/03/10 11:44	
Dibromofluoromethane (S)	%	102	86-112	10/03/10 11:44	
Toluene-d8 (S)	%	102	90-110	10/03/10 11:44	

LABORATORY CONTROL SAMPLE: 711292

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	20	22.0	110	79-116	
1,1,1-Trichloroethane	ug/L	20	21.2	106	77-113	
1,1,2,2-Tetrachloroethane	ug/L	20	18.9	94	68-122	
1,1,2-Trichloroethane	ug/L	20	20.9	104	82-117	
1,1-Dichloroethane	ug/L	20	20.7	103	67-122	
1,1-Dichloroethene	ug/L	20	23.7	118	70-119	
1,1-Dichloropropene	ug/L	20	21.1	106	81-115	
1,2,3-Trichlorobenzene	ug/L	20	19.9	99	66-135	
1,2,3-Trichloropropane	ug/L	20	18.4	92	76-126	
1,2,4-Trichlorobenzene	ug/L	20	19.7	99	66-126	
1,2,4-Trimethylbenzene	ug/L	20	19.8	99	78-115	
1,2-Dibromo-3-chloropropane	ug/L	20	24.1	121	58-147	
1,2-Dibromoethane (EDB)	ug/L	20	21.2	106	84-121	
1,2-Dichlorobenzene	ug/L	20	20.9	105	79-116	
1,2-Dichloroethane	ug/L	20	19.2	96	74-119	

### QUALITY CONTROL DATA

Project: Kansas Waste Water

Pace Project No.: 6086606

LABORATORY CONTROL SAMPLE: 711292

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethene (Total)	ug/L	40	44.0	110	78-117	
1,2-Dichloropropane	ug/L	20	19.6	98	77-115	
1,3,5-Trimethylbenzene	ug/L	20	19.5	98	83-117	
1,3-Dichlorobenzene	ug/L	20	21.7	108	79-112	
1,3-Dichloropropane	ug/L	20	20.7	103	82-119	
1,4-Dichlorobenzene	ug/L	20	21.8	109	78-111	
2,2-Dichloropropane	ug/L	20	22.1	110	57-130	
2-Butanone (MEK)	ug/L	100	89.9	90	41-157	
2-Chlorotoluene	ug/L	20	20.1	100	82-118	
2-Hexanone	ug/L	100	96.1	96	57-137	
4-Chlorotoluene	ug/L	20	22.5	112	83-114	
4-Methyl-2-pentanone (MIBK)	ug/L	100	92.9	93	62-118	
Acetone	ug/L	100	93.6	94	38-174	
Benzene	ug/L	20	19.5	97	79-116	
Bromobenzene	ug/L	20	18.9	95	81-115	
Bromochloromethane	ug/L	20	20.3	102	72-123	
Bromodichloromethane	ug/L	20	21.9	110	76-113	
Bromoform	ug/L	20	22.9	115	62-129	
Bromomethane	ug/L	20	23.6	118	24-168	
Carbon disulfide	ug/L	20	28.3	142	45-129	L3
Carbon tetrachloride	ug/L	20	19.7	99	67-124	
Chlorobenzene	ug/L	20	23.0	115	79-113	L3
Chloroethane	ug/L	20	21.4	107	57-153	
Chloroform	ug/L	20	21.3	107	74-116	
Chloromethane	ug/L	20	17.7	88	51-138	
cis-1,2-Dichloroethene	ug/L	20	21.0	105	77-120	
cis-1,3-Dichloropropene	ug/L	20	22.9	114	76-116	
Dibromochloromethane	ug/L	20	23.0	115	73-115	
Dibromomethane	ug/L	20	19.1	95	75-115	
Dichlorodifluoromethane	ug/L	20	13.9	69	6-181	
Ethylbenzene	ug/L	20	19.8	99	76-122	
Hexachloro-1,3-butadiene	ug/L	20	20.4	102	68-129	
Isopropylbenzene (Cumene)	ug/L	20	21.4	107	71-104	L3
Methyl-tert-butyl ether	ug/L	20	21.4	107	62-131	
Methylene chloride	ug/L	20	22.8	114	61-137	
n-Butylbenzene	ug/L	20	20.7	104	75-124	
n-Propylbenzene	ug/L	20	20.0	100	79-116	
Naphthalene	ug/L	20	18.3	91	60-145	
p-Isopropyltoluene	ug/L	20	19.4	97	79-114	
sec-Butylbenzene	ug/L	20	20.4	102	83-119	
Styrene	ug/L	20	21.0	105	70-125	
tert-Butylbenzene	ug/L	20	22.2	111	81-118	
Tetrachloroethene	ug/L	20	23.1	116	77-117	
Toluene	ug/L	20	20.3	101	75-120	
trans-1,2-Dichloroethene	ug/L	20	23.0	115	76-119	
trans-1,3-Dichloropropene	ug/L	20	21.3	106	64-105	L3
Trichloroethene	ug/L	20	19.4	97	78-118	
Trichlorofluoromethane	ug/L	20	20.9	105	73-118	

### QUALITY CONTROL DATA

Project: Kansas Waste Water

Pace Project No.: 6086606

LABORATORY CONTROL SAMPLE: 711292

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Vinyl chloride	ug/L	20	22.6	113	60-122	
Xylene (Total)	ug/L	60	61.1	102	74-124	
1,2-Dichloroethane-d4 (S)	%			89	82-119	
4-Bromofluorobenzene (S)	%			97	87-113	
Dibromofluoromethane (S)	%			105	86-112	
Toluene-d8 (S)	%			101	90-110	

### QUALITY CONTROL DATA

Project: Kansas Waste Water

Pace Project No.: 6086606

QC Batch: WETA/14191 Analysis Method: EPA 300.0  
 QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions  
 Associated Lab Samples: 6086606001, 6086606002, 6086606003, 6086606004

METHOD BLANK: 710224 Matrix: Water  
 Associated Lab Samples: 6086606001, 6086606002, 6086606003, 6086606004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrate as N	mg/L	ND	0.10	10/01/10 18:26	

LABORATORY CONTROL SAMPLE: 710225

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrate as N	mg/L	5	4.9	99	90-110	

MATRIX SPIKE SAMPLE: 710226

Parameter	Units	6086606004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrate as N	mg/L	0.99	5	5.5	91	68-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 710227 710228

Parameter	Units	6086604004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrate as N	mg/L	0.18	5	5	5.1	5.2	99	100	68-120	1	16	

## QUALIFIERS

Project: Kansas Waste Water

Pace Project No.: 6086606

### 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.

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

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 NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

### BATCH QUALIFIERS

Batch: MSV/32160

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

### ANALYTE QUALIFIERS

E Analyte concentration exceeded the calibration range. The reported result is estimated.

L3 Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

P2 Re-extraction or re-analysis could not be performed due to insufficient sample amount.



### Sample Condition Upon Receipt

Client Name: TCW

Project # Geo 86606

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace  Other \_\_\_\_\_  
 Tracking #: 8717 9523 1713 Pace Shipping Label Used?  Yes  No  
 Custody Seal on Cooler/Box Present:  Yes  No <sup>to Bliv</sup> Seals intact:  Yes  No  
 Packing Material:  Bubble Wrap  Bubble Bags  Foam  None  Other \_\_\_\_\_  
 Thermometer Used: T-191 T-194 Type of Ice: Wet Blue None  Samples on ice, cooling process has begun

Optional
Proj. Due Date: <u>10/13</u>
Proj. Name:

Cooler Temperature: 2.2  
 Temperature should be above freezing to 6°C

Date and Initials of person examining contents: <u>10/11/10</u> <u>by</u>
---

		Comments:
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 type="checkbox"/> No <input type="checkbox"/> N/A	6. <u>NO 3</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 type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
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>WT</u>		
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	
Exceptions: <u>VOA</u> coliform, TOC, O&G, WI-DRO (water), Phenolics	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed <input checked="" type="checkbox"/>
		Lot # of added preservative _____
Trip Blank present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	15.
Pace Trip Blank lot # (if purchased): _____		
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: 10-1-10

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



# CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 1  
**1272142**

**Section A**

Required Client Information:  
Company: TCW Construction  
Address: 141 M Street  
Lincoln NE 68508  
Email To: tkamler@tcwconstruction  
Phone: 402 416 7255 Fax:  
Requested Due Date/TAT:

**Section B**

Required Project Information:  
Report To: tkamler@tcwconstruction.com  
Copy To: Sargnier@prodigy.net  
Purchase Order No.:  
Project Name: Kansas Waste Water  
Project Number:

**Section C**

Invoice Information:  
Attention: Travis Kamler  
Company Name: TCW  
Address:  
Pace Quote Reference:  
Pace Project Manager: Trudy Gipson  
Pace Profile #:

**REGULATORY AGENCY**  
 NPDES  GROUND WATER  DRINKING WATER  
 UST  RCRA  OTHER  
Site Location: KS  
STATE: KS

ITEM #	Section D Required Client Information	Matrix Codes MATRIX / CODE Drinking Water DW Water WT Waste Water WW Product P Soil/Solid SL Oil OL Wipe WP Air AR Tissue TS Other OT	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED				SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives										Requested Analysis Filtered (Y/N)											Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.								
					COMPOSITE START		COMPOSITE END/GRAB				Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	Methanol	Other	Analysis Test ↓	V	C	B	D	T	H	N	S														
					DATE	TIME	DATE	TIME																																	
1	<u>BAPURGE-W-930101</u>		<u>WWC</u>	<u>C</u>	<u>3/10</u>		<u>9/30</u>	<u>9:00</u>	<u>59</u>	<u>5</u>	<u>3</u>																														<u>BPTU 2(0924) 2/09/10</u>
2	<u>CNPURGE-W-930102</u>		<u>WWC</u>	<u>C</u>	<u>4/10</u>		<u>9-30</u>	<u>10:00</u>	<u>60</u>	<u>5</u>	<u>3</u>																														
3	<u>EV PURGE-W-930103</u>		<u>WWC</u>	<u>C</u>	<u>4/10</u>		<u>9-30</u>	<u>11:32</u>	<u>65</u>	<u>5</u>	<u>3</u>																														
4	<u>MR PURGE-W-930104</u>		<u>WWC</u>	<u>C</u>	<u>4/10</u>		<u>9-30</u>	<u>13:42</u>		<u>5</u>	<u>3</u>																														
5-12	/																																								
ADDITIONAL COMMENTS					RELINQUISHED BY / AFFILIATION					DATE		TIME		ACCEPTED BY / AFFILIATION					DATE		TIME		SAMPLE CONDITIONS																		
<u>All samples collected from 55 gal Drum stored at each site</u>					<u>TCW</u>					<u>9-30-10</u>		<u>18 30</u>		<u>[Signature]</u>					<u>10/1/10</u>		<u>0915 2-2</u>		<u>Y Y Y</u>																		

ORIGINAL

SAMPLER NAME AND SIGNATURE				Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER: <u>Travis Kamler</u>							
SIGNATURE of SAMPLER: <u>[Signature]</u>			DATE Signed (MM/DD/YY): <u>09/30/10</u>				

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





# INVOICE

Pace Analytical Services, Inc.  
 9608 Loiret Blvd.  
 Lenexa, KS 66219  
 Phone: (913)599-5665

**Invoice Number: 106081867**  
**Date: 10/14/2010**  
**Total Amount Due: \$592.00**

**Sold To:**

Mr. Travis Kamler  
 TCW Construction Inc  
 141 M Street  
 Lincoln, NE 68508  
 402-475-5030

**Please Remit To:**

**Pace Analytical Services, Inc.**  
 P.O. Box 684056  
 Milwaukee, WI 53268-4056

Client Number/Client ID	Purchase Order No	Pace Project Mgr	Terms	Page
60-508440 / TCW Const	Credit Card	Trudy Gipson	Net 30 Days**	1

**Client Project:** Kansas Waste Water  
**Pace Project No:** 6086606  
**Report Sent To:** Mr. David Surgnier,  
 Mr. Travis Kamler, TCW Construction Inc  
**Comments:**

**Client Name:** TCW Construction Inc  
**Sample Received:** 10/1/2010

**ANALYTICAL CHARGES**

Quantity	Unit	Description	Method	Matrix	Price	Total
4	Ea	300.0 IC Anions-Nitrate	EPA 300.0	Water	\$18.00	\$72.00
4	Ea	504 GCS EDB DBCP	EPA 504.1	Water	\$60.00	\$240.00
4	Ea	8260 VOC by GC/MS-Full Scan	EPA 5030B/8260	Water	\$70.00	\$280.00
<b>Analytical Subtotal</b>						<b>\$592.00</b>

**Total Number of Charges 12**

**Total Invoice Amount \$592.00**

**Samples Received for analysis:**

Lab ID	Client Sample ID	Received
6086606001	BAPURGE-W-930101	10/1/2010 9:15:00
6086606002	CNPURGE-W-930102	10/1/2010 9:15:00
6086606003	EVPURGE-W-930103	10/1/2010 9:15:00
6086606004	MRPURGE-W-930104	10/1/2010 9:15:00

*If you have any questions or to pay by credit card, please contact Trudy Gipson at Pace.  
 Phone: 1(913)563-1405 Email: trudy.gipson@pacelabs.com*

**\*\*1.5% MONTHLY FINANCE CHARGE ASSESSED AFTER 30 DAYS OR TERMS OF CONTRACT.  
 PLEASE REFERENCE THE INVOICE NUMBER ON ALL REMITTANCE ADVICE.**

AN EQUAL OPPORTUNITY EMPLOYER

*Please complete and return copy of invoice with your payment.*

**INVOICE TOTAL \$592.00**

Amount Paid: \$ \_\_\_\_\_

Check No: \_\_\_\_\_

Customer No: 60-508440 Invoice No: 106081867

AGEM 40 L

orig X

CITY OF SABETHA Cash - matt  
805 MAIN  
PO BOX 187  
SABETHA KS 66534 785-284-2158

Receipt No: 2.001326

Dec 17, 2010

TCW Construction

*[Signature]*

WASTEWATER FUND-MISC  
MISCELLANEOUS INCOME-purg  
ed water

1/8/11  
50.00

Total: 50.00

Cash 50.00

Total Applied: 50.00

Change Tendered: .00

12/17/10 01:28PM

**Supplement 2:**

**Automatically Recorded Water Level Data**

TABLE S2.1 Automatically recorded water levels at Morrill, October 2009 - October 2010

Date	Time	Depth to Water (ft TOC)					
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s
10/1/09	0:00	24.314	32.810	25.145	34.236	5.699	15.305
10/1/09	4:00	24.321	32.788	25.076	34.216	5.707	15.271
10/1/09	8:00	24.294	32.807	25.076	34.197	5.747	15.277
10/1/09	12:00	24.286	32.823	25.078	34.181	5.705	15.290
10/1/09	16:00	24.182	32.898	25.217	34.144	5.647	15.375
10/1/09	20:00	24.113	32.965	25.356	34.146	5.460	15.459
10/2/09	0:00	24.175	32.963	25.345	34.220	5.365	15.450
10/2/09	4:00	24.254	32.951	25.301	34.202	5.367	15.420
10/2/09	8:00	24.271	32.964	25.302	34.230	5.381	15.431
10/2/09	12:00	24.289	32.991	25.335	34.236	5.443	15.461
10/2/09	16:00	24.276	33.020	25.370	34.204	5.439	15.494
10/2/09	20:00	24.227	33.066	25.455	34.248	5.321	15.537
10/3/09	0:00	24.259	33.093	25.491	34.273	5.272	15.556
10/3/09	4:00	24.262	33.121	25.534	34.269	5.212	15.581
10/3/09	8:00	24.277	33.153	25.583	34.285	5.148	15.611
10/3/09	12:00	24.319	33.186	25.638	34.324	5.234	15.643
10/3/09	16:00	24.378	33.191	25.636	34.405	5.255	15.643
10/3/09	20:00	24.354	33.225	25.680	34.414	5.102	15.676
10/4/09	0:00	24.331	33.271	25.760	34.412	5.117	15.723
10/4/09	4:00	24.374	33.284	25.777	34.493	5.146	15.728
10/4/09	8:00	24.403	33.308	25.808	34.514	5.125	15.749
10/4/09	12:00	24.456	33.344	25.852	34.551	5.173	15.775
10/4/09	16:00	24.560	33.321	25.784	34.597	5.395	15.738
10/4/09	20:00	24.522	33.349	25.813	34.622	5.276	15.771
10/5/09	0:00	24.495	33.380	25.850	34.671	5.179	15.795
10/5/09	4:00	24.540	33.376	25.821	34.680	5.197	15.773
10/5/09	8:00	24.542	33.398	25.828	34.708	5.139	15.771
10/5/09	12:00	24.646	33.379	25.770	34.719	5.337	15.752
10/5/09	16:00	24.718	33.350	25.673	34.745	5.654	15.710
10/5/09	20:00	24.656	33.364	25.660	34.694	5.636	15.719
10/6/09	0:00	24.644	33.370	25.634	34.696	5.712	15.710
10/6/09	4:00	24.594	33.397	25.677	34.668	5.658	15.745
10/6/09	8:00	24.537	33.449	25.755	34.678	5.514	15.803
10/6/09	12:00	24.525	33.504	25.848	34.654	5.498	15.855
10/6/09	16:00	24.552	33.529	25.886	34.696	5.523	15.879
10/6/09	20:00	24.490	33.584	25.986	34.675	5.300	15.940
10/7/09	0:00	24.515	33.615	26.029	34.749	5.141	15.960
10/7/09	4:00	24.560	33.630	26.047	34.777	5.023	15.970
10/7/09	8:00	24.599	33.646	26.068	34.809	5.256	15.979
10/7/09	12:00	24.709	33.644	26.049	34.823	5.463	15.966
10/7/09	16:00	24.773	33.631	25.994	34.844	5.710	15.944
10/7/09	20:00	24.704	33.659	26.009	34.867	5.598	15.953
10/8/09	0:00	24.711	33.682	26.038	34.895	5.576	15.992
10/8/09	4:00	24.735	33.689	26.028	34.892	5.596	15.985
10/8/09	8:00	24.716	33.713	26.052	34.902	5.567	16.009
10/8/09	12:00	24.713	33.740	26.087	34.897	5.489	16.024
10/8/09	16:00	24.693	33.776	26.146	34.934	5.454	16.061
10/8/09	20:00	24.704	33.798	26.176	34.950	5.390	16.083

TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)					
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s
10/9/09	0:00	24.728	33.815	26.197	34.991	5.394	16.092
10/9/09	4:00	24.713	33.842	26.239	34.982	5.322	16.115
10/9/09	8:00	24.728	33.872	26.280	35.026	5.245	16.148
10/9/09	12:00	24.805	33.902	26.327	35.056	5.213	16.172
10/9/09	16:00	24.870	33.904	26.310	35.061	5.365	16.169
10/9/09	20:00	24.803	33.943	26.371	35.112	5.210	16.211
10/10/09	0:00	24.798	33.968	26.415	35.149	5.217	16.232
10/10/09	4:00	24.790	34.016	26.493	35.156	5.355	16.280
10/10/09	8:00	24.783	34.063	26.584	35.183	5.192	16.330
10/10/09	12:00	24.802	34.101	26.652	35.262	5.222	16.365
10/10/09	16:00	24.907	34.078	26.606	35.320	5.317	16.334
10/10/09	20:00	24.932	34.098	26.608	35.350	5.262	16.345
10/11/09	0:00	24.937	34.121	26.640	35.393	5.224	16.365
10/11/09	4:00	24.977	34.127	26.636	35.423	5.179	16.364
10/11/09	8:00	24.972	34.156	26.675	35.412	5.232	16.393
10/11/09	12:00	25.014	34.149	26.651	35.451	5.249	16.380
10/11/09	16:00	25.093	34.116	26.565	35.502	5.385	16.328
10/11/09	20:00	25.058	34.138	26.568	35.518	5.385	16.343
10/12/09	0:00	25.066	34.140	26.548	35.509	5.467	16.339
10/12/09	4:00	25.088	34.131	26.509	35.550	5.470	16.321
10/12/09	8:00	25.044	34.174	26.554	35.495	5.457	16.364
10/12/09	12:00	25.024	34.200	26.593	35.509	5.521	16.391
10/12/09	16:00	25.044	34.218	26.610	35.532	5.655	16.408
10/12/09	20:00	24.976	34.274	26.708	35.530	5.486	16.464
10/13/09	0:00	24.961	34.320	26.783	35.546	5.296	16.505
10/13/09	4:00	25.006	34.335	26.805	35.578	5.277	16.514
10/13/09	8:00	25.041	34.346	26.822	35.608	5.257	16.523
10/13/09	12:00	25.106	34.348	26.808	35.650	5.407	16.516
10/13/09	16:00	25.175	34.315	26.721	35.680	5.539	16.468
10/13/09	20:00	25.118	34.341	26.752	35.666	5.389	16.475
10/14/09	0:00	25.111	34.354	26.776	35.684	5.383	16.471
10/14/09	4:00	25.131	34.341	26.748	35.698	5.366	16.453
10/14/09	8:00	25.113	34.353	26.769	35.666	5.432	16.481
10/14/09	12:00	25.143	34.329	26.723	35.717	5.497	16.456
10/14/09	16:00	25.170	34.302	26.660	35.705	5.609	16.432
10/14/09	20:00	25.128	34.314	26.673	35.689	5.664	16.443
10/15/09	0:00	25.103	34.327	26.678	35.675	5.644	16.453
10/15/09	4:00	25.093	34.325	26.676	35.652	5.675	16.455
10/15/09	8:00	25.046	34.359	26.729	35.661	5.584	16.497
10/15/09	12:00	25.009	34.387	26.788	35.680	5.629	16.520
10/15/09	16:00	25.066	34.393	26.798	35.661	5.720	16.540
10/15/09	20:00	25.023	34.436	26.877	35.691	5.609	16.590
10/16/09	0:00	25.031	34.459	26.925	35.705	5.513	16.618
10/16/09	4:00	25.039	34.480	26.967	35.747	5.434	16.642
10/16/09	8:00	25.036	34.518	27.038	35.728	5.332	16.687
10/16/09	12:00	25.076	34.539	27.079	35.781	5.396	16.711
10/16/09	16:00	25.165	34.522	27.049	35.839	5.509	16.689
10/16/09	20:00	25.123	34.559	27.099	35.878	5.363	16.737

TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
10/17/09	0:00	25.113	34.595	27.167	35.906	5.281	16.776	
10/17/09	4:00	25.118	34.620	27.216	35.950	5.221	16.800	
10/17/09	8:00	25.111	34.661	27.297	35.980	5.177	16.850	
10/17/09	12:00	25.170	34.677	27.326	36.012	5.227	16.865	
10/17/09	16:00	25.247	34.659	27.277	36.089	5.276	16.839	
10/17/09	20:00	25.264	34.656	27.251	36.112	5.282	16.832	
10/18/09	0:00	25.289	34.656	27.228	36.112	5.222	16.826	
10/18/09	4:00	25.292	34.645	27.183	36.135	5.270	16.802	
10/18/09	8:00	25.329	34.642	27.156	36.142	5.328	16.800	
10/18/09	12:00	25.393	34.627	27.107	36.179	5.459	16.776	
10/18/09	16:00	25.455	34.579	26.994	36.156	5.771	16.724	
10/18/09	20:00	25.369	34.599	26.998	36.116	5.736	16.748	
10/19/09	0:00	25.346	34.601	26.981	36.137	5.711	16.746	
10/19/09	4:00	25.336	34.597	26.955	36.114	5.837	16.735	
10/19/09	8:00	25.290	34.632	26.999	36.093	5.816	16.774	
10/19/09	12:00	25.301	34.659	27.038	36.096	5.830	16.806	
10/19/09	16:00	25.359	34.646	26.999	36.061	5.921	16.787	
10/19/09	20:00	25.287	34.674	27.043	36.100	5.811	16.823	
10/20/09	0:00	25.264	34.708	27.097	36.070	5.764	16.858	
10/20/09	4:00	25.304	34.702	27.075	36.086	5.735	16.843	
10/20/09	8:00	25.302	34.719	27.097	36.109	5.793	16.862	
10/20/09	12:00	25.312			36.112	5.710	16.886	3.542
10/20/09	16:00	25.346	34.697	27.118	36.122	5.678	16.886	3.663
10/20/09	20:00	25.301	34.728	27.174	36.113	5.673	16.928	3.532
10/21/09	0:00	25.279	34.766	27.242	36.119	5.661	16.969	3.436
10/21/09	4:00	25.319	34.772	27.245	36.157	5.680	16.967	3.459
10/21/09	8:00	25.329	34.785	27.264	36.162	5.655	16.981	3.415
10/21/09	12:00	25.358	34.806	27.293	36.186	5.654	17.003	3.523
10/21/09	16:00	25.391	34.793	27.274	36.201	5.661	16.995	3.654
10/21/09	20:00	25.346	34.806	27.313	36.212	5.636	16.977	3.518
10/22/09	0:00	25.334	34.780	27.279	36.221	5.654	16.750	3.423
10/22/09	4:00	25.237	34.686	27.211	36.227	5.617	16.165	3.277
10/22/09	8:00	25.044	34.573	27.118	36.240	5.576	15.697	3.154
10/22/09	12:00	24.884	34.442	27.052	36.251	5.568	15.762	3.170
10/22/09	16:00	24.708	34.291	26.949	36.253	5.510	15.399	3.139
10/22/09	20:00	24.442	34.146	26.808	36.203	5.438	15.093	2.849
10/23/09	0:00	24.186	33.989	26.726	36.215	5.452	15.048	2.810
10/23/09	4:00	24.012	33.849	26.630	36.193	5.508	15.252	2.802
10/23/09	8:00	23.853	33.769	26.572	36.166	5.518	15.433	2.759
10/23/09	12:00	23.781	33.693	26.501	36.128	5.516	15.563	2.782
10/23/09	16:00	23.740	33.618	26.409	36.161	5.557	15.660	2.845
10/23/09	20:00	23.685	33.559	26.355	36.125	5.567	15.765	2.723
10/24/09	0:00	23.702	33.490	26.262	36.168	5.569	15.817	2.690
10/24/09	4:00	23.709	33.437	26.199	36.180	5.573	15.864	2.690
10/24/09	8:00	23.720	33.381	26.130	36.177	5.522	15.901	2.723
10/24/09	12:00	23.770	33.341	26.087	36.184	5.534	15.938	2.913
10/24/09	16:00	23.839	33.265	25.955	36.217	5.567	15.916	3.043
10/24/09	20:00	23.752	33.261	25.965	36.177	5.577	15.975	2.967

TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
10/25/09	0:00	23.740	33.252	25.977	36.173	5.544	16.031	2.837
10/25/09	4:00	23.742	33.240	25.989	36.145	5.627	16.072	2.767
10/25/09	8:00	23.752	33.244	26.036	36.170	5.583	16.122	2.765
10/25/09	12:00	23.772	33.261	26.112	36.150	5.620	16.187	2.880
10/25/09	16:00	23.824	33.252	26.123	36.193	5.592	16.212	2.996
10/25/09	20:00	23.767	33.309	26.260	36.186	5.641	16.310	2.831
10/26/09	0:00	23.812	33.315	26.311	36.216	5.625	16.347	2.773
10/26/09	4:00	23.857	33.332	26.351	36.258	5.643	16.386	2.714
10/26/09	8:00	23.899	33.332	26.365	36.295	5.610	16.404	2.751
10/26/09	12:00	24.003	33.328	26.370	36.350	5.655	16.423	2.928
10/26/09	16:00	24.107	33.284	26.277	36.372	5.634	16.378	3.100
10/26/09	20:00	24.087	33.284	26.267	36.383	5.612	16.393	2.947
10/27/09	0:00	24.115	33.267	26.233	36.394	5.573	16.380	2.865
10/27/09	4:00	24.152	33.248	26.177	36.393	5.597	16.360	2.889
10/27/09	8:00	24.167	33.242	26.141	36.383	5.601	16.347	2.881
10/27/09	12:00	24.231	33.225	26.089	36.383	5.589	16.328	3.091
10/27/09	16:00	24.286	33.181	25.982	36.361	5.653	16.271	3.134
10/27/09	20:00	24.194	33.210	26.011	36.307	5.595	16.306	3.005
10/28/09	0:00	24.167	33.240	26.063	36.288	5.574	16.345	2.954
10/28/09	4:00	24.162	33.255	26.072	36.237	5.580	16.364	2.952
10/28/09	8:00	24.162	33.278	26.106	36.252	5.597	16.391	2.911
10/28/09	12:00	24.216	33.291	26.126	36.246	5.570	16.401	3.046
10/28/09	16:00	24.242	33.301	26.126	36.230	5.591	16.414	3.222
10/28/09	20:00	24.204	33.340	26.194	36.231	5.630	16.462	3.117
10/29/09	0:00	24.224	33.366	26.236	36.235	5.578	16.488	3.048
10/29/09	4:00	24.284	33.330	26.165	36.258	5.562	16.388	3.105
10/29/09	8:00	24.254	33.326	26.177	36.206	5.605	16.174	3.101
10/29/09	12:00	24.209	33.238	26.075	36.235	5.444	15.597	3.126
10/29/09	16:00	24.085	33.133	25.946	36.219	5.458	15.370	3.021
10/29/09	20:00	23.869	33.061	25.875	36.172	5.438	15.251	2.947
10/30/09	0:00	23.712	32.980	25.790	36.171	5.502	15.357	2.949
10/30/09	4:00	23.561	32.948	25.792	36.135	5.522	15.481	2.753
10/30/09	8:00	23.464	32.913	25.785	36.089	5.520	15.568	2.535
10/30/09	12:00	23.420	32.891	25.790	36.107	5.514	15.661	2.545
10/30/09	16:00	23.400	32.866	25.780	36.092	5.522	15.734	2.570
10/30/09	20:00	23.333	32.889	25.863	36.055	5.588	15.847	2.435
10/31/09	0:00	23.360	32.872	25.872	36.109	5.565	15.899	2.398
10/31/09	4:00	23.368	32.879	25.909	36.117	5.566	15.970	2.378
10/31/09	8:00	23.345	32.917	26.009	36.133	5.569	16.067	2.400
10/31/09	12:00	23.447	32.919	26.046	36.181	5.592	16.118	2.583
10/31/09	16:00	23.559	32.883	26.000	36.256	5.621	16.115	2.767
10/31/09	20:00	23.544	32.883	26.004	36.272	5.580	16.146	2.610
11/1/09	0:00	23.589	32.869	25.988	36.311	5.565	16.156	2.543
11/1/09	4:00	23.636	32.850	25.951	36.301	5.544	16.156	2.551
11/1/09	8:00	23.663	32.841	25.934	36.334	5.547	16.167	2.545
11/1/09	12:00	23.728	32.839	25.924	36.345	5.647	16.174	2.722
11/1/09	16:00	23.783	32.816	25.872	36.363	5.614	16.158	2.845
11/1/09	20:00	23.693	32.854	25.941	36.343	5.593	16.219	2.657

TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
11/2/09	0:00	23.673	32.889	26.004	36.320	5.596	16.264	2.543
11/2/09	4:00	23.666	32.923	26.072	36.359	5.610	16.312	2.573
11/2/09	8:00	23.649	32.984	26.199	36.355	5.612	16.395	2.481
11/2/09	12:00	23.711	33.021	26.280	36.405	5.589	16.436	2.618
11/2/09	16:00	23.802	33.019	26.282	36.456	5.573	16.444	2.816
11/2/09	20:00	23.825	33.045	26.319	36.483	5.622	16.477	2.653
11/3/09	0:00	23.874	33.053	26.324	36.521	5.596	16.486	2.550
11/3/09	4:00	23.922	33.055	26.314	36.547	5.633	16.492	2.591
11/3/09	8:00	23.961	33.055	26.294	36.566	5.620	16.496	2.573
11/3/09	12:00	24.086	33.036	26.236	36.600	5.602	16.464	2.820
11/3/09	16:00	24.162	32.977	26.092	36.625	5.587	16.382	2.959
11/3/09	20:00	24.105	32.998	26.100	36.599	5.554	16.403	2.902
11/4/09	0:00	24.066	33.030	26.131	36.575	5.587	16.434	2.755
11/4/09	4:00	24.046	33.061	26.180	36.560	5.570	16.473	2.716
11/4/09	8:00	24.009	33.118	26.275	36.546	5.574	16.536	2.695
11/4/09	12:00	24.048	33.162	26.358	36.559	5.620	16.585	2.809
11/4/09	16:00	24.132	33.164	26.348	36.590	5.570	16.579	2.971
11/4/09	20:00	24.098	33.189	26.382	36.597	5.583	16.607	2.793
11/5/09	0:00	24.123	33.206	26.399	36.617	5.595	16.618	2.744
11/5/09	4:00	24.175	33.214	26.399	36.607	5.581	16.620	2.677
11/5/09	8:00	24.227	33.210	26.370	36.618	5.617	16.611	2.671
11/5/09	12:00	24.324	33.202	26.329	36.659	5.616	16.589	2.903
11/5/09	16:00	24.410	33.151	26.202	36.663	5.607	16.510	3.146
11/5/09	20:00	24.334	33.164	26.202	36.643	5.543	16.520	3.028
11/6/09	0:00	24.346	33.155	26.161	36.608	5.543	16.499	3.010
11/6/09	4:00	24.349	33.155	26.132	36.582	5.516	16.488	3.067
11/6/09	8:00	24.334	33.160	26.117	36.553	5.597	16.483	3.093
11/6/09	12:00	24.371	33.168	26.112	36.560	5.512	16.484	3.070
11/6/09	16:00	24.416	33.143	26.044	36.531	5.529	16.443	3.095
11/6/09	20:00	24.311	33.189	26.100	36.473	5.560	16.494	2.934
11/7/09	0:00	24.279	33.214	26.129	36.450	5.560	16.505	2.878
11/7/09	4:00	24.290	33.238	26.165	36.442	5.582	16.540	2.831
11/7/09	8:00	24.254	33.286	26.253	36.434	5.539	16.594	2.795
11/7/09	12:00	24.299	33.330	26.336	36.433	5.547	16.644	2.887
11/7/09	16:00	24.386	33.338	26.333	36.465	5.575	16.641	3.081
11/7/09	20:00	24.322	33.380	26.399	36.466	5.541	16.682	2.919
11/8/09	0:00	24.347	33.395	26.416	36.456	5.553	16.682	2.850
11/8/09	4:00	24.396	33.416	26.433	36.493	5.584	16.702	2.827
11/8/09	8:00	24.429	33.439	26.463	36.476	5.608	16.721	2.819
11/8/09	12:00	24.498	33.449	26.468	36.526	5.604	16.724	2.976
11/8/09	16:00	24.530	33.468	26.473	36.503	5.547	16.735	3.126
11/8/09	20:00	24.453	33.540	26.595	36.527	5.578	16.812	2.983
11/9/09	0:00	24.433	33.603	26.704	36.556	5.621	16.871	2.907
11/9/09	4:00	24.453	33.645	26.775	36.567	5.611	16.910	2.827
11/9/09	8:00	24.463	33.695	26.858	36.719	5.578	16.949	2.866
11/9/09	12:00	24.563	33.718	26.889	36.762	5.637	16.964	2.938
11/9/09	16:00	24.662	33.720	26.866	36.786	5.596	16.953	3.146
11/9/09	20:00	24.642	33.762	26.921	36.805	5.554	16.990	3.017



TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
11/10/09	0:00	24.679	33.779	26.936	36.809	5.637	16.999	2.952
11/10/09	4:00	24.706	33.804	26.962	36.821	5.600	17.018	2.892
11/10/09	8:00	24.714	33.840	27.004	36.872	5.618	17.044	2.882
11/10/09	12:00	24.761	33.878	27.058	36.892	5.639	17.075	2.943
11/10/09	16:00	24.845	33.867	27.014	36.900	5.608	17.049	3.223
11/10/09	20:00	24.804	33.899	27.046	36.911	5.635	17.079	3.052
11/11/09	0:00	24.806	33.920	27.065	36.936	5.651	17.087	2.919
11/11/09	4:00	24.841	33.930	27.060	36.983	5.655	17.092	2.952
11/11/09	8:00	24.853	33.960	27.089	36.959	5.663	17.111	2.954
11/11/09	12:00	24.932	33.970	27.082	37.010	5.625	17.111	3.113
11/11/09	16:00	25.027	33.930	26.984	36.993	5.653	17.049	3.236
11/11/09	20:00	24.972	33.951	26.985	37.013	5.669	17.061	3.140
11/12/09	0:00	24.965	33.957	26.968	36.983	5.612	17.059	3.080
11/12/09	4:00	24.995	33.947	26.921	37.012	5.572	17.035	3.091
11/12/09	8:00	25.002	33.936	26.870	36.969	5.655	17.016	3.146
11/12/09	12:00	25.054	33.928	26.831	36.957	5.659	16.997	3.321
11/12/09	16:00	25.094	33.894	26.738	36.938	5.639	16.953	3.276
11/12/09	20:00	25.024	33.918	26.753	36.898	5.621	16.970	3.207
11/13/09	0:00	24.987	33.936	26.766	36.844	5.613	16.981	3.174
11/13/09	4:00	24.999	33.926	26.726	36.867	5.568	16.962	3.213
11/13/09	8:00	24.960	33.951	26.748	36.824	5.615	16.984	3.219
11/13/09	12:00	24.987	33.972	26.770	36.812	5.593	16.994	3.301
11/13/09	16:00	25.007	33.975	26.760	36.812	5.617	16.999	3.305
11/13/09	20:00	24.943	34.029	26.846	36.787	5.605	17.057	3.182
11/14/09	0:00	24.876	34.101	26.972	36.771	5.646	17.133	3.064
11/14/09	4:00	24.878	34.144	27.050	36.756	5.613	17.176	3.076
11/14/09	8:00	24.893	34.186	27.133	36.820	5.630	17.215	3.041
11/14/09	12:00	24.935	34.230	27.214	36.859	5.673	17.254	3.098
11/14/09	16:00	25.015	34.241	27.224	36.902	5.629	17.254	3.260
11/14/09	20:00	24.997	34.285	27.299	36.934	5.675	17.293	3.086
11/15/09	0:00	25.007	34.331	27.377	36.958	5.673	17.337	3.043
11/15/09	4:00	25.051	34.346	27.402	37.001	5.646	17.345	2.965
11/15/09	8:00	25.077	34.382	27.455	37.003	5.693	17.378	3.158
11/15/09	12:00	25.129	34.407	27.487	37.069	5.660	17.393	3.188
11/15/09	16:00	25.223	34.386	27.448	37.128	5.666	17.354	3.256
11/15/09	20:00	25.181	34.445	27.531	37.123	5.646	17.419	3.145
11/16/09	0:00	25.206	34.463	27.553	37.162	5.635	17.430	3.160
11/16/09	4:00	25.225	34.466	27.545	37.163	5.641	17.427	3.151
11/16/09	8:00	25.235	34.472	27.553	37.188	5.635	17.414	3.131
11/16/09	12:00	25.243	34.461	27.538	37.236	5.668	17.391	3.139
11/16/09	16:00	25.258	34.453	27.511	37.245	5.618	17.336	3.146
11/16/09	20:00	25.208	34.474	27.568	37.255	5.616	17.209	3.046
11/17/09	0:00	25.163	34.466	27.577	37.274	5.579	17.003	2.952
11/17/09	4:00	25.081	34.419	27.540	37.286	5.654	16.676	2.827
11/17/09	8:00	24.923	34.371	27.497	37.285	5.585	16.410	2.704
11/17/09	12:00	24.761	34.315	27.458	37.294	5.513	16.260	2.608
11/17/09	16:00	24.536	34.195	27.212	37.303	5.484	16.002	2.537
11/17/09	20:00	24.297	34.090	27.095	37.293	5.383	15.834	2.386

TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
11/18/09	0:00	24.149	33.956	27.005	37.310	5.476	15.808	2.353
11/18/09	4:00	23.988	33.847	26.840	37.301	5.484	15.877	2.324
11/18/09	8:00	23.876	33.742	26.623	37.261	5.515	15.948	1.882
11/18/09	12:00	23.779	33.645	26.436	37.250	5.573	15.988	1.743
11/18/09	16:00	23.672	33.521	25.776	37.255	5.365	15.730	1.443
11/18/09	20:00	23.387	33.410	25.626	37.256	5.202	15.500	1.081
11/19/09	0:00	23.141	33.299	25.511	37.242	5.338	15.474	0.972
11/19/09	4:00	23.018	33.186	25.364	37.231	5.393	15.480	0.950
11/19/09	8:00	22.869	33.091	25.232	37.183	5.457	15.480	0.942
11/19/09	12:00	22.794	33.009	25.113	37.212	5.538	15.472	1.008
11/19/09	16:00	22.633	32.879	24.889	37.215	5.435	15.121	0.840
11/19/09	20:00	22.334	32.789	24.772	37.181	5.261	15.030	0.677
11/20/09	0:00	22.210	32.682	24.619	37.152	5.393	15.017	0.689
11/20/09	4:00	22.153	32.577	24.441	37.172	5.523	14.985	0.741
11/20/09	8:00	22.055	32.495	24.302	37.156	5.562	14.954	0.763
11/20/09	12:00	22.140	32.424	24.166	37.145	5.587	14.991	0.914
11/20/09	16:00	22.182	32.325	23.969	37.138	5.599	14.911	1.068
11/20/09	20:00	22.098	32.249	23.820	37.079	5.628	14.905	0.953
11/21/09	0:00	22.093	32.172	23.679	37.049	5.620	14.904	0.921
11/21/09	4:00	22.112	32.094	23.528	37.045	5.597	14.892	0.931
11/21/09	8:00	22.095	32.042	23.426	36.998	5.605	14.909	0.959
11/21/09	12:00	22.149	31.972	23.314	36.977	5.605	14.904	1.135
11/21/09	16:00	22.211	31.886	23.158	36.935	5.568	14.855	1.242
11/21/09	20:00	22.157	31.857	23.146	36.844	5.584	14.887	1.229
11/22/09	0:00	22.162	31.815	23.097	36.809	5.620	14.902	1.236
11/22/09	4:00	22.139	31.788	23.087	36.771	5.619	14.933	1.127
11/22/09	8:00	22.139	31.756	23.060	36.761	5.553	14.950	1.062
11/22/09	12:00	22.179	31.737	23.077	36.737	5.603	14.980	1.198
11/22/09	16:00	22.256	31.676	22.994	36.716	5.586	14.941	1.236
11/22/09	20:00	22.211	31.669	23.035	36.632	5.613	14.984	1.140
11/23/09	0:00	22.206	31.651	23.045	36.603	5.601	14.991	1.086
11/23/09	4:00	22.258	31.623	23.050	36.612	5.650	14.999	1.133
11/23/09	8:00	22.276	31.615	23.092	36.575	5.648	15.017	1.144
11/23/09	12:00	22.306	31.608	23.142	36.552	5.665	15.036	1.240
11/23/09	16:00	22.363	31.579	23.137	36.499	5.607	15.017	1.317
11/23/09	20:00	22.345	31.579	23.210	36.464	5.609	15.047	1.242
11/24/09	0:00	22.385	31.541	23.220	36.490	5.629	15.017	1.272
11/24/09	4:00	22.333	31.493	23.207	36.429	5.367	14.462	1.066
11/24/09	8:00	21.929	31.421	22.965	36.365	4.908	14.239	0.680
11/24/09	12:00	21.425	31.313	22.531	36.362	4.619	14.027	0.215
11/24/09	16:00	21.120	31.178	22.436	36.301	4.807	13.698	0.254
11/24/09	20:00	20.936	31.084	22.311	36.310	4.996	13.507	0.368
11/25/09	0:00	20.843	30.975	22.150	36.299	5.211	13.499	0.409
11/25/09	4:00	20.785	30.868	21.984	36.243	5.378	13.479	0.521
11/25/09	8:00	20.760	30.801	21.918	36.215	5.441	13.523	0.551
11/25/09	12:00	20.799	30.708	21.809	36.187	5.530	13.527	0.650
11/25/09	16:00	20.814	30.622	21.697	36.153	5.542	13.520	0.803
11/25/09	20:00	20.774	30.561	21.650	36.138	5.536	13.555	0.705

TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
11/26/09	0:00	20.766	30.498	21.592	36.083	5.536	13.570	0.652
11/26/09	4:00	20.776	30.438	21.546	36.089	5.610	13.600	0.687
11/26/09	8:00	20.826	30.385	21.500	36.065	5.579	13.637	0.670
11/26/09	12:00	20.892	30.338	21.465	36.014	5.618	13.672	0.742
11/26/09	16:00	20.976	30.248	21.353	36.013	5.556	13.628	1.008
11/26/09	20:00	20.969	30.193	21.307	35.966	5.521	13.637	0.919
11/27/09	0:00	21.004	30.124	21.236	35.968	5.583	13.618	0.903
11/27/09	4:00	21.051	30.057	21.156	35.912	5.563	13.585	0.964
11/27/09	8:00	21.066	30.011	21.124	35.821	5.567	13.577	1.031
11/27/09	12:00	21.101	29.983	21.124	35.796	5.525	13.602	1.068
11/27/09	16:00	21.158	29.916	21.061	35.755	5.540	13.561	1.044
11/27/09	20:00	21.085	29.902	21.081	35.694	5.537	13.585	0.968
11/28/09	0:00	21.085	29.878	21.104	35.635	5.494	13.600	0.899
11/28/09	4:00	21.083	29.864	21.141	35.582	5.531	13.620	0.893
11/28/09	8:00	21.070	29.862	21.197	35.528	5.544	13.659	0.916
11/28/09	12:00	21.145	29.847	21.236	35.497	5.511	13.676	1.063
11/28/09	16:00	21.204	29.807	21.236	35.462	5.560	13.656	1.226
11/28/09	20:00	21.145	29.830	21.333	35.408	5.513	13.709	0.967
11/29/09	0:00	21.142	29.851	21.435	35.363	5.545	13.765	0.969
11/29/09	4:00	21.157	29.870	21.550	35.314	5.570	13.812	1.001
11/29/09	8:00	21.157	29.914	21.703	35.318	5.587	13.891	1.050
11/29/09	12:00	21.192	29.960	21.866	35.294	5.577	13.969	1.059
11/29/09	16:00	21.298	29.939	21.912	35.330	5.545	13.958	1.182
11/29/09	20:00	21.289	29.981	22.050	35.316	5.557	14.018	1.032
11/30/09	0:00	21.345	29.991	22.145	35.329	5.599	14.042	1.053
11/30/09	4:00	21.398	29.993	22.230	35.298	5.551	14.055	0.970
11/30/09	8:00	21.470	29.983	22.289	35.337	5.564	14.046	1.068
11/30/09	12:00	21.562	29.989	22.378	35.329	5.557	14.053	1.195
11/30/09	16:00	21.628	29.956	22.390	35.319	5.555	14.012	1.209
11/30/09	20:00	21.608	29.954	22.439	35.295	5.533	14.007	1.146
12/1/09	0:00	21.613	29.951	22.490	35.242	5.529	14.001	1.113
12/1/09	4:00	21.631	29.933	22.504	35.246	5.570	13.975	1.126
12/1/09	8:00	21.636	29.928	22.538	35.196	5.566	13.962	1.134
12/1/09	12:00	21.668	29.945	22.606	35.161	5.539	13.975	1.277
12/1/09	16:00	21.725	29.933	22.628	35.117	5.619	13.953	1.220
12/1/09	20:00	21.628	29.983	22.752	35.109	5.580	14.010	1.108
12/2/09	0:00	21.606	30.048	22.908	35.065	5.565	14.083	1.167
12/2/09	4:00	21.618	30.084	23.019	35.064	5.569	14.129	1.178
12/2/09	8:00	21.643	30.113	23.105	35.074	5.547	14.161	1.165
12/2/09	12:00	21.730	30.132	23.163	35.094	5.553	14.168	1.278
12/2/09	16:00	21.780	30.140	23.194	35.050	5.574	14.166	1.359
12/2/09	20:00	21.725	30.208	23.330	35.068	5.538	14.241	1.231
12/3/09	0:00	21.760	30.247	23.423	35.078	5.536	14.282	1.262
12/3/09	4:00	21.770	30.298	23.528	35.078	5.569	14.317	1.125
12/3/09	8:00	21.825	30.329	23.598	35.098	5.538	14.354	1.361
12/3/09	12:00	21.884	30.382	23.693	35.113	5.585	14.406	1.453
12/3/09	16:00	21.959	30.396	23.732	35.146	5.586	14.410	1.477
12/3/09	20:00	21.951	30.447	23.824	35.151	5.546	14.456	1.463

TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
12/4/09	0:00	21.991	30.478	23.880	35.181	5.610	14.478	1.506
12/4/09	4:00	22.038	30.499	23.914	35.166	5.590	14.490	1.526
12/4/09	8:00	22.095	30.506	23.921	35.210	5.616	14.484	1.559
12/4/09	12:00	22.165	30.520	23.938	35.229	5.583	14.486	1.625
12/4/09	16:00	22.244	30.499	23.887	35.231	5.567	14.438	1.656
12/4/09	20:00	22.214	30.510	23.885	35.224	5.577	14.428	1.597
12/5/09	0:00	22.227	30.512	23.877	35.206	5.559	14.417	1.625
12/5/09	4:00	22.254	30.512	23.863	35.157	5.568	14.401	1.672
12/5/09	8:00	22.241	30.531	23.875	35.152	5.595	14.406	1.695
12/5/09	12:00	22.269	30.564	23.921	35.138	5.571	14.434	1.755
12/5/09	16:00	22.313	30.556	23.897	35.088	5.556	14.406	1.774
12/5/09	20:00	22.219	30.627	24.011	35.048	5.571	14.484	1.691
12/6/09	0:00	22.219	30.672	24.096	35.087	5.571	14.533	1.700
12/6/09	4:00	22.237	30.718	24.177	35.088	5.587	14.577	1.704
12/6/09	8:00	22.271	30.749	24.228	35.099	5.558	14.601	1.730
12/6/09	12:00	22.313	30.783	24.289	35.120	5.550	14.629	1.788
12/6/09	16:00	22.403	30.749	24.199	35.126	5.606	14.566	1.789
12/6/09	20:00	22.380	30.797	24.272	35.125	5.583	14.616	1.766
12/7/09	0:00	22.351	30.854	24.364	35.092	5.571	14.668	1.773
12/7/09	4:00	22.328	30.934	24.501	35.121	5.630	14.754	1.776
12/7/09	8:00	22.321	30.957	24.544	35.153	5.601	14.728	1.774
12/7/09	12:00	22.420	31.007	24.622	35.182	5.609	14.821	1.834
12/7/09	16:00	22.524	31.007	24.603	35.193	5.587	14.796	1.895
12/7/09	20:00	22.557	31.026	24.610	35.236	5.614	14.806	1.883
12/8/09	0:00	22.614	31.022	24.576	35.251	5.601	14.782	1.926
12/8/09	4:00	22.673	31.009	24.518	35.237	5.584	14.739	1.937
12/8/09	8:00	22.760	30.942	24.369	35.262	5.551	14.635	1.933
12/8/09	12:00	22.802	30.886	24.220	35.240	5.591	14.549	1.958
12/8/09	16:00	22.817	30.827	24.072	35.189	5.521	14.453	1.924
12/8/09	20:00	22.705	30.846	24.064	35.089	5.510	14.456	1.894
12/9/09	0:00	22.611	30.881	24.108	35.016	5.516	14.490	1.887
12/9/09	4:00	22.470	31.016	24.345	34.907	5.593	14.646	1.830
12/9/09	8:00	22.452	31.091	24.510	34.941	5.572	14.742	1.847
12/9/09	12:00	22.467	31.171	24.681	34.964	5.587	14.843	1.890
12/9/09	16:00	22.549	31.207	24.744	34.993	5.572	14.874	1.903
12/9/09	20:00	22.569	31.255	24.824	35.023	5.615	14.925	1.914
12/10/09	0:00	22.619	31.282	24.863	35.063	5.574	14.923	1.930
12/10/09	4:00	22.698	31.310	24.890	35.088	5.578	14.965	1.930
12/10/09	8:00	22.738	31.341	24.932	35.118	5.594	14.990	1.946
12/10/09	12:00	22.777	31.387	25.000	35.144	5.568	15.036	1.957
12/10/09	16:00	22.832	31.404	25.005	35.153	5.629	15.029	1.975
12/10/09	20:00	22.865	31.436	25.039	35.212	5.615	15.064	1.984
12/11/09	0:00	22.894	31.461	25.063	35.253	5.561	15.077	2.006
12/11/09	4:00	22.902	31.501	25.109	35.266	5.617	15.116	2.026
12/11/09	8:00	22.936	31.524	25.131	35.300	5.658	15.125	2.027
12/11/09	12:00	23.008	31.549	25.151	35.327	5.615	15.138	2.056
12/11/09	16:00	23.073	31.547	25.105	35.356	5.638	15.111	2.079
12/11/09	20:00	23.048	31.574	25.129	35.337	5.584	15.129	2.085

TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
12/12/09	0:00	23.083	31.585	25.114	35.378	5.625	15.122	2.106
12/12/09	4:00	23.107	31.597	25.112	35.352	5.613	15.127	2.129
12/12/09	8:00	23.140	31.595	25.073	35.390	5.608	15.098	2.116
12/12/09	12:00	23.185	31.591	25.031	35.364	5.580	15.073	2.132
12/12/09	16:00	23.212	31.577	24.966	35.373	5.561	15.031	2.129
12/12/09	20:00	23.167	31.610	24.997	35.340	5.584	15.053	2.125
12/13/09	0:00	23.140	31.637	25.024	35.323	5.594	15.079	2.124
12/13/09	4:00	23.098	31.677	25.085	35.300	5.583	15.125	2.104
12/13/09	8:00	23.098	31.717	25.148	35.296	5.635	15.166	2.098
12/13/09	12:00	23.157	31.745	25.187	35.325	5.596	15.187	2.118
12/13/09	16:00	23.222	31.719	25.109	35.335	5.586	15.134	2.176
12/13/09	20:00	23.237	31.724	25.080	35.292	5.590	15.120	2.179
12/14/09	0:00	23.269	31.722	25.046	35.312	5.627	15.098	2.159
12/14/09	4:00	23.220	31.755	25.078	35.239	5.604	15.121	2.114
12/14/09	8:00	23.083	31.879	25.312	35.232	5.612	15.285	2.103
12/14/09	12:00	23.053	31.984	25.516	35.261	5.626	15.404	2.084
12/14/09	16:00	23.120	32.032	25.599	35.311	5.647	15.454	2.098
12/14/09	20:00	23.177	32.084	25.682	35.376	5.633	15.501	2.117
12/15/09	0:00	23.232	32.143	25.775	35.425	5.649	15.556	2.113
12/15/09	4:00	23.291	32.188	25.845	35.461	5.684	15.595	2.137
12/15/09	8:00	23.349	32.227	25.889	35.540	5.676	15.627	2.142
12/15/09	12:00	23.433	32.269	25.947	35.611	5.678	15.662	2.153
12/15/09	16:00	23.532	32.263	25.901	35.677	5.637	15.629	2.217
12/15/09	20:00	23.542	32.284	25.904	35.712	5.653	15.636	2.239
12/16/09	0:00	23.592	32.293	25.884	35.754	5.606	15.623	2.270
12/16/09	4:00	23.631	32.286	25.833	35.781	5.630	15.594	2.338
12/16/09	8:00	23.679	32.278	25.777	35.787	5.649	15.564	2.313
12/16/09	12:00	23.696	32.297	25.777	35.791	5.657	15.571	2.318
12/16/09	16:00	23.738	32.284	25.716	35.797	5.630	15.529	2.326
12/16/09	20:00	23.674	32.316	25.740	35.778	5.612	15.558	2.321
12/17/09	0:00	23.693	32.316	25.706	35.785	5.645	15.536	2.343
12/17/09	4:00	23.686	32.322	25.691	35.768	5.632	15.532	2.363
12/17/09	8:00	23.669	32.339	25.689	35.741	5.622	15.542	2.349
12/17/09	12:00	23.676	32.362	25.713	35.699	5.647	15.558	2.353
12/17/09	16:00	23.698	32.364	25.691	35.722	5.620	15.547	2.346
12/17/09	20:00	23.641	32.406	25.753	35.704	5.603	15.595	2.303
12/18/09	0:00	23.639	32.425	25.772	35.703	5.583	15.608	2.313
12/18/09	4:00	23.654	32.435	25.777	35.706	5.620	15.612	2.342
12/18/09	8:00	23.651	32.463	25.811	35.705	5.613	15.636	2.340
12/18/09	12:00	23.691	32.473	25.821	35.711	5.644	15.640	2.365
12/18/09	16:00	23.713	32.484	25.816	35.706	5.630	15.638	2.376
12/18/09	20:00	23.681	32.515	25.865	35.689	5.616	15.673	2.347
12/19/09	0:00	23.654	32.555	25.926	35.718	5.632	15.701	2.319
12/19/09	4:00	23.689	32.578	25.962	35.742	5.632	15.729	2.320
12/19/09	8:00	23.664	32.624	26.038	35.744	5.628	15.783	2.319
12/19/09	12:00	23.689	32.660	26.094	35.739	5.646	15.815	2.330
12/19/09	16:00	23.758	32.660	26.075	35.798	5.597	15.796	2.372
12/19/09	20:00	23.768	32.685	26.106	35.819	5.632	15.819	2.365

TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
12/20/09	0:00	23.820	32.683	26.075	35.813	5.629	15.804	2.393
12/20/09	4:00	23.833	32.691	26.067	35.849	5.619	15.802	2.393
12/20/09	8:00	23.868	32.681	26.020	35.863	5.615	15.765	2.418
12/20/09	12:00	23.848	32.717	26.067	35.851	5.582	15.807	2.400
12/20/09	16:00	23.863	32.740	26.089	35.854	5.642	15.824	2.398
12/20/09	20:00	23.808	32.782	26.172	35.876	5.625	15.867	2.378
12/21/09	0:00	23.806	32.807	26.211	35.895	5.609	15.882	2.377
12/21/09	4:00	23.815	32.817	26.220	35.919	5.615	15.882	2.389
12/21/09	8:00	23.810	32.817	26.203	35.932	5.576	15.861	2.420
12/21/09	12:00	23.875	32.817	26.191	35.923	5.636	15.858	2.426
12/21/09	16:00	23.895	32.811	26.152	35.917	5.629	15.826	2.454
12/21/09	20:00	23.856	32.799	26.113	35.916	5.609	15.772	2.447
12/22/09	0:00	23.786	32.809	26.133	35.946	5.594	15.765	2.448
12/22/09	4:00	23.752	32.814	26.128	35.938	5.613	15.752	2.427
12/22/09	8:00	23.710	32.841	26.174	35.930	5.582	15.781	2.378
12/22/09	12:00	23.697	32.875	26.233	35.904	5.609	15.819	2.389
12/22/09	16:00	23.722	32.877	26.228	35.948	5.643	15.815	2.429
12/22/09	20:00	23.697	32.908	26.281	35.942	5.619	15.854	2.406
12/23/09	0:00	23.729	32.912	26.284	35.971	5.615	15.856	2.425
12/23/09	4:00	23.774	32.897	26.243	35.955	5.615	15.826	2.493
12/23/09	8:00	23.762	32.891	26.225	35.947	5.601	15.785	2.425
12/23/09	12:00	23.690	32.874	26.211	35.951	5.466	15.609	2.316
12/23/09	16:00	23.616	32.818	26.125	35.981	5.443	15.439	2.240
12/23/09	20:00	23.415	32.815	26.150	35.952	5.410	15.295	2.124
12/24/09	0:00	23.259	32.801	26.150	35.928	5.429	15.174	2.055
12/24/09	4:00	23.130	32.780	26.145	35.966	5.427	15.089	2.040
12/24/09	8:00	23.051	32.773	26.160	35.971	5.547	15.064	1.995
12/24/09	12:00	22.989	32.749	26.135	35.984	5.522	15.051	1.974
12/24/09	16:00	22.984	32.690	26.028	36.008	5.563	15.024	1.983
12/24/09	20:00	22.917	32.669	25.982	35.983	5.575	15.053	1.979
12/25/09	0:00	22.952	32.579	25.804	36.002	5.503	14.970	1.996
12/25/09	4:00	22.883	32.545	25.728	35.925	5.534	14.970	1.986
12/25/09	8:00	22.821	32.522	25.696	35.893	5.520	14.984	1.988
12/25/09	12:00	22.791	32.503	25.670	35.899	5.524	15.003	2.005
12/25/09	16:00	22.769	32.484	25.633	35.838	5.476	15.012	1.965
12/25/09	20:00	22.719	32.490	25.657	35.848	5.489	15.066	1.933
12/26/09	0:00	22.702	32.499	25.684	35.821	5.526	15.120	1.897
12/26/09	4:00	22.692	32.520	25.738	35.787	5.586	15.185	1.895
12/26/09	8:00	22.707	32.545	25.801	35.823	5.559	15.258	1.886
12/26/09	12:00	22.714	32.576	25.877	35.842	5.542	15.336	1.893
12/26/09	16:00	22.741	32.603	25.938	35.857	5.554	15.404	1.917
12/26/09	20:00	22.783	32.618	25.977	35.909	5.569	15.453	1.887
12/27/09	0:00	22.855	32.612	25.967	35.953	5.633	15.473	1.911
12/27/09	4:00	22.910	32.605	25.948	35.982	5.579	15.490	1.911
12/27/09	8:00	22.892	32.643	26.018	35.990	5.560	15.560	1.907
12/27/09	12:00	22.910	32.689	26.111	36.031	5.622	15.640	1.905
12/27/09	16:00	22.999	32.685	26.101	36.088	5.604	15.650	1.898
12/27/09	20:00	23.036	32.700	26.125	36.134	5.649	15.687	1.931

TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
12/28/09	0:00	23.078	32.706	26.130	36.146	5.653	15.705	1.924
12/28/09	4:00	23.128	32.702	26.118	36.218	5.643	15.715	1.949
12/28/09	8:00	23.148	32.706	26.113	36.242	5.647	15.731	1.943
12/28/09	12:00	23.158	32.740	26.179	36.267	5.629	15.789	1.981
12/28/09	16:00	23.190	32.750	26.196	36.278	5.643	15.806	1.976
12/28/09	20:00	23.178	32.784	26.262	36.328	5.666	15.858	2.002
12/29/09	0:00	23.245	32.773	26.245	36.362	5.655	15.852	2.031
12/29/09	4:00	23.267	32.778	26.240	36.419	5.641	15.867	2.029
12/29/09	8:00	23.341	32.759	26.194	36.449	5.655	15.845	2.074
12/29/09	12:00	23.386	32.752	26.170	36.471	5.609	15.839	2.098
12/29/09	16:00	23.460	32.696	26.042	36.491	5.653	15.776	2.117
12/29/09	20:00	23.455	32.677	25.981	36.479	5.609	15.746	2.123
12/30/09	0:00	23.456	32.660	25.935	36.460	5.653	15.728	2.129
12/30/09	4:00	23.460	32.631	25.865	36.433	5.609	15.696	2.114
12/30/09	8:00	23.445	32.610	25.808	36.383	5.581	15.670	2.119
12/30/09	12:00	23.431	32.608	25.801	36.351	5.610	15.674	2.144
12/30/09	16:00	23.425	32.593	25.765	36.348	5.585	15.659	2.138
12/30/09	20:00	23.331	32.629	25.830	36.271	5.607	15.709	2.086
12/31/09	0:00	23.296	32.683	25.943	36.248	5.609	15.798	2.066
12/31/09	4:00	23.269	32.731	26.048	36.279	5.616	15.867	2.066
12/31/09	8:00	23.301	32.759	26.104	36.260	5.640	15.912	2.101
12/31/09	12:00	23.321	32.826	26.248	36.287	5.576	15.999	2.098
12/31/09	16:00	23.410	32.828	26.255	36.358	5.638	16.005	2.102
12/31/09	20:00	23.410	32.847	26.289	36.392	5.636	16.023	2.114
1/1/10	0:00	23.472	32.868	26.326	36.422	5.605	16.051	2.127
1/1/10	4:00	23.512	32.876	26.335	36.421	5.636	16.068	2.122
1/1/10	8:00	23.554	32.887	26.350	36.475	5.663	16.077	2.142
1/1/10	12:00	23.567	32.920	26.406	36.488	5.667	16.122	2.141
1/1/10	16:00	23.626	32.918	26.389	36.504	5.661	16.111	2.170
1/1/10	20:00	23.624	32.935	26.421	36.545	5.657	16.127	2.150
1/2/10	0:00	23.631	32.964	26.467	36.576	5.647	16.164	2.096
1/2/10	4:00	23.666	32.967	26.460	36.613	5.680	16.164	2.094
1/2/10	8:00	23.723	32.950	26.418	36.635	5.663	16.146	2.133
1/2/10	12:00	23.763	32.958	26.411	36.655	5.669	16.142	2.153
1/2/10	16:00	23.820	32.925	26.323	36.634	5.659	16.094	2.274
1/2/10	20:00	23.778	32.943	26.340	36.640	5.654	16.118	2.283
1/3/10	0:00	23.768	32.959	26.357	36.609	5.642	16.133	2.285
1/3/10	4:00	23.788	32.959	26.347	36.652	5.611	16.135	2.319
1/3/10	8:00	23.768	32.982	26.382	36.631	5.626	16.163	2.305
1/3/10	12:00	23.758	33.013	26.445	36.612	5.611	16.203	2.264
1/3/10	16:00	23.807	33.013	26.433	36.640	5.644	16.198	2.295
1/3/10	20:00	23.768	33.040	26.484	36.643	5.644	16.237	2.260
1/4/10	0:00	23.800	33.057	26.508	36.663	5.652	16.248	2.247
1/4/10	4:00	23.830	33.067	26.518	36.671	5.648	16.259	2.254
1/4/10	8:00	23.830	33.082	26.538	36.650	5.623	16.278	2.243
1/4/10	12:00	23.874	33.099	26.564	36.665	5.659	16.298	2.227
1/4/10	16:00	23.944	33.076	26.506	36.713	5.646	16.259	2.310
1/4/10	20:00	23.922	33.086	26.508	36.714	5.634	16.271	2.334

TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
1/5/10	0:00	23.934	33.095	26.516	36.721	5.601	16.280	2.352
1/5/10	4:00	23.934	33.109	26.528	36.715	5.642	16.293	2.361
1/5/10	8:00	23.919	33.120	26.542	36.689	5.642	16.307	2.366
1/5/10	12:00	23.971	33.126	26.547	36.698	5.636	16.311	2.377
1/5/10	16:00	24.031	33.101	26.489	36.734	5.580	16.270	2.464
1/5/10	20:00	23.984	33.106	26.476	36.689	5.665	16.272	2.440
1/6/10	0:00	24.001	33.109	26.462	36.710	5.661	16.268	2.452
1/6/10	4:00	24.011	33.097	26.423	36.697	5.642	16.245	2.441
1/6/10	8:00	24.023	33.095	26.394	36.680	5.644	16.241	2.449
1/6/10	12:00	24.004	33.108	26.406	36.661	5.665	16.254	2.459
1/6/10	16:00	24.023	33.099	26.379	36.645	5.673	16.239	2.438
1/6/10	20:00	23.954	33.156	26.479	36.616	5.659	16.311	2.391
1/7/10	0:00	23.929	33.194	26.560	36.610	5.674	16.363	2.383
1/7/10	4:00	23.961	33.192	26.547	36.638	5.672	16.352	2.415
1/7/10	8:00	23.981	33.221	26.596	36.593	5.663	16.389	2.388
1/7/10	12:00	23.966	33.278	26.706	36.631	5.689	16.456	2.414
1/7/10	16:00	24.018	33.286	26.718	36.664	5.707	16.466	2.413
1/7/10	20:00	24.021	33.315	26.774	36.681	5.675	16.497	2.410
1/8/10	0:00	24.038	33.344	26.828	36.708	5.699	16.529	2.413
1/8/10	4:00	24.068	33.362	26.852	36.735	5.708	16.549	2.404
1/8/10	8:00	24.120	33.370	26.859	36.744	5.697	16.553	2.403
1/8/10	12:00	24.135	33.402	26.910	36.796	5.707	16.588	2.415
1/8/10	16:00	24.222	33.385	26.859	36.802	5.701	16.557	2.482
1/8/10	20:00	24.212	33.407	26.886	36.846	5.720	16.586	2.477
1/9/10	0:00	24.219	33.423	26.903	36.861	5.699	16.601	2.470
1/9/10	4:00	24.234	33.435	26.920	36.851	5.703	16.613	2.467
1/9/10	8:00	24.244	33.452	26.938	36.897	5.693	16.624	2.464
1/9/10	12:00	24.249	33.488	26.999	36.907	5.699	16.665	2.453
1/9/10	16:00	24.329	33.475	26.957	36.916	5.697	16.641	2.512
1/9/10	20:00	24.299	33.488	26.962	36.947	5.681	16.655	2.529
1/10/10	0:00	24.329	33.486	26.947	36.935	5.695	16.648	2.563
1/10/10	4:00	24.358	33.481	26.923	36.976	5.703	16.633	2.581
1/10/10	8:00	24.398	33.456	26.856	36.984	5.672	16.600	2.597
1/10/10	12:00	24.438	33.439	26.811	36.954	5.584	16.574	2.603
1/10/10	16:00	24.443	33.416	26.740	36.951	5.602	16.536	2.579
1/10/10	20:00	24.391	33.441	26.772	36.918	5.654	16.566	2.584
1/11/10	0:00	24.376	33.452	26.779	36.904	5.639	16.575	2.616
1/11/10	4:00	24.351	33.475	26.806	36.882	5.670	16.603	2.595
1/11/10	8:00	24.304	33.521	26.889	36.835	5.648	16.659	2.551
1/11/10	12:00	24.281	33.580	27.006	36.871	5.615	16.732	2.555
1/11/10	16:00	24.326	33.590	27.027	36.905	5.631	16.735	2.573
1/11/10	20:00	24.321	33.628	27.096	36.918	5.675	16.776	2.577
1/12/10	0:00	24.361	33.647	27.127	36.929	5.656	16.789	2.569
1/12/10	4:00	24.381	33.664	27.144	36.938	5.681	16.810	2.601
1/12/10	8:00	24.438	33.660	27.127	36.967	5.695	16.804	2.630
1/12/10	12:00	24.497	33.653	27.103	37.031	5.697	16.787	2.656
1/12/10	16:00	24.579	33.620	27.020	37.008	5.664	16.737	2.670
1/12/10	20:00	24.574	33.607	26.974	36.995	5.697	16.717	2.674



TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
1/13/10	0:00	24.577	33.597	26.930	37.019	5.670	16.702	2.684
1/13/10	4:00	24.570	33.588	26.896	37.002	5.650	16.687	2.722
1/13/10	8:00	24.545	33.588	26.876	36.975	5.670	16.681	2.711
1/13/10	12:00	24.542	33.601	26.886	36.957	5.641	16.693	2.720
1/13/10	16:00	24.585	33.561	26.796	36.959	5.557	16.642	2.708
1/13/10	20:00	24.510	33.595	26.854	36.910	5.526	16.676	2.660
1/14/10	0:00	24.487	33.611	26.881	36.898	5.631	16.689	2.661
1/14/10	4:00	24.468	33.622	26.901	36.890	5.554	16.704	2.664
1/14/10	8:00	24.428	33.662	26.976	36.867	5.592	16.756	2.637
1/14/10	12:00	24.403	33.714	27.084	36.836	5.589	16.815	2.637
1/14/10	16:00	24.453	33.725	27.103	36.885	5.557	16.821	2.632
1/14/10	20:00	24.415	33.758	27.183	36.873	5.594	16.826	2.627
1/15/10	0:00	24.415	33.779	27.233	36.935	5.608	16.852	2.641
1/15/10	4:00	24.413	33.802	27.284	36.960	5.633	16.882	2.634
1/15/10	8:00	24.456	33.798	27.279	37.009	5.629	16.873	2.652
1/15/10	12:00	24.433	33.844	27.364	37.033	5.604	16.916	2.642
1/15/10	16:00	24.495	33.819	27.311	37.059	5.559	16.871	2.680
1/15/10	20:00	24.500	33.821	27.305	37.049	5.614	16.875	2.686
1/16/10	0:00	24.511	33.821	27.298	37.068	5.585	16.875	2.697
1/16/10	4:00	24.511	33.823	27.291	37.103	5.656	16.875	2.686
1/16/10	8:00	24.530	33.804	27.249	37.096	5.608	16.851	2.712
1/16/10	12:00	24.515	33.832	27.286	37.125	5.614	16.880	2.694
1/16/10	16:00	24.575	33.779	27.181	37.111	5.627	16.823	2.723
1/16/10	20:00	24.528	33.792	27.188	37.091	5.627	16.830	2.704
1/17/10	0:00	24.523	33.779	27.152	37.111	5.600	16.808	2.712
1/17/10	4:00	24.503	33.784	27.157	37.072	5.589	16.814	2.725
1/17/10	8:00	24.498	33.775	27.135	37.092	5.649	16.802	2.751
1/17/10	12:00	24.463	33.803	27.174	37.042	5.577	16.834	2.733
1/17/10	16:00	24.473	33.792	27.150	37.061	5.608	16.804	2.762
1/17/10	20:00	24.382	33.834	27.220	37.043	5.590	16.836	2.695
1/18/10	0:00	24.357	33.849	27.252	37.031	5.589	16.845	2.682
1/18/10	4:00	24.342	33.853	27.262	37.071	5.602	16.834	2.682
1/18/10	8:00	24.308	33.866	27.281	37.069	5.563	16.827	2.671
1/18/10	12:00	24.290	33.878	27.308	37.089	5.639	16.830	2.664
1/18/10	16:00	24.315	33.859	27.266	37.095	5.662	16.786	2.692
1/18/10	20:00	24.268	33.880	27.303	37.097	5.672	16.793	2.675
1/19/10	0:00	24.254	33.891	27.320	37.110	5.721	16.795	2.672
1/19/10	4:00	24.256	33.878	27.296	37.100	5.721	16.780	2.690
1/19/10	8:00	24.244	33.872	27.281	37.116	5.715	16.773	2.709
1/19/10	12:00	24.224	33.874	27.276	37.113	5.693	16.773	2.720
1/19/10	16:00	24.261	33.834	27.198	37.123	5.717	16.717	2.740
1/19/10	20:00	24.202	33.826	27.172	37.134	5.705	16.687	2.731
1/20/10	0:00	24.147	33.798	27.118	37.115	5.684	16.622	2.714
1/20/10	4:00	23.817	33.716	27.003	37.140	5.519	16.252	2.442
1/20/10	8:00	23.449	33.649	26.943	37.055	5.295	15.929	2.325
1/20/10	12:00	23.168	33.599	26.928	37.014	5.350	15.704	2.186
1/20/10	16:00	22.945	33.498	26.819	37.041	5.369	15.437	2.104
1/20/10	20:00	22.615	33.414	26.733	37.021	5.381	15.296	1.989

TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
1/21/10	0:00	22.397	33.290	26.541	36.929	5.322	15.207	1.934
1/21/10	4:00	22.198	33.181	26.390	36.916	5.365	15.142	1.849
1/21/10	8:00	22.067	33.078	26.251	36.876	5.391	15.098	1.725
1/21/10	12:00	21.942	32.980	26.107	36.891	5.488	15.053	1.663
1/21/10	16:00	21.890	32.860	25.886	36.887	5.515	15.023	1.509
1/21/10	20:00	21.600	32.801	25.760	36.862	5.451	14.917	1.192
1/22/10	0:00	21.385	32.700	25.551	36.834	5.445	14.531	1.054
1/22/10	4:00	21.295	32.560	25.267	36.854	5.449	14.412	1.025
1/22/10	8:00	21.201	32.442	25.032	36.865	5.552	14.303	0.979
1/22/10	12:00	21.109	32.322	24.799	36.855	5.484	14.286	0.952
1/22/10	16:00	21.126	32.152	24.464	36.843	5.515	14.163	0.859
1/22/10	20:00	20.749	32.033	24.114	36.787	5.241	13.816	0.496
1/23/10	0:00	20.210	31.884	23.075	36.717	4.849	13.326	0.307
1/23/10	4:00	19.656	31.680	21.664	36.670	3.775	12.720	0.133
1/23/10	8:00	19.043	31.370	18.920	36.621	1.975	11.875	-0.007
1/23/10	12:00	18.457	31.025	16.992	36.532	1.943	11.054	-0.115
1/23/10	16:00	17.966	30.549	15.825	36.420	2.129	10.393	-0.251
1/23/10	20:00	17.469	30.082	15.283	36.261	2.936	9.904	-0.150
1/24/10	0:00	17.182	29.531	15.015	36.163	3.747	9.519	-0.078
1/24/10	4:00	16.972	29.033	14.712	36.012	4.175	9.264	-0.074
1/24/10	8:00	16.762	28.624	14.491	35.848	4.497	9.096	-0.073
1/24/10	12:00	16.663	28.204	14.310	35.637	4.687	8.921	-0.053
1/24/10	16:00	16.568	27.755	14.124	35.465	4.880	8.836	-0.058
1/24/10	20:00	16.447	27.241	14.013	35.251	5.128	8.815	-0.017
1/25/10	0:00	16.378	26.684	13.948	35.016	5.287	8.776	0.035
1/25/10	4:00	16.317	26.239	13.923	34.793	5.346	8.769	0.092
1/25/10	8:00	16.263	25.876	13.935	34.582	5.416	8.800	0.133
1/25/10	12:00	16.209	25.576	13.984	34.390	5.439	8.886	0.175
1/25/10	16:00	16.235	25.255	13.994	34.218	5.470	8.930	0.242
1/25/10	20:00	16.255	25.003	14.045	34.058	5.515	9.008	0.266
1/26/10	0:00	16.248	24.784	14.091	33.882	5.490	9.086	0.275
1/26/10	4:00	16.258	24.583	14.128	33.741	5.482	9.138	0.315
1/26/10	8:00	16.301	24.425	14.179	33.587	5.482	9.205	0.358
1/26/10	12:00	16.378	24.300	14.225	33.450	5.531	9.287	0.403
1/26/10	16:00	16.502	24.096	14.203	33.291	5.509	9.259	0.423
1/26/10	20:00	16.500	23.972	14.217	33.147	5.495	9.285	0.418
1/27/10	0:00	16.547	23.842	14.225	32.961	5.525	9.283	0.434
1/27/10	4:00	16.573	23.722	14.232	32.815	5.492	9.290	0.450
1/27/10	8:00	16.605	23.609	14.237	32.600	5.502	9.287	0.479
1/27/10	12:00	16.607	23.557	14.273	32.442	5.517	9.333	0.503
1/27/10	16:00	16.635	23.479	14.297	32.250	5.540	9.348	0.505
1/27/10	20:00	16.548	23.489	14.380	32.039	5.530	9.417	0.495
1/28/10	0:00	16.605	23.452	14.424	31.911	5.528	9.452	0.529
1/28/10	4:00	16.640	23.418	14.480	31.748	5.488	9.489	0.535
1/28/10	8:00	16.687	23.376	14.521	31.603	5.538	9.510	0.554
1/28/10	12:00	16.762	23.353	14.562	31.468	5.569	9.545	0.599
1/28/10	16:00	16.861	23.231	14.552	31.314	5.557	9.480	0.579
1/28/10	20:00	16.866	23.212	14.586	31.176	5.569	9.508	0.576

TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
1/29/10	0:00	16.893	23.175	14.613	31.029	5.565	9.506	0.588
1/29/10	4:00	16.926	23.118	14.627	30.869	5.567	9.498	0.600
1/29/10	8:00	16.946	23.061	14.634	30.687	5.555	9.480	0.608
1/29/10	12:00	16.968	23.044	14.658	30.508	5.536	9.491	0.633
1/29/10	16:00	17.025	22.965	14.656	30.347	5.535	9.439	0.622
1/29/10	20:00	16.990	22.960	14.685	30.226	5.523	9.456	0.606
1/30/10	0:00	16.995	22.950	14.714	30.090	5.502	9.465	0.614
1/30/10	4:00	16.985	22.946	14.750	29.951	5.537	9.484	0.631
1/30/10	8:00	16.987	22.950	14.794	29.818	5.555	9.504	0.626
1/30/10	12:00	17.035	22.979	14.836	29.705	5.552	9.545	0.722
1/30/10	16:00	17.106	22.929	14.850	29.616	5.497	9.506	0.669
1/30/10	20:00	17.050	22.958	14.896	29.465	5.548	9.549	0.665
1/31/10	0:00	17.055	22.975	14.943	29.368	5.533	9.569	0.679
1/31/10	4:00	17.087	22.984	14.974	29.293	5.503	9.582	0.686
1/31/10	8:00	17.104	23.005	15.018	29.230	5.517	9.604	0.697
1/31/10	12:00	17.154	23.044	15.069	29.155	5.558	9.645	0.705
1/31/10	16:00	17.243	23.017	15.082	29.106	5.544	9.608	0.698
1/31/10	20:00	17.216	23.030	15.111	29.038	5.556	9.586	0.702
2/1/10	0:00	17.231	23.034	15.135	28.977	5.521	9.560	0.706
2/1/10	4:00	17.273	23.024	15.150	28.894	5.507	9.541	0.701
2/1/10	8:00	17.292	23.021	15.167	28.826	5.488	9.537	0.706
2/1/10	12:00	17.302	23.040	15.198	28.756	5.563	9.554	0.711
2/1/10	16:00	17.330	23.026	15.210	28.712	5.513	9.534	0.713
2/1/10	20:00	17.292	23.074	15.252	28.637	5.517	9.580	0.724
2/2/10	0:00	17.310	23.109	15.288	28.585	5.515	9.610	0.730
2/2/10	4:00	17.302	23.149	15.327	28.540	5.540	9.632	0.710
2/2/10	8:00	17.307	23.217	15.381	28.460	5.554	9.703	0.730
2/2/10	12:00	17.350	23.271	15.427	28.449	5.587	9.746	0.760
2/2/10	16:00	17.449	23.267	15.447	28.455	5.546	9.729	0.755
2/2/10	20:00	17.431	23.316	15.493	28.430	5.583	9.761	0.764
2/3/10	0:00	17.446	23.353	15.532	28.387	5.570	9.785	0.766
2/3/10	4:00	17.508	23.361	15.564	28.373	5.602	9.775	0.771
2/3/10	8:00	17.501	23.403	15.625	28.370	5.604	9.809	0.783
2/3/10	12:00	17.617	23.405	15.647	28.374	5.616	9.801	0.773
2/3/10	16:00	17.674	23.420	15.690	28.354	5.625	9.800	0.771
2/3/10	20:00	17.625	23.456	15.756	28.326	5.604	9.811	0.777
2/4/10	0:00	17.674	23.475	15.803	28.316	5.561	9.824	0.770
2/4/10	4:00	17.682	23.510	15.854	28.292	5.558	9.842	0.779
2/4/10	8:00	17.724	23.508	15.874	28.282	5.606	9.820	0.773
2/4/10	12:00	17.744	23.529	15.915	28.271	5.620	9.827	0.773
2/4/10	16:00	17.799	23.500	15.944	28.256	5.620	9.777	0.761
2/4/10	20:00	17.753	23.538	16.032	28.220	5.561	9.790	0.763
2/5/10	0:00	17.753	23.554	16.126	28.195	5.501	9.787	0.770
2/5/10	4:00	17.769	23.565	16.193	28.147	5.488	9.779	0.771
2/5/10	8:00	17.771	23.580	16.239	28.153	5.500	9.777	0.774
2/5/10	12:00	17.758	23.626	16.316	28.122	5.456	9.811	0.782
2/5/10	16:00	17.771	23.655	16.387	28.106	5.433	9.828	0.785
2/5/10	20:00	17.726	23.743	16.514	28.082	5.511	9.894	0.802

TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
2/6/10	0:00	17.746	23.800	16.604	28.070	5.542	9.926	0.808
2/6/10	4:00	17.791	23.836	16.670	28.109	5.536	9.948	0.812
2/6/10	8:00	17.808	23.888	16.752	28.110	5.581	9.983	0.818
2/6/10	12:00	17.858	23.928	16.821	28.105	5.589	10.015	0.820
2/6/10	16:00	17.935	23.930	16.841	28.148	5.530	9.998	0.811
2/6/10	20:00	17.947	23.951	16.891	28.159	5.575	9.995	0.811
2/7/10	0:00	17.974	23.964	16.925	28.142	5.550	9.986	0.808
2/7/10	4:00	17.984	23.968	16.950	28.189	5.515	9.969	0.807
2/7/10	8:00	18.004	23.991	16.989	28.145	5.542	9.976	0.811
2/7/10	12:00	18.041	24.010	17.023	28.181	5.557	9.997	0.810
2/7/10	16:00	18.083	23.993	17.018	28.190	5.530	9.967	0.794
2/7/10	20:00	18.019	24.027	17.067	28.173	5.635	9.948	0.790
2/8/10	0:00	18.016	24.033	17.099	28.182	5.604	9.898	0.795
2/8/10	4:00	18.002	24.054	17.143	28.171	5.585	9.887	0.801
2/8/10	8:00	17.977	24.100	17.216	28.158	5.625	9.932	0.811
2/8/10	12:00	17.940	24.174	17.318	28.133	5.606	10.019	0.828
2/8/10	16:00	17.982	24.197	17.360	28.186	5.606	10.047	0.828
2/8/10	20:00	17.985	24.234	17.411	28.196	5.606	10.088	0.831
2/9/10	0:00	18.046	24.222	17.411	28.217	5.608	10.075	0.825
2/9/10	4:00	18.109	24.211	17.409	28.225	5.612	10.058	0.819
2/9/10	8:00	18.094	24.262	17.469	28.220	5.610	10.106	0.827
2/9/10	12:00	18.121	24.323	17.537	28.194	5.598	10.156	0.834
2/9/10	16:00	18.138	24.379	17.606	28.235	5.596	10.214	0.838
2/9/10	20:00	18.138	24.428	17.664	28.252	5.623	10.260	0.846
2/10/10	0:00	18.143	24.478	17.728	28.271	5.641	10.294	0.852
2/10/10	4:00	18.215	24.493	17.754	28.272	5.639	10.314	0.850
2/10/10	8:00	18.255	24.516	17.786	28.294	5.643	10.331	0.849
2/10/10	12:00	18.317	24.554	17.830	28.335	5.623	10.363	0.851
2/10/10	16:00	18.418	24.522	17.800	28.374	5.633	10.320	0.833
2/10/10	20:00	18.386	24.547	17.822	28.373	5.637	10.331	0.834
2/11/10	0:00	18.399	24.572	17.847	28.351	5.611	10.320	0.835
2/11/10	4:00	18.444	24.568	17.839	28.360	5.637	10.311	0.831
2/11/10	8:00	18.449	24.598	17.861	28.382	5.594	10.324	0.833
2/11/10	12:00	18.466	24.627	17.886	28.381	5.610	10.340	0.836
2/11/10	16:00	18.486	24.614	17.873	28.363	5.581	10.289	0.828
2/11/10	20:00	18.448	24.690	17.942	28.362	5.604	10.363	0.842
2/12/10	0:00	18.470	24.709	17.968	28.352	5.569	10.361	0.842
2/12/10	4:00	18.486	24.730	17.990	28.390	5.620	10.359	0.844
2/12/10	8:00	18.481	24.774	18.034	28.383	5.604	10.394	0.850
2/12/10	12:00	18.503	24.837	18.095	28.357	5.574	10.445	0.860
2/12/10	16:00	18.575	24.826	18.092	28.376	5.588	10.422	0.846
2/12/10	20:00	18.567	24.868	18.134	28.413	5.607	10.431	0.852
2/13/10	0:00	18.582	24.898	18.158	28.422	5.584	10.428	0.855
2/13/10	4:00	18.617	24.896	18.158	28.404	5.588	10.405	0.853
2/13/10	8:00	18.642	24.910	18.165	28.416	5.578	10.400	0.851
2/13/10	12:00	18.666	24.946	18.192	28.450	5.602	10.422	0.854
2/13/10	16:00	18.669	24.948	18.190	28.455	5.573	10.396	0.841
2/13/10	20:00	18.644	25.017	18.248	28.415	5.578	10.428	0.855

TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
2/14/10	0:00	18.632	25.074	18.304	28.448	5.607	10.452	0.867
2/14/10	4:00	18.609	25.145	18.380	28.463	5.637	10.513	0.877
2/14/10	8:00	18.632	25.156	18.404	28.503	5.639	10.511	0.872
2/14/10	12:00	18.729	25.166	18.409	28.494	5.598	10.525	0.873
2/14/10	16:00	18.741	25.211	18.448	28.525	5.615	10.564	0.880
2/14/10	20:00	18.739	25.257	18.499	28.550	5.615	10.612	0.885
2/15/10	0:00	18.808	25.252	18.499	28.587	5.640	10.604	0.877
2/15/10	4:00	18.857	25.252	18.496	28.600	5.615	10.595	0.871
2/15/10	8:00	18.843	25.307	18.540	28.587	5.646	10.642	0.877
2/15/10	12:00	18.872	25.364	18.601	28.581	5.635	10.699	0.882
2/15/10	16:00	18.927	25.372	18.618	28.641	5.615	10.707	0.879
2/15/10	20:00	18.922	25.406	18.657	28.657	5.662	10.738	0.882
2/16/10	0:00	18.959	25.435	18.689	28.683	5.621	10.753	0.889
2/16/10	4:00	18.967	25.471	18.732	28.674	5.623	10.773	0.893
2/16/10	8:00	19.001	25.519	18.788	28.710	5.627	10.827	0.902
2/16/10	12:00	19.044	25.565	18.849	28.744	5.660	10.872	0.904
2/16/10	16:00	19.123	25.555	18.851	28.783	5.633	10.853	0.893
2/16/10	20:00	19.056	25.580	18.881	28.807	5.644	10.608	0.891
2/17/10	0:00	19.002	25.607	18.912	28.825	5.626	10.458	0.893
2/17/10	4:00	18.995	25.628	18.942	28.847	5.638	10.459	0.897
2/17/10	8:00	18.950	25.660	18.976	28.854	5.627	10.517	0.903
2/17/10	12:00	19.042	25.702	19.022	28.844	5.644	10.656	0.903
2/17/10	16:00	19.126	25.693	19.024	28.886	5.630	10.684	0.886
2/17/10	20:00	19.077	25.735	19.066	28.898	5.628	10.725	0.889
2/18/10	0:00	19.074	25.756	19.095	28.920	5.646	10.729	0.892
2/18/10	4:00	19.121	25.779	19.126	28.905	5.615	10.766	0.897
2/18/10	8:00	19.136	25.811	19.160	28.942	5.648	10.801	0.902
2/18/10	12:00	19.191	25.836	19.192	28.960	5.658	10.829	0.900
2/18/10	16:00	19.295	25.802	19.158	28.979	5.636	10.768	0.867
2/18/10	20:00	19.206	25.853	19.163	28.967	5.582	10.668	0.867
2/19/10	0:00	19.176	25.888	19.165	28.985	5.636	10.621	0.878
2/19/10	4:00	19.206	25.893	19.187	28.996	5.599	10.593	0.867
2/19/10	8:00	19.223	25.901	19.194	29.002	5.640	10.586	0.861
2/19/10	12:00	19.228	25.916	19.214	29.013	5.609	10.621	0.864
2/19/10	16:00	19.260	25.924	19.221	28.992	5.576	10.647	0.868
2/19/10	20:00	19.206	25.987	19.289	29.007	5.623	10.725	0.882
2/20/10	0:00	19.215	26.023	19.340	29.025	5.626	10.772	0.889
2/20/10	4:00	19.237	26.058	19.389	29.050	5.667	10.812	0.899
2/20/10	8:00	19.235	26.113	19.450	29.042	5.632	10.876	0.908
2/20/10	12:00	19.302	26.111	19.464	29.066	5.654	10.877	0.905
2/20/10	16:00	19.357	26.113	19.467	29.108	5.658	10.879	0.900
2/20/10	20:00	19.366	26.140	19.498	29.093	5.673	10.903	0.907
2/21/10	0:00	19.396	26.155	19.525	29.115	5.651	10.920	0.908
2/21/10	4:00	19.433	26.155	19.530	29.152	5.622	10.911	0.904
2/21/10	8:00	19.436	26.182	19.559	29.148	5.680	10.935	0.910
2/21/10	12:00	19.463	26.189	19.576	29.143	5.622	10.933	0.907
2/21/10	16:00	19.493	26.195	19.588	29.175	5.626	10.929	0.904
2/21/10	20:00	19.453	26.260	19.666	29.177	5.612	10.993	0.915

TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
2/22/10	0:00	19.453	26.306	19.732	29.148	5.605	11.033	0.923
2/22/10	4:00	19.495	26.317	19.761	29.184	5.643	11.043	0.922
2/22/10	8:00	19.488	26.346	19.800	29.223	5.630	11.046	0.927
2/22/10	12:00	19.542	26.388	19.858	29.215	5.677	11.102	0.930
2/22/10	16:00	19.610	26.382	19.863	29.239	5.673	11.087	0.925
2/22/10	20:00	19.582	26.430	19.924	29.246	5.647	11.128	0.935
2/23/10	0:00	19.600	26.445	19.958	29.299	5.671	11.136	0.932
2/23/10	4:00	19.642	26.455	19.975	29.316	5.661	11.139	0.931
2/23/10	8:00	19.644	26.478	20.002	29.316	5.653	11.136	0.933
2/23/10	12:00	19.661	26.564	20.108	29.306	5.649	11.229	0.950
2/23/10	16:00	19.706	26.579	20.145	29.365	5.657	11.242	0.948
2/23/10	20:00	19.684	26.629	20.213	29.385	5.678	11.288	0.955
2/24/10	0:00	19.701	26.663	20.272	29.422	5.671	11.316	0.958
2/24/10	4:00	19.736	26.678	20.306	29.427	5.675	11.327	0.956
2/24/10	8:00	19.753	26.713	20.354	29.456	5.678	11.355	0.963
2/24/10	12:00	19.823	26.747	20.405	29.514	5.632	11.383	0.963
2/24/10	16:00	19.907	26.726	20.391	29.539	5.694	11.346	0.952
2/24/10	20:00	19.882	26.743	20.408	29.554	5.657	11.346	0.953
2/25/10	0:00	19.875	26.772	20.447	29.549	5.671	11.368	0.956
2/25/10	4:00	19.894	26.783	20.461	29.562	5.634	11.364	0.955
2/25/10	8:00	19.912	26.810	20.493	29.600	5.678	11.381	0.961
2/25/10	12:00	19.961	26.837	20.527	29.618	5.663	11.399	0.962
2/25/10	16:00	20.004	26.836	20.519	29.638	5.680	11.383	0.955
2/25/10	20:00	19.961	26.883	20.573	29.621	5.657	11.420	0.960
2/26/10	0:00	19.944	26.921	20.626	29.666	5.664	11.457	0.968
2/26/10	4:00	19.964	26.940	20.655	29.660	5.653	11.470	0.971
2/26/10	8:00	19.994	26.961	20.680	29.675	5.680	11.481	0.972
2/26/10	12:00	20.046	26.993	20.721	29.695	5.659	11.503	0.973
2/26/10	16:00	20.110	26.982	20.709	29.743	5.633	11.474	0.964
2/26/10	20:00	20.058	27.010	20.741	29.756	5.598	11.455	0.962
2/27/10	0:00	20.036	27.037	20.775	29.739	5.610	11.455	0.969
2/27/10	4:00	20.039	27.062	20.806	29.772	5.649	11.466	0.971
2/27/10	8:00	20.016	27.104	20.860	29.756	5.629	11.500	0.981
2/27/10	12:00	20.066	27.134	20.899	29.813	5.614	11.520	0.980
2/27/10	16:00	20.108	27.129	20.901	29.833	5.602	11.496	0.969
2/27/10	20:00	20.056	27.159	20.930	29.851	5.641	11.446	0.970
2/28/10	0:00	20.039	27.177	20.955	29.839	5.661	11.414	0.975
2/28/10	4:00	20.046	27.190	20.972	29.886	5.674	11.383	0.975
2/28/10	8:00	20.027	27.234	21.023	29.863	5.655	11.398	0.983
2/28/10	12:00	20.086	27.251	21.047	29.917	5.690	11.411	0.982
2/28/10	16:00	20.133	27.249	21.042	29.942	5.668	11.416	0.974
2/28/10	20:00	20.076	27.284	21.079	29.945	5.719	11.412	0.977
3/1/10	0:00	20.046	27.341	21.142	29.959	5.703	11.433	0.987
3/1/10	4:00	20.064	27.358	21.176	29.991	5.697	11.429	0.987
3/1/10	8:00	20.069	27.383	21.205	29.983	5.674	11.446	0.989
3/1/10	12:00	20.093	27.432	21.264	30.006	5.695	11.511	0.995
3/1/10	16:00	20.160	27.417	21.249	30.062	5.664	11.479	0.982
3/1/10	20:00	20.116	27.442	21.276	30.085	5.685	11.401	0.972

TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
3/2/10	0:00	20.101	27.446	21.273	30.115	5.689	11.340	0.977
3/2/10	4:00	20.104	27.444	21.259	30.135	5.676	11.308	0.976
3/2/10	8:00	20.096	27.454	21.269	30.145	5.670	11.297	0.979
3/2/10	12:00	20.124	27.467	21.286	30.132	5.683	11.312	0.980
3/2/10	16:00	20.188	27.436	21.244	30.146	5.683	11.260	0.960
3/2/10	20:00	20.084	27.463	21.249	30.159	5.662	11.175	0.955
3/3/10	0:00	20.042	27.476	21.234	30.190	5.625	11.136	0.963
3/3/10	4:00	20.022	27.484	21.237	30.181	5.648	11.130	0.967
3/3/10	8:00	20.004	27.505	21.261	30.203	5.621	11.150	0.973
3/3/10	12:00	20.042	27.537	21.308	30.212	5.615	11.206	0.979
3/3/10	16:00	20.101	27.514	21.276	30.205	5.695	11.169	0.931
3/3/10	20:00	20.014	27.511	21.227	30.220	5.633	11.119	0.898
3/4/10	0:00	19.960	27.518	21.176	30.251	5.627	10.928	0.896
3/4/10	4:00	19.962	27.495	21.122	30.255	5.658	10.900	0.889
3/4/10	8:00	19.930	27.511	21.130	30.236	5.632	10.924	0.896
3/4/10	12:00	19.972	27.513	21.132	30.291	5.656	10.955	0.897
3/4/10	16:00	20.016	27.461	21.055	30.297	5.665	10.829	0.678
3/4/10	20:00	19.858	27.440	20.921	30.292	5.394	10.504	0.450
3/5/10	0:00	19.729	27.427	20.765	30.296	5.487	10.376	0.607
3/5/10	4:00	19.694	27.383	20.566	30.267	5.564	10.335	0.663
3/5/10	8:00	19.657	27.364	20.442	30.288	5.603	10.352	0.704
3/5/10	12:00	19.682	27.320	20.335	30.296	5.660	10.346	0.705
3/5/10	16:00	19.724	27.251	20.123	30.272	5.448	10.298	0.434
3/5/10	20:00	19.582	27.202	19.781	30.259	5.028	9.938	0.450
3/6/10	0:00	19.456	27.152	19.511	30.234	5.247	9.886	0.569
3/6/10	4:00	19.431	27.052	19.241	30.196	5.438	9.856	0.664
3/6/10	8:00	19.359	26.988	19.053	30.197	5.568	9.874	0.636
3/6/10	12:00	19.334	26.924	18.783	30.146	5.465	9.856	0.581
3/6/10	16:00	19.302	26.791	18.141	30.125	4.865	9.534	0.444
3/6/10	20:00	19.128	26.634	17.293	30.094	4.562	9.336	0.421
3/7/10	0:00	18.905	26.485	16.598	30.036	4.816	9.235	0.421
3/7/10	4:00	18.783	26.329	16.203	29.966	5.201	9.219	0.467
3/7/10	8:00	18.659	26.193	15.921	29.861	5.447	9.180	0.507
3/7/10	12:00	18.574	26.071	15.807	29.790	5.535	9.165	0.529
3/7/10	16:00	18.525	25.914	15.663	29.687	5.405	8.998	0.530
3/7/10	20:00	18.406	25.759	15.529	29.547	5.393	8.888	0.527
3/8/10	0:00	18.299	25.601	15.436	29.424	5.498	8.855	0.542
3/8/10	4:00	18.239	25.441	15.357	29.271	5.570	8.851	0.554
3/8/10	8:00	18.170	25.313	15.319	29.139	5.624	8.860	0.568
3/8/10	12:00	18.148	25.173	15.263	29.038	5.587	8.803	0.566
3/8/10	16:00	18.135	24.984	15.110	28.902	5.319	8.552	0.546
3/8/10	20:00	17.942	24.849	14.943	28.737	5.220	8.470	0.518
3/9/10	0:00	17.746	24.591	14.296	28.621	5.035	8.407	0.098
3/9/10	4:00	17.349	24.285	13.748	28.382	4.802	8.073	-0.015
3/9/10	8:00	16.910	23.997	13.304	28.094	4.888	7.764	0.037
3/9/10	12:00	16.585	23.733	13.027	27.919	5.045	7.549	0.112
3/9/10	16:00	16.342	23.454	12.785	27.676	5.241	7.341	0.155
3/9/10	20:00	16.084	23.223	12.631	27.461	5.391	7.250	0.164

TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
3/10/10	0:00	15.866	23.011	12.563	27.284	5.459	7.064	0.194
3/10/10	4:00	15.702	22.832	12.559	27.060	5.468	6.937	0.236
3/10/10	8:00	15.590	22.671	12.561	26.905	5.548	6.906	0.266
3/10/10	12:00	15.527	22.524	12.581	26.756	5.536	6.889	0.289
3/10/10	16:00	15.502	22.362	12.547	26.642	5.513	6.811	0.304
3/10/10	20:00	15.455	22.234	12.529	26.477	5.538	6.781	0.318
3/11/10	0:00	15.418	22.115	12.513	26.371	5.496	6.748	0.320
3/11/10	4:00	15.321	22.019	12.465	26.183	5.470	6.724	0.257
3/11/10	8:00	14.869	21.840	11.949	26.078	4.670	6.609	-0.059
3/11/10	12:00	14.536	21.651	11.780	25.829	4.590	6.375	-0.059
3/11/10	16:00	14.343	21.449	11.690	25.585	4.802	6.163	-0.021
3/11/10	20:00	14.198	21.296	11.664	25.349	5.002	5.888	0.058
3/12/10	0:00	14.137	21.147	11.636	25.183	5.204	5.845	0.095
3/12/10	4:00	14.105	20.998	11.595	25.027	5.322	5.804	0.126
3/12/10	8:00	14.036	20.925	11.621	24.832	5.394	5.799	0.154
3/12/10	12:00	13.976	20.885	11.673	24.729	5.427	5.817	0.126
3/12/10	16:00	13.939	20.841	11.710	24.612	5.421	5.823	0.144
3/12/10	20:00	13.912	20.805	11.734	24.481	5.489	5.864	0.171
3/13/10	0:00	13.939	20.746	11.746	24.425	5.516	5.888	0.190
3/13/10	4:00	13.969	20.668	11.736	24.303	5.538	5.882	0.203
3/13/10	8:00	13.957	20.652	11.780	24.232	5.507	5.933	0.225
3/13/10	12:00	13.984	20.620	11.808	24.169	5.538	5.972	0.243
3/13/10	16:00	14.029	20.553	11.772	24.130	5.515	5.973	0.256
3/13/10	20:00	13.993	20.566	11.824	24.071	5.511	6.064	0.283
3/14/10	0:00	14.013	20.570	11.882	24.012	5.524	6.142	0.296
3/14/10	4:00	14.054	20.561	11.932	23.968	5.551	6.194	0.307
3/14/10	8:00	14.073	20.587	12.013	23.905	5.539	6.278	0.322
3/14/10	12:00	14.105	20.624	12.098	23.930	5.538	6.369	0.334
3/14/10	16:00	14.197	20.601	12.122	23.926	5.561	6.388	0.333
3/14/10	20:00	14.199	20.637	12.199	23.885	5.532	6.464	0.354
3/15/10	0:00	14.239	20.675	12.278	23.902	5.572	6.538	0.369
3/15/10	4:00	14.309	20.667	12.319	23.922	5.559	6.562	0.373
3/15/10	8:00	14.348	20.696	12.397	23.943	5.594	6.618	0.390
3/15/10	12:00	14.409	20.719	12.462	23.967	5.594	6.666	0.395
3/15/10	16:00	14.500	20.698	12.486	23.968	5.603	6.664	0.400
3/15/10	20:00	14.513	20.724	12.552	23.944	5.607	6.707	0.413
3/16/10	0:00	14.543	20.753	12.616	23.986	5.590	6.757	0.427
3/16/10	4:00	14.595	20.750	12.660	23.990	5.598	6.770	0.433
3/16/10	8:00	14.633	20.759	12.712	23.970	5.584	6.791	0.441
3/16/10	12:00	14.680	20.771	12.759	24.005	5.598	6.813	0.446
3/16/10	16:00	14.747	20.740	12.775	24.020	5.580	6.787	0.445
3/16/10	20:00	14.757	20.746	12.818	24.010	5.587	6.802	0.454
3/17/10	0:00	14.779	20.765	12.864	24.021	5.537	6.828	0.462
3/17/10	4:00	14.809	20.761	12.897	24.025	5.570	6.830	0.464
3/17/10	8:00	14.802	20.803	12.965	24.021	5.525	6.878	0.475
3/17/10	12:00	14.835	20.820	13.009	24.020	5.551	6.891	0.477
3/17/10	16:00	14.934	20.801	13.033	24.083	5.543	6.895	0.479
3/17/10	20:00	14.917	20.807	13.069	24.043	5.558	6.904	0.487



TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
3/18/10	0:00	14.922	20.824	13.113	24.051	5.566	6.930	0.493
3/18/10	4:00	14.955	20.826	13.145	24.051	5.547	6.930	0.496
3/18/10	8:00	14.970	20.853	13.193	24.075	5.516	6.962	0.503
3/18/10	12:00	15.056	20.849	13.217	24.093	5.510	6.958	0.505
3/18/10	16:00	15.133	20.801	13.209	24.088	5.538	6.910	0.499
3/18/10	20:00	15.076	20.820	13.251	24.064	5.523	6.934	0.510
3/19/10	0:00	15.049	20.864	13.303	24.070	5.507	6.982	0.519
3/19/10	4:00	15.042	20.912	13.365	24.062	5.509	7.041	0.528
3/19/10	8:00	15.070	20.948	13.415	24.078	5.507	7.075	0.535
3/19/10	12:00	15.107	21.013	13.491	24.103	5.505	7.136	0.545
3/19/10	16:00	15.122	21.067	13.560	24.092	5.540	7.199	0.555
3/19/10	20:00	15.120	21.126	13.637	24.118	5.492	7.262	0.565
3/20/10	0:00	15.164	21.183	13.700	24.177	5.492	7.316	0.566
3/20/10	4:00	15.261	21.189	13.730	24.206	5.542	7.326	0.561
3/20/10	8:00	15.276	21.256	13.804	24.220	5.589	7.381	0.573
3/20/10	12:00	15.364	21.279	13.851	24.306	5.614	7.394	0.570
3/20/10	16:00	15.431	21.282	13.884	24.338	5.594	7.385	0.566
3/20/10	20:00	15.431	21.294	13.920	24.341	5.577	7.376	0.561
3/21/10	0:00	15.448	21.304	13.955	24.397	5.604	7.359	0.556
3/21/10	4:00	15.478	21.301	13.976	24.428	5.590	7.329	0.549
3/21/10	8:00	15.485	21.325	14.013	24.434	5.590	7.329	0.550
3/21/10	12:00	15.508	21.359	14.053	24.434	5.554	7.341	0.550
3/21/10	16:00	15.543	21.321	14.051	24.449	5.373	7.266	0.452
3/21/10	20:00	15.297	21.263	13.978	24.490	4.924	7.080	0.311
3/22/10	0:00	15.099	21.236	13.959	24.501	5.093	6.928	0.350
3/22/10	4:00	15.022	21.214	13.953	24.514	5.320	6.846	0.380
3/22/10	8:00	14.954	21.231	13.974	24.501	5.418	6.843	0.409
3/22/10	12:00	15.019	21.210	13.968	24.491	5.491	6.806	0.415
3/22/10	16:00	15.016	21.143	13.760	24.514	5.266	6.676	0.345
3/22/10	20:00	14.849	21.118	13.484	24.488	5.283	6.555	0.349
3/23/10	0:00	14.732	21.118	13.461	24.468	5.419	6.540	0.388
3/23/10	4:00	14.706	21.107	13.484	24.452	5.466	6.536	0.404
3/23/10	8:00	14.670	21.141	13.543	24.389	5.473	6.590	0.427
3/23/10	12:00	14.726	21.164	13.566	24.386	5.472	6.624	0.418
3/23/10	16:00	14.791	21.126	13.287	24.386	5.483	6.553	0.393
3/23/10	20:00	14.714	21.168	13.261	24.380	5.479	6.623	0.414
3/24/10	0:00	14.717	21.199	13.346	24.374	5.489	6.702	0.446
3/24/10	4:00	14.779	21.187	13.378	24.369	5.487	6.722	0.459
3/24/10	8:00	14.789	21.214	13.424	24.330	5.497	6.763	0.467
3/24/10	12:00	14.668	21.070	12.939	24.340	4.749	6.738	0.002
3/24/10	16:00	13.356	20.295	11.139	24.325	1.091	5.891	-0.323
3/24/10	20:00	12.513	19.136	9.634	23.997	1.208	5.056	-0.334
3/25/10	0:00	12.185	18.360	9.500	23.209	1.808	4.535	-0.082
3/25/10	4:00	12.047	17.902	9.527	22.652	2.958	4.249	-0.058
3/25/10	8:00	11.933	17.659	9.595	22.153	3.993	4.197	-0.056
3/25/10	12:00	11.922	17.482	9.612	21.720	4.591	4.194	-0.019
3/25/10	16:00	11.933	17.340	9.591	21.385	4.910	4.203	0.042
3/25/10	20:00	11.920	17.262	9.582	21.086	5.129	4.279	0.089

TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
3/26/10	0:00	11.910	17.208	9.569	20.818	5.209	4.359	0.117
3/26/10	4:00	11.949	17.147	9.541	20.565	5.213	4.420	0.138
3/26/10	8:00	11.990	17.109	9.516	20.340	5.292	4.487	0.158
3/26/10	12:00	12.102	17.059	9.476	20.194	5.290	4.530	0.160
3/26/10	16:00	12.212	16.924	9.346	20.010	5.306	4.470	0.170
3/26/10	20:00	12.188	16.914	9.327	19.898	5.290	4.552	0.200
3/27/10	0:00	12.172	16.962	9.376	19.748	5.318	4.680	0.219
3/27/10	4:00	12.259	16.954	9.364	19.703	5.321	4.740	0.225
3/27/10	8:00	12.282	16.947	9.359	19.628	5.342	4.786	0.232
3/27/10	12:00	12.293	16.962	9.391	19.576	5.350	4.857	0.191
3/27/10	16:00	11.949	16.727	8.894	19.546	3.944	4.814	-0.061
3/27/10	20:00	11.720	16.670	8.878	19.293	4.381	4.738	-0.057
3/28/10	0:00	11.632	16.637	8.883	19.160	4.637	4.691	-0.021
3/28/10	4:00	11.618	16.607	8.897	18.987	4.869	4.370	0.036
3/28/10	8:00	11.614	16.643	8.960	18.907	5.038	4.417	0.073
3/28/10	12:00	11.693	16.666	9.004	18.823	5.119	4.456	0.105
3/28/10	16:00	11.795	16.632	8.979	18.730	5.177	4.457	0.133
3/28/10	20:00	11.819	16.651	9.004	18.683	5.227	4.528	0.166
3/29/10	0:00	11.861	16.674	9.031	18.661	5.224	4.597	0.187
3/29/10	4:00	11.918	16.685	9.042	18.639	5.255	4.643	0.197
3/29/10	8:00	11.966	16.708	9.070	18.614	5.264	4.690	0.209
3/29/10	12:00	12.115	16.704	9.066	18.631	5.292	4.721	0.212
3/29/10	16:00	12.213	16.636	9.001	18.617	5.282	4.691	0.226
3/29/10	20:00	12.198	16.651	9.019	18.584	5.286	4.747	0.255
3/30/10	0:00	12.223	16.685	9.055	18.613	5.297	4.821	0.267
3/30/10	4:00	12.264	16.695	9.068	18.642	5.311	4.859	0.271
3/30/10	8:00	12.292	16.754	9.128	18.670	5.317	4.931	0.285
3/30/10	12:00	12.389	16.768	9.149	18.704	5.322	4.970	0.294
3/30/10	16:00	12.479	16.743	9.139	18.710	5.369	4.972	0.310
3/30/10	20:00	12.474	16.766	9.178	18.714	5.303	5.026	0.329
3/31/10	0:00	12.502	16.812	9.235	18.780	5.303	5.098	0.343
3/31/10	4:00	12.559	16.827	9.268	18.791	5.316	5.128	0.347
3/31/10	8:00	12.530	16.951	9.408	18.790	5.318	5.265	0.367
3/31/10	12:00	12.610	17.081	9.544	18.894	5.314	5.392	0.381
3/31/10	16:00	12.729	17.111	9.600	18.983	5.338	5.423	0.389
3/31/10	20:00	12.765	17.151	9.677	19.077	5.295	5.479	0.398
4/1/10	0:00	12.802	17.205	9.765	19.126	5.310	5.538	0.405
4/1/10	4:00	12.902	17.212	9.809	19.215	5.349	5.542	0.402
4/1/10	8:00	12.941	17.258	9.892	19.258	5.324	5.587	0.406
4/1/10	12:00	13.031	17.310	9.974	19.377	5.341	5.631	0.410
4/1/10	16:00	13.127	17.289	9.988	19.433	5.314	5.620	0.416
4/1/10	20:00	13.087	17.354	10.093	19.469	5.341	5.691	0.434
4/2/10	0:00	13.144	17.382	10.149	19.565	5.349	5.717	0.434
4/2/10	4:00	13.185	17.443	10.241	19.630	5.364	5.778	0.445
4/2/10	8:00	13.192	17.522	10.356	19.716	5.374	5.850	0.454
4/2/10	12:00	13.227	17.545	10.454	19.819	5.362	5.847	0.413
4/2/10	16:00	13.282	17.569	10.535	19.917	5.374	5.813	0.403
4/2/10	20:00	13.235	17.669	10.674	19.976	5.374	5.917	0.432

TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
4/3/10	0:00	13.222	17.795	10.827	20.090	5.390	6.043	0.453
4/3/10	4:00	13.315	17.833	10.912	20.209	5.459	6.077	0.456
4/3/10	8:00	13.372	17.898	11.017	20.316	5.393	6.135	0.464
4/3/10	12:00	13.515	17.925	11.085	20.423	5.385	6.149	0.466
4/3/10	16:00	13.624	17.904	11.112	20.535	5.368	6.127	0.466
4/3/10	20:00	13.631	17.938	11.182	20.584	5.385	6.155	0.476
4/4/10	0:00	13.641	17.980	11.260	20.659	5.360	6.190	0.480
4/4/10	4:00	13.684	18.009	11.329	20.748	5.411	6.203	0.483
4/4/10	8:00	13.676	18.085	11.432	20.794	5.411	6.274	0.488
4/4/10	12:00	13.791	18.102	11.478	20.911	5.372	6.281	0.485
4/4/10	16:00	13.874	18.114	11.535	20.977	5.411	6.287	0.488
4/4/10	20:00	13.804	18.228	11.663	21.034	5.403	6.396	0.507
4/5/10	0:00	13.807	18.314	11.763	21.124	5.404	6.473	0.514
4/5/10	4:00	13.881	18.356	11.843	21.204	5.404	6.500	0.517
4/5/10	8:00	13.968	18.360	11.886	21.281	5.383	6.491	0.510
4/5/10	12:00	14.082	18.353	11.900	21.350	5.393	6.439	0.499
4/5/10	16:00	14.212	18.255	11.851	21.412	5.369	6.331	0.478
4/5/10	20:00	14.153	18.316	11.932	21.402	5.373	6.380	0.493
4/6/10	0:00	14.148	18.351	11.986	21.487	5.377	6.398	0.495
4/6/10	4:00	14.198	18.312	11.990	21.512	5.358	6.346	0.488
4/6/10	8:00	14.163	18.375	12.059	21.559	5.367	6.389	0.493
4/6/10	12:00	14.227	18.423	12.113	21.600	5.417	6.419	0.498
4/6/10	16:00	14.215		12.149	21.910	5.796	6.484	0.531
4/6/10	20:00	14.134	18.589	12.288	21.754	5.470	6.612	0.546
4/7/10	0:00	14.153	18.671	12.377	21.736	5.421	6.686	0.550
4/7/10	4:00	14.225	18.702	12.429	21.753	5.400	6.712	0.548
4/7/10	8:00	14.246	18.797	12.531	21.758	5.377	6.782	0.561
4/7/10	12:00		18.906	12.632	21.789	5.394	6.864	0.565
4/7/10	16:00	15.095	19.000	12.726	21.907	5.375	6.937	0.571
4/7/10	20:00	14.505	19.053	12.788	22.003	5.416	6.963	0.570
4/8/10	0:00	14.487	19.118	12.854	22.056	5.417	7.004	0.570
4/8/10	4:00	14.526	19.147	12.899	22.149	5.416	7.004	0.568
4/8/10	8:00	14.564	19.204	12.959	22.177	5.403	7.030	0.574
4/8/10	12:00	14.648	19.242	13.006	22.250	5.411	7.037	0.576
4/8/10	16:00	14.745	19.240	13.017	22.293	5.423	7.007	0.571
4/8/10	20:00	14.738	19.280	13.065	22.362	5.425	7.030	0.575
4/9/10	0:00	14.704	19.340	13.122	22.372	5.440	7.057	0.580
4/9/10	4:00	14.739	19.380	13.168	22.441	5.400	7.070	0.581
4/9/10	8:00	14.754	19.445	13.227	22.487	5.429	7.106	0.584
4/9/10	12:00	14.853	19.504	13.273	22.504	5.423	7.122	0.588
4/9/10	16:00	14.928	19.506	13.289	22.552	5.432	7.104	0.591
4/9/10	20:00	14.901	19.557	13.340	22.602	5.436	7.145	0.596
4/10/10	0:00	14.872	19.641	13.409	22.638	5.428	7.204	0.600
4/10/10	4:00	14.907	19.691	13.457	22.681	5.467	7.230	0.601
4/10/10	8:00	14.927	19.771	13.523	22.715	5.436	7.280	0.607
4/10/10	12:00	15.041	19.800	13.555	22.757	5.444	7.286	0.607
4/10/10	16:00	15.131	19.796	13.565	22.797	5.436	7.262	0.605
4/10/10	20:00	15.076	19.871	13.630	22.865	5.432	7.301	0.611

TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
4/11/10	0:00	15.081	19.957	13.693	22.898	5.459	7.375	0.616
4/11/10	4:00	15.117	19.999	13.736	22.918	5.451	7.394	0.614
4/11/10	8:00	15.140	20.077	13.800	22.970	5.488	7.440	0.621
4/11/10	12:00	15.241	20.115	13.836	22.987	5.480	7.455	0.620
4/11/10	16:00	15.326	20.115	13.846	23.082	5.436	7.433	0.619
4/11/10	20:00	15.313	20.174	13.887	23.125	5.453	7.464	0.621
4/12/10	0:00	15.320	20.218	13.928	23.165	5.459	7.485	0.616
4/12/10	4:00	15.364	20.251	13.962	23.204	5.457	7.492	0.614
4/12/10	8:00	15.386	20.310	14.006	23.233	5.464	7.518	0.620
4/12/10	12:00	15.520	20.342	14.035	23.256	5.639	7.523	0.625
4/12/10	16:00	15.612	20.352	14.051	23.306	5.818	7.514	0.626
4/12/10	20:00	15.624	20.411	14.092	23.351	6.040	7.549	0.630
4/13/10	0:00	15.622	20.459	14.136	23.390	6.253	7.583	0.627
4/13/10	4:00	15.704	20.493	14.169	23.419	6.465	7.598	0.626
4/13/10	8:00	15.736	20.579	14.233	23.426	6.666	7.655	0.637
4/13/10	12:00	15.868	20.600	14.263	23.529	6.852	7.661	0.639
4/13/10	16:00	15.974	20.621	14.283	23.588	7.050	7.666	0.648
4/13/10	20:00	16.005	20.665	14.319	23.608	7.315	7.704	0.651
4/14/10	0:00	16.017	20.745	14.378	23.630	7.683	7.763	0.652
4/14/10	4:00	16.072	20.803	14.429	23.694	8.103	7.808	0.654
4/14/10	8:00	16.129	20.879	14.486	23.761	8.378	7.860	0.663
4/14/10	12:00	16.211	20.908	14.521	23.832	8.151	7.876	0.667
4/14/10	16:00	16.285	20.910	14.538	23.872	7.347	7.869	0.675
4/14/10	20:00	16.251	20.959	14.576	23.927	6.843	7.906	0.679
4/15/10	0:00	16.229	21.017	14.624	23.968	6.512	7.945	0.674
4/15/10	4:00	16.239	21.047	14.657	23.972	6.295	7.960	0.667
4/15/10	8:00	16.244	21.114	14.709	24.033	6.101	8.001	0.673
4/15/10	12:00	16.320	21.154	14.740	24.056	5.959	8.021	0.684
4/15/10	16:00	16.383	21.154	14.757	24.092	5.866	8.004	0.691
4/15/10	20:00	16.264	21.242	14.816	24.117	5.785	8.081	0.672
4/16/10	0:00	16.249	21.221	14.850	24.170	5.694	8.032	0.615
4/16/10	4:00	16.141	21.152	14.865	24.178	5.585	7.808	0.560
4/16/10	8:00	15.976	21.158	14.889	24.225	5.525	7.707	0.530
4/16/10	12:00	15.971	21.168	14.894	24.254	5.492	7.717	0.534
4/16/10	16:00	15.974	21.173	14.895	24.305	5.442	7.735	0.549
4/16/10	20:00	15.957	21.187	14.902	24.350	5.397	7.753	0.559
4/17/10	0:00	15.917	21.238	14.933	24.365	5.399	7.800	0.569
4/17/10	4:00	15.936	21.261	14.956	24.391	5.383	7.813	0.574
4/17/10	8:00	15.919	21.326	14.999	24.362	5.354	7.869	0.588
4/17/10	12:00	16.006	21.351	15.024	24.440	5.346	7.878	0.591
4/17/10	16:00	16.076	21.341	15.024	24.440	5.334	7.859	0.592
4/17/10	20:00	16.046	21.383	15.057	24.455	5.323	7.895	0.599
4/18/10	0:00	16.019	21.431	15.090	24.429	5.325	7.932	0.602
4/18/10	4:00	16.036	21.469	15.125	24.471	5.288	7.958	0.605
4/18/10	8:00	16.036	21.536	15.176	24.453	5.303	8.014	0.615
4/18/10	12:00	16.130	21.561	15.201	24.531	5.334	8.023	0.622
4/18/10	16:00	16.212	21.555	15.210	24.564	5.288	8.010	0.623
4/18/10	20:00	16.185	21.599	15.246	24.532	5.284	8.047	0.627

TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
4/19/10	0:00	16.170	21.647	15.282	24.575	5.288	8.079	0.628
4/19/10	4:00	16.198	21.681	15.309	24.595	5.247	8.097	0.629
4/19/10	8:00	16.205	21.744	15.353	24.608	5.262	8.142	0.637
4/19/10	12:00	16.307	21.760	15.375	24.628	5.245	8.142	0.639
4/19/10	16:00	16.377	21.760	15.386	24.652	5.250	8.119	0.645
4/19/10	20:00	16.367	21.798	15.418	24.707	5.256	8.160	0.646
4/20/10	0:00	16.325	21.851	15.456	24.716	5.254	8.197	0.648
4/20/10	4:00	16.352	21.878	15.479	24.697	5.283	8.209	0.645
4/20/10	8:00	16.372	21.922	15.521	24.735	5.258	8.233	0.649
4/20/10	12:00	16.466	21.951	15.549	24.762	5.227	8.242	0.657
4/20/10	16:00	16.520	21.964	15.567	24.782	5.250	8.238	0.665
4/20/10	20:00	16.508	22.006	15.606	24.793	5.258	8.264	0.664
4/21/10	0:00	16.511	22.042	15.651	24.809	5.252	8.287	0.659
4/21/10	4:00	16.533	22.071	15.692	24.829	5.287	8.298	0.657
4/21/10	8:00	16.541	22.121	15.733	24.810	5.231	8.327	0.661
4/21/10	12:00	16.586	22.159	15.771	24.875	5.246	8.342	0.662
4/21/10	16:00	16.657	22.170	15.791	24.901	5.217	8.331	0.668
4/21/10	20:00	16.663	22.210	15.842	24.930	5.248	8.353	0.671
4/22/10	0:00	16.637	22.258	15.942	24.940	5.242	8.387	0.672
4/22/10	4:00	16.670	22.281	15.986	24.968	5.256	8.392	0.670
4/22/10	8:00	16.687	22.333	16.050	24.953	5.211	8.420	0.676
4/22/10	12:00	16.709	22.380	16.110	25.028	5.252	8.448	0.675
4/22/10	16:00	16.782	22.375	16.116	25.063	5.223	8.420	0.666
4/22/10	20:00	16.802	22.400	16.156	25.081	5.223	8.420	0.665
4/23/10	0:00	16.797	22.442	16.209	25.098	5.232	8.442	0.670
4/23/10	4:00	16.792	22.365	16.170	25.150	5.194	8.273	0.574
4/23/10	8:00	16.556	22.170	16.041	25.143	5.121	7.863	-0.105
4/23/10	12:00	15.869	21.911	15.603	25.117	4.647	7.426	-0.057
4/23/10	16:00	15.532	21.788	15.512	25.111	4.898	7.328	0.016
4/23/10	20:00	15.353	21.752	15.479	25.180	4.997	7.365	0.134
4/24/10	0:00	15.217	21.760	15.472	25.147	5.110	7.432	0.198
4/24/10	4:00	15.203	21.733	15.452	25.095	5.104	7.450	0.229
4/24/10	8:00	15.196	21.741	15.449	25.100	5.123	7.491	0.257
4/24/10	12:00	15.251	21.741	15.451	25.037	5.117	7.517	0.283
4/24/10	16:00	15.300	21.725	15.440	25.045	5.158	7.528	0.302
4/24/10	20:00	15.298	21.744	15.455	25.000	5.195	7.575	0.324
4/25/10	0:00	15.298	21.792	15.484	24.993	5.144	7.649	0.347
4/25/10	4:00	15.344	21.821	15.514	24.990	5.187	7.699	0.366
4/25/10	8:00	15.365	21.882	15.564	24.991	5.222	7.779	0.389
4/25/10	12:00	15.420	21.924	15.611	25.056	5.173	7.837	0.401
4/25/10	16:00	15.490	21.949	15.644	25.089	5.167	7.880	0.420
4/25/10	20:00	15.533	21.998	15.702	25.086	5.175	7.941	0.440
4/26/10	0:00	15.595	22.037	15.749	25.130	5.163	7.997	0.449
4/26/10	4:00	15.660	22.065	15.784	25.157	5.185	8.037	0.458
4/26/10	8:00	15.724	22.113	15.835	25.195	5.179	8.091	0.472
4/26/10	12:00	15.816	22.126	15.896	25.198	5.181	8.123	0.480
4/26/10	16:00	15.898	22.115	15.940	25.256	5.151	8.125	0.488
4/26/10	20:00	15.920	22.159	16.007	25.223	5.198	8.173	0.501

TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
4/27/10	0:00	15.968	22.174	16.049	25.236	5.182	8.197	0.507
4/27/10	4:00	15.990	22.224	16.127	25.263	5.196	8.255	0.518
4/27/10	8:00	16.025	22.275	16.206	25.260	5.184	8.313	0.531
4/27/10	12:00	16.112	22.312	16.268	25.312	5.182	8.357	0.547
4/27/10	16:00	16.194	22.304	16.273	25.291	5.190	8.345	0.552
4/27/10	20:00	16.256	22.308	16.291	25.330	5.186	8.370	0.556
4/28/10	0:00	16.258		16.331	25.343	5.194	8.396	0.553
4/28/10	4:00	16.301		16.353	25.374	5.176	8.405	0.557
4/28/10	8:00	16.343		16.381	25.374	5.178	8.414	0.563
4/28/10	12:00	16.468		16.368	25.380	5.188	8.392	0.566
4/28/10	16:00	16.539		16.337	25.370	5.341	8.364	0.604
4/28/10	20:00	16.515	22.278	16.363	24.983	5.310	8.375	0.604
4/29/10	0:00	16.514	22.274	16.364	25.090	5.269	8.373	0.598
4/29/10	4:00	16.550	22.249	16.357	25.175	5.230	8.349	0.591
4/29/10	8:00	16.530	22.278	16.401	25.225	5.246	8.379	0.601
4/29/10	12:00	16.537	22.326	16.454	25.286	5.224	8.425	0.624
4/29/10	16:00	16.580	22.341	16.477	25.347	5.278	8.438	0.641
4/29/10	20:00	16.587	22.339	16.495	25.387	5.239	8.448	0.636
4/30/10	0:00	16.589	22.364	16.522	25.406	5.230	8.472	0.633
4/30/10	4:00	16.502	22.444	16.664	25.433	5.270	8.520	0.604
4/30/10	8:00	16.441	22.457	16.705	25.469	5.237	8.513	0.608
4/30/10	12:00	16.500	22.448	16.719	25.517	5.222	8.492	0.607
4/30/10	16:00	16.572	22.457	16.744	25.557	5.251	8.516	0.620
4/30/10	20:00	16.550	22.509	16.805	25.581	5.226	8.576	0.635
5/1/10	0:00	16.547	22.566	16.887	25.616	5.235	8.635	0.644
5/1/10	4:00	16.587	22.606	16.931	25.654	5.282	8.674	0.650
5/1/10	8:00	16.632	22.648	16.986	25.696	5.270	8.711	0.658
5/1/10	12:00	16.741	22.671	17.005	25.742	5.332	8.730	0.666
5/1/10	16:00	16.850	22.648	16.972	25.828	5.250	8.702	0.669
5/1/10	20:00	16.841	22.681	17.009	25.827	5.256	8.735	0.671
5/2/10	0:00	16.868	22.702	17.031	25.862	5.254	8.746	0.666
5/2/10	4:00	16.900	22.719	17.058	25.898	5.266	8.752	0.665
5/2/10	8:00	16.849	22.788	17.136	25.917	5.240	8.811	0.680
5/2/10	12:00	16.967	22.807	17.161	25.938	5.266	8.826	0.687
5/2/10	16:00	17.025	22.828	17.171	25.948	5.266	8.836	0.704
5/2/10	20:00	17.002	22.902	17.249	25.987	5.266	8.897	0.716
5/3/10	0:00	16.987	22.959	17.323	26.015	5.281	8.951	0.713
5/3/10	4:00	17.010	22.994	17.359	26.035	5.289	8.967	0.712
5/3/10	8:00	17.049	23.067	17.439	26.060	5.320	9.038	0.722
5/3/10	12:00	17.163	23.101	17.476	26.111	5.304	9.056	0.732
5/3/10	16:00	17.278	23.089	17.451	26.173	5.287	9.034	0.737
5/3/10	20:00	17.271	23.141	17.481	26.197	5.318	9.062	0.742
5/4/10	0:00	17.303	23.148	17.485	26.230	5.312	9.064	0.727
5/4/10	4:00	17.354	23.145	17.476	26.262	5.271	9.051	0.716
5/4/10	8:00	17.367	23.183	17.504	26.278	5.302	9.075	0.723
5/4/10	12:00	17.457	23.190	17.506	26.297	5.310	9.069	0.738
5/4/10	16:00	17.533	23.175	17.472	26.310	5.316	9.038	0.756
5/4/10	20:00	17.524	23.227	17.506	26.297	5.481	9.077	0.774

TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
5/5/10	0:00	17.444	23.334	17.633	26.289	5.640	9.185	0.775
5/5/10	4:00	17.524	23.357	17.664	26.339	5.830	9.201	0.759
5/5/10	8:00	17.553	23.429	17.731	26.371	5.978	9.266	0.769
5/5/10	12:00	17.682	23.460	17.765	26.426	6.201	9.289	0.782
5/5/10	16:00	17.744	23.467	17.764	26.470	6.176	9.291	0.794
5/5/10	20:00	17.745	23.515	17.804	26.443	6.045	9.331	0.803
5/6/10	0:00	17.770	23.567	17.855	26.485	6.006	9.378	0.795
5/6/10	4:00	17.861	23.578	17.858	26.537	6.133	9.380	0.786
5/6/10	8:00	17.941	23.605	17.867	26.585	6.327	9.394	0.780
5/6/10	12:00	18.027	23.588	17.841	26.628	6.302	9.359	0.784
5/6/10	16:00	18.095	23.569	17.794	26.651	6.101	9.318	0.790
5/6/10	20:00	18.070	23.599	17.809	26.626	5.963	9.339	0.800
5/7/10	0:00	18.114	23.559	17.762	26.665	5.859	9.285	0.772
5/7/10	4:00	17.939	23.616	17.785	26.594	5.751	9.255	0.677
5/7/10	8:00	17.789	23.620	17.904	26.598	5.703	9.194	0.707
5/7/10	12:00	17.724	23.656	17.968	26.638	5.623	9.283	0.718
5/7/10	16:00	17.730	23.683	18.016	26.680	5.600	9.337	0.737
5/7/10	20:00	17.720	23.723	18.067	26.747	5.559	9.398	0.751
5/8/10	0:00	17.683	23.771	18.124	26.777	5.526	9.452	0.758
5/8/10	4:00	17.755	23.796	18.140	26.808	5.514	9.489	0.759
5/8/10	8:00	17.777	23.851	18.180	26.825	5.487	9.535	0.768
5/8/10	12:00	17.861	23.880	18.196	26.870	5.503	9.556	0.780
5/8/10	16:00	17.968	23.855	18.153	26.920	5.491	9.524	0.778
5/9/10	20:00	17.966	23.874	18.152	26.935	5.489	9.539	0.780
5/9/10	0:00	17.951	23.920	18.191	26.960	5.443	9.574	0.778
5/9/10	4:00	17.988	23.933	18.196	26.989	5.439	9.576	0.775
5/9/10	8:00	18.016	23.956	18.209	27.017	5.415	9.587	0.776
5/9/10	12:00	18.052	23.964	18.207	27.031	5.402	9.584	0.779
5/9/10	16:00	18.090	23.943	18.172	27.057	5.392	9.545	0.777
5/9/10	20:00	18.085	23.970	18.180	27.038	5.390	9.560	0.779
5/10/10	0:00	18.090	23.985	18.187	27.031	5.415	9.560	0.775
5/10/10	4:00	18.119	23.985	18.172	27.023	5.372	9.547	0.771
5/10/10	8:00	18.162	23.964	18.141	27.038	5.386	9.504	0.759
5/10/10	12:00	18.077	23.937	18.088	26.985	5.339	9.261	0.600
5/10/10	16:00	17.918	23.777	17.955	26.973	5.320	8.960	0.522
5/10/10	20:00	17.769	23.704	17.909	26.966	5.283	8.930	0.520
5/11/10	0:00	17.493	23.746	17.963	26.870	5.291	8.935	0.515
5/11/10	4:00	17.334	23.763	18.021	26.834	5.311	8.980	0.513
5/11/10	8:00	17.232	23.828	18.102	26.838	5.308	9.071	0.529
5/11/10	12:00	17.215	23.870	18.150	26.851	5.294	9.127	0.544
5/11/10	16:00	17.284	23.836	18.119	26.914	5.313	9.103	0.544
5/11/10	20:00	17.278	23.857	18.131	26.924	5.329	9.132	0.555
5/12/10	0:00	17.297	23.874	18.142	26.956	5.331	9.158	0.561
5/12/10	4:00	17.352	23.838	18.074	26.970	5.315	9.127	0.559
5/12/10	8:00	17.339	23.886	18.121	26.968	5.325	9.166	0.573
5/12/10	12:00	17.376	23.886	18.116	26.979	5.315	9.166	0.578
5/12/10	16:00	17.426	23.868	18.084	26.996	5.310	9.141	0.574
5/12/10	20:00	17.409	23.909	18.123	26.977	5.305	9.178	0.586

TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
5/13/10	0:00	17.389	23.945	18.133	26.979	5.311	9.204	0.576
5/13/10	4:00	17.317	23.905	18.126	26.958	5.292	8.961	0.419
5/13/10	8:00	17.106	23.907	18.153	26.960	5.218	8.872	0.362
5/13/10	12:00	17.021	23.901	18.181	26.996	5.261	8.911	0.386
5/13/10	16:00	16.988	23.895	18.186	27.036	5.282	8.946	0.415
5/13/10	20:00	16.966	23.916	18.200	27.033	5.303	8.989	0.442
5/14/10	0:00	16.936	23.945	18.230	27.065	5.373	9.043	0.461
5/14/10	4:00	16.974	23.941	18.219	27.099	5.332	9.051	0.476
5/14/10	8:00	17.010	23.985	18.255	27.134	5.363	9.114	0.498
5/14/10	12:00	17.095	24.012	18.272	27.164	5.410	9.149	0.520
5/14/10	16:00	17.192	23.979	18.228	27.204	5.332	9.124	0.530
5/14/10	20:00	17.222	23.968	18.206	27.206	5.355	9.129	0.539
5/15/10	0:00	17.202	24.004	18.245	27.204	5.344	9.180	0.550
5/15/10	4:00	17.256	24.004	18.237	27.212	5.328	9.186	0.556
5/15/10	8:00	17.275	24.033	18.255	27.201	5.347	9.219	0.569
5/15/10	12:00	17.348	24.040	18.267	27.214	5.334	9.232	0.580
5/15/10	16:00	17.418	24.019	18.238	27.225	5.324	9.210	0.594
5/15/10	20:00	17.411	24.038	18.255	27.198	5.361	9.234	0.604
5/16/10	0:00	17.405	24.079	18.296	27.189	5.345	9.279	0.616
5/16/10	4:00	17.465	24.071	18.287	27.183	5.316	9.275	0.616
5/16/10	8:00	17.481	24.096	18.306	27.170	5.332	9.299	0.625
5/16/10	12:00	17.524	24.109	18.318	27.172	5.365	9.308	0.626
5/16/10	16:00	17.577	24.109	18.322	27.233	5.293	9.305	0.630
5/16/10	20:00	17.557	24.119	18.339	27.206	5.297	9.297	0.613
5/17/10	0:00	17.531	24.138	18.377	27.187	5.337	9.253	0.621
5/17/10	4:00	17.537	24.145	18.397	27.176	5.332	9.271	0.626
5/17/10	8:00	17.544	24.163	18.428	27.174	5.327	9.293	0.634
5/17/10	12:00	17.565	24.191	18.462	27.180	5.374	9.325	0.641
5/17/10	16:00	17.621	24.197	18.477	27.197	5.350	9.329	0.646
5/17/10	20:00	17.646	24.201	18.485	27.198	5.341	9.338	0.649
5/18/10	0:00	17.641	24.212	18.506	27.208	5.339	9.358	0.653
5/18/10	4:00	17.666	24.231	18.525	27.206	5.329	9.377	0.661
5/18/10	8:00	17.701	24.241	18.533	27.201	5.335	9.386	0.665
5/18/10	12:00	17.774	24.258	18.557	27.214	5.349	9.401	0.675
5/18/10	16:00	17.850	24.235	18.519	27.220	5.334	9.373	0.684
5/18/10	20:00	17.840	24.254	18.536	27.214	5.358	9.397	0.687
5/19/10	0:00	17.815	24.270	18.555	27.218	5.369	9.416	0.683
5/19/10	4:00	17.816	24.304	18.582	27.203	5.336	9.444	0.691
5/19/10	8:00	17.855	24.310	18.588	27.210	5.368	9.447	0.690
5/19/10	12:00	17.897	24.331	18.611	27.203	5.344	9.466	0.704
5/19/10	16:00	17.937	24.331	18.605	27.206	5.385	9.460	0.708
5/19/10	20:00	17.949	24.348	18.616	27.206	5.334	9.479	0.712
5/20/10	0:00	17.918	24.354	18.631	27.210	5.358	9.457	0.698
5/20/10	4:00	17.962	24.317	18.614	27.204	5.291	9.394	0.661
5/20/10	8:00	17.768	24.237	18.495	27.174	4.835	9.037	0.415
5/20/10	12:00	17.354	24.103	18.323	27.157	4.510	8.701	-0.004
5/20/10	16:00	16.903	23.972	18.228	27.138	4.720	8.502	0.045
5/20/10	20:00	16.476	23.844	18.086	27.122	4.660	8.288	0.000



TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
5/21/10	0:00	16.261	23.750	18.034	27.096	4.876	8.286	0.105
5/21/10	4:00	16.145	23.674	17.995	27.063	5.066	8.320	0.165
5/21/10	8:00	16.076	23.640	17.993	27.033	5.188	8.376	0.214
5/21/10	12:00	16.089	23.588	17.956	27.029	5.240	8.407	0.247
5/21/10	16:00	16.091	23.525	17.898	27.017	5.254	8.376	0.280
5/21/10	20:00	16.160	23.466	17.845	27.002	5.278	8.444	0.309
5/22/10	0:00	16.140	23.433	17.812	26.976	5.324	8.478	0.331
5/22/10	4:00	16.189	23.380	17.763	26.945	5.306	8.487	0.350
5/22/10	8:00	16.232	23.336	17.725	26.909	5.318	8.498	0.364
5/22/10	12:00	16.313	23.284	17.679	26.891	5.283	8.498	0.384
5/22/10	16:00	16.359	23.246	17.645	26.844	5.260	8.517	0.406
5/22/10	20:00	16.343	23.244	17.649	26.802	5.287	8.567	0.425
5/23/10	0:00	16.326	23.248	17.675	26.768	5.283	8.630	0.439
5/23/10	4:00	16.369	23.227	17.669	26.729	5.303	8.657	0.452
5/23/10	8:00	16.389	23.246	17.711	26.708	5.341	8.721	0.472
5/23/10	12:00	16.454	23.254	17.739	26.692	5.328	8.775	0.494
5/23/10	16:00	16.536	23.233	17.737	26.703	5.288	8.806	0.514
5/23/10	20:00	16.586	23.221	17.737	26.687	5.330	8.836	0.518
5/24/10	0:00	16.608	23.231	17.766	26.665	5.323	8.886	0.530
5/24/10	4:00	16.668	23.223	17.773	26.661	5.358	8.916	0.537
5/24/10	8:00	16.725	23.227	17.796	26.655	5.331	8.949	0.549
5/24/10	12:00	16.817	23.227	17.803	26.653	5.349	8.976	0.570
5/24/10	16:00	16.904	23.200	17.781	26.672	5.358	8.983	0.589
5/24/10	20:00	16.924	23.195	17.781	26.651	5.343	9.013	0.595
5/25/10	0:00	16.927	23.212	17.815	26.630	5.331	9.061	0.598
5/25/10	4:00	16.982	23.198	17.817	26.626	5.327	9.072	0.598
5/25/10	8:00	16.962	23.254	17.890	26.600	5.366	9.152	0.616
5/25/10	12:00	17.086	23.246	17.889	26.617	5.319	9.161	0.628
5/25/10	16:00	17.138	23.239	17.887	26.617	5.346	9.176	0.641
5/25/10	20:00	17.173	23.250	17.893	26.604	5.364	9.200	0.647
5/26/10	0:00	17.164	23.277	17.929	26.596	5.366	9.243	0.650
5/26/10	4:00	17.213	23.263	17.927	26.594	5.385	9.246	0.652
5/26/10	8:00	17.245	23.305	17.978	26.594	5.364	9.295	0.660
5/26/10	12:00	17.342	23.317	17.981	26.585	5.370	9.300	0.673
5/26/10	16:00	17.014	23.107	17.588	26.577	4.934	8.799	-0.020
5/26/10	20:00	16.269	22.778	17.551	26.569	4.775	8.381	-0.003
5/27/10	0:00	15.923	22.611	17.542	26.533	5.078	8.386	0.158
5/27/10	4:00	15.823	22.456	17.483	26.510	5.229	8.382	0.230
5/27/10	8:00	15.781	22.358	17.461	26.466	5.284	8.422	0.281
5/27/10	12:00	15.840	22.255	17.411	26.453	5.334	8.431	0.320
5/27/10	16:00	15.895	22.143	17.337	26.428	5.336	8.441	0.354
5/27/10	20:00	15.918	22.072	17.296	26.407	5.324	8.470	0.379
5/28/10	0:00	15.890	22.036	17.301	26.358	5.373	8.524	0.402
5/28/10	4:00	15.922	21.983	17.283	26.318	5.317	8.553	0.417
5/28/10	8:00	15.976	21.942	17.269	26.272	5.315	8.583	0.432
5/28/10	12:00	16.084	21.910	17.251	26.243	5.334	8.602	0.456
5/28/10	16:00	16.180	21.837	17.190	26.218	5.375	8.596	0.472
5/28/10	20:00	16.201	21.805	17.173	26.192	5.355	8.626	0.486

TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
5/29/10	0:00	16.178	21.805	17.198	26.133	5.378	8.674	0.496
5/29/10	4:00	16.214	21.778	17.193	26.096	5.355	8.693	0.504
5/29/10	8:00	16.246	21.767	17.202	26.066	5.353	8.713	0.513
5/29/10	12:00	16.358	21.753	17.195	26.047	5.369	8.739	0.534
5/29/10	16:00	16.445	21.717	17.158	26.055	5.336	8.739	0.553
5/29/10	20:00	16.455	21.715	17.160	26.005	5.347	8.771	0.566
5/30/10	0:00	16.452	21.727	17.185	25.978	5.327	8.808	0.569
5/30/10	4:00	16.481	21.715	17.178	25.969	5.349	8.812	0.570
5/30/10	8:00	16.505	21.763	17.237	25.917	5.359	8.884	0.589
5/30/10	12:00	16.610	21.761	17.240	25.902	5.324	8.891	0.604
5/30/10	16:00	16.633	21.769	17.255	25.873	5.327	8.910	0.621
5/30/10	20:00	16.237	21.440	17.014	25.854	4.708	8.464	0.157
5/31/10	0:00	15.928	21.297	17.010	25.843	5.007	8.373	0.187
5/31/10	4:00	15.753	21.188	16.958	25.830	5.124	8.299	0.275
5/31/10	8:00	15.676	21.137	16.924	25.811	5.256	8.323	0.328
5/31/10	12:00	15.711	21.089	16.873	25.807	5.277	8.336	0.364
5/31/10	16:00	15.748	21.045	16.813	25.790	5.280	8.347	0.398
5/31/10	20:00	15.773	21.011	16.778	25.782	5.284	8.371	0.423
6/1/10	0:00	15.731	21.020	16.788	25.736	5.356	8.423	0.444
6/1/10	4:00	15.781	20.990	16.753	25.721	5.366	8.430	0.450
6/1/10	8:00	15.824	20.990	16.751	25.681	5.381	8.459	0.461
6/1/10	12:00	15.933	20.950	16.700	25.677	5.329	8.442	0.474
6/1/10	16:00	16.007	20.910	16.642	25.650	5.354	8.436	0.496
6/1/10	20:00	16.018	20.883	16.609	25.614	5.343	8.440	0.505
6/2/10	0:00	15.928	20.961	16.717	25.589	5.340	8.514	0.483
6/2/10	4:00	15.724	20.774	16.632	25.523	5.068	8.234	0.208
6/2/10	8:00	14.319	19.662	15.167	25.536	2.370	7.832	-0.325
6/2/10	12:00	13.813	19.192	15.110	25.467	3.728	7.327	-0.041
6/2/10	16:00	13.736	18.889	15.021	25.414	4.404	7.324	0.097
6/2/10	20:00	13.716	18.713	14.946	25.332	4.757	7.359	0.064
6/3/10	0:00	13.693	18.641	14.913	25.257	4.992	7.420	-0.146
6/3/10	4:00	13.736	18.562	14.868	25.173	5.120	7.441	0.093
6/3/10	8:00	13.806	18.514	14.838	25.112	5.208	7.465	0.211
6/3/10	12:00	13.920	18.464	14.806	25.056	5.251	7.479	0.244
6/3/10	16:00	14.033	18.407	14.763	24.997	5.254	7.481	0.276
6/3/10	20:00	14.070	18.382	14.737	24.913	5.278	7.517	0.308
6/4/10	0:00	14.093	18.390	14.738	24.859	5.268	7.569	0.328
6/4/10	4:00	14.167	18.380	14.728	24.809	5.305	7.593	0.340
6/4/10	8:00	14.217	18.388	14.732	24.752	5.281	7.630	0.356
6/4/10	12:00	14.282	18.409	14.728	24.708	5.241	7.639	0.381
6/4/10	16:00	14.404	18.428	14.729	24.676	5.283	7.700	0.412
6/4/10	20:00	14.452	18.451	14.730	24.624	5.287	7.743	0.431
6/5/10	0:00	14.466	18.491	14.742	24.596	5.328	7.788	0.438
6/5/10	4:00	14.509	18.518	14.765	24.541	5.299	7.829	0.449
6/5/10	8:00	14.550	18.586	14.793	24.531	5.287	7.884	0.457
6/5/10	12:00	14.665	18.590	14.790	24.525	5.291	7.892	0.467
6/5/10	16:00	14.739	18.634	14.811	24.512	5.293	7.936	0.495
6/5/10	20:00	14.740	18.751	14.862	24.499	5.361	8.033	0.524

TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
6/6/10	0:00	14.763	18.840	14.905	24.518	5.330	8.107	0.526
6/6/10	4:00	14.816	18.913	14.949	24.531	5.295	8.172	0.536
6/6/10	8:00	14.899	18.980	14.991	24.543	5.314	8.231	0.542
6/6/10	12:00	15.053	18.999	15.004	24.577	5.330	8.243	0.555
6/6/10	16:00	15.172	19.020	15.008	24.605	5.339	8.254	0.575
6/6/10	20:00	15.224	19.052	15.016	24.586	5.349	8.284	0.580
6/7/10	0:00	15.225	19.115	15.044	24.586	5.374	8.333	0.585
6/7/10	4:00	15.321	19.108	15.057	24.560	5.335	8.321	0.579
6/7/10	8:00	15.374	19.157	15.070	24.584	5.320	8.345	0.582
6/7/10	12:00	15.432	19.196	15.097	24.567	5.310	8.365	0.594
6/7/10	16:00	15.520	19.199	15.087	24.584	5.326	8.347	0.597
6/7/10	20:00	15.506	19.245	15.109	24.579	5.314	8.365	0.610
6/8/10	0:00	15.570	19.270	15.116	24.592	5.345	8.380	0.605
6/8/10	4:00	15.637	19.253	15.113	24.592	5.347	8.350	0.597
6/8/10	8:00	15.653	19.210	15.101	24.588	5.271	8.298	0.519
6/8/10	12:00	15.516	19.317	15.172	24.518	5.354	8.374	0.555
6/8/10	16:00	15.581	19.342	15.167	24.560	5.372	8.348	0.578
6/8/10	20:00	15.583	19.398	15.186	24.560	5.335	8.384	0.599
6/9/10	0:00	15.576	19.482	15.230	24.558	5.323	8.434	0.611
6/9/10	4:00	15.614	19.529	15.250	24.569	5.321	8.447	0.613
6/9/10	8:00	15.644	19.610	15.288	24.579	5.345	8.493	0.623
6/9/10	12:00	15.757	19.646	15.307	24.624	5.325	8.499	0.636
6/9/10	16:00	15.865	19.673	15.306	24.665	5.335	8.485	0.649
6/9/10	20:00	15.875	19.726	15.324	24.672	5.347	8.512	0.654
6/10/10	0:00	15.880	19.776	15.352	24.678	5.309	8.536	0.654
6/10/10	4:00	15.951	19.778	15.351	24.697	5.346	8.512	0.646
6/10/10	8:00	15.972	19.827	15.372	24.687	5.303	8.530	0.652
6/10/10	12:00	16.007	19.860	15.396	24.674	5.315	8.538	0.661
6/10/10	16:00	16.086	19.887	15.397	24.726	5.348	8.523	0.665
6/10/10	20:00	16.102	19.929	15.410	24.724	5.340	8.538	0.674
6/11/10	0:00	16.106	19.978	15.426	24.735	5.315	8.556	0.669
6/11/10	4:00	16.112	20.015	15.453	24.712	5.335	8.563	0.671
6/11/10	8:00	16.098	20.129	15.512	24.703	5.338	8.634	0.681
6/11/10	12:00	16.178	20.158	15.540	24.731	5.333	8.630	0.691
6/11/10	16:00	16.227	20.221	15.567	24.752	5.336	8.664	0.706
6/11/10	20:00	16.239	20.290	15.620	24.777	5.359	8.704	0.710
6/12/10	0:00	16.271	20.351	15.668	24.800	5.373	8.731	0.705
6/12/10	4:00	16.304	20.400	15.707	24.817	5.373	8.749	0.705
6/12/10	8:00	16.304	20.486	15.774	24.825	5.373	8.801	0.714
6/12/10	12:00	16.399	20.498	15.783	24.868	5.377	8.774	0.708
6/12/10	16:00	16.453	20.584	15.835	24.901	5.352	8.820	0.730
6/12/10	20:00	16.461	20.645	15.907	24.928	5.371	8.842	0.729
6/13/10	0:00	16.505	20.691	15.987	24.968	5.361	8.857	0.725
6/13/10	4:00	16.543	20.725	16.030	24.983	5.369	8.857	0.723
6/13/10	8:00	16.560	20.746	16.071	25.002	5.324	8.859	0.688
6/13/10	12:00	16.588	20.811	16.147	25.015	5.351	8.887	0.701
6/13/10	16:00	16.652	20.817	16.142	25.044	5.351	8.855	0.716
6/13/10	20:00	16.682	20.865	16.178	25.082	5.355	8.870	0.729

TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
6/14/10	0:00	16.648	20.920	16.231	25.080	5.367	8.890	0.718
6/14/10	4:00	16.626	20.874	16.227	25.099	5.378	8.777	0.624
6/14/10	8:00	16.595	20.902	16.264	25.090	5.345	8.764	0.651
6/14/10	12:00	16.613	20.954	16.301	25.105	5.349	8.781	0.679
6/14/10	16:00	16.655	20.991	16.313	25.126	5.361	8.786	0.696
6/14/10	20:00	16.647	21.044	16.348	25.137	5.394	8.816	0.710
6/15/10	0:00	16.625	21.109	16.410	25.153	5.367	8.853	0.719
6/15/10	4:00	16.684	21.130	16.418	25.183	5.384	8.846	0.714
6/15/10	8:00	15.311	20.270	15.377	25.164	2.734	7.792	-0.213
6/15/10	12:00	14.356	19.796	15.096	25.149	2.493	7.649	-0.212
6/15/10	16:00	14.023	19.472	14.946	25.132	3.876	7.229	-0.110
6/15/10	20:00	13.930	19.311	14.858	25.086	4.605	7.300	0.118
6/16/10	0:00	13.866	19.262	14.819	25.004	4.906	7.383	0.196
6/16/10	4:00	13.914	19.204	14.768	24.964	5.052	7.413	0.238
6/16/10	8:00	13.953	19.191	14.747	24.895	5.201	7.450	0.275
6/16/10	12:00	14.074	19.174	14.722	24.863	5.277	7.487	0.320
6/16/10	16:00	14.181	19.111	14.683	24.865	5.302	7.477	0.340
6/16/10	20:00	14.231	19.113	14.677	24.849	5.292	7.519	0.365
6/17/10	0:00	14.240	19.140	14.686	24.827	5.320	7.573	0.380
6/17/10	4:00	14.347	19.094	14.662	24.819	5.325	7.551	0.388
6/17/10	8:00	14.379	19.121	14.675	24.766	5.325	7.588	0.404
6/17/10	12:00	14.455	19.128	14.676	24.710	5.323	7.609	0.430
6/17/10	16:00	14.542	19.147	14.679	24.665	5.312	7.643	0.465
6/17/10	20:00	14.575	19.189	14.700	24.615	5.320	7.694	0.493
6/18/10	0:00	14.548	19.287	14.759	24.556	5.309	7.798	0.511
6/18/10	4:00	14.670	19.270	14.759	24.554	5.356	7.794	0.508
6/18/10	8:00	14.741	19.287	14.774	24.535	5.319	7.818	0.513
6/18/10	12:00	14.810	19.327	14.796	24.520	5.352	7.853	0.536
6/18/10	16:00	14.915	19.363	14.808	24.525	5.352	7.880	0.562
6/18/10	20:00	14.960	19.409	14.828	24.516	5.335	7.922	0.576
6/19/10	0:00	14.930	19.512	14.889	24.482	5.307	8.018	0.586
6/19/10	4:00	14.992	19.558	14.926	24.495	5.348	8.052	0.588
6/19/10	8:00	15.057	19.617	14.968	24.506	5.354	8.104	0.589
6/19/10	12:00	15.105	19.669	15.003	24.543	5.368	8.126	0.495
6/19/10	16:00	15.193	19.606	14.970	24.579	5.350	8.030	0.506
6/19/10	20:00	15.184	19.678	15.030	24.548	5.329	8.086	0.558
6/20/10	0:00	15.000	19.652	14.948	24.560	4.486	8.281	0.018
6/20/10	4:00	14.680	19.304	14.790	24.605	4.503	7.460	0.086
6/20/10	8:00	14.420	19.380	14.805	24.552	4.952	7.541	0.255
6/20/10	12:00	14.472	19.323	14.786	24.558	5.144	7.512	0.325
6/20/10	16:00	14.520	19.323	14.761	24.563	5.255	7.524	0.388
6/20/10	20:00	14.557	19.327	14.740	24.560	5.288	7.536	0.423
6/21/10	0:00	14.260	19.283	14.471	24.510	4.118	7.831	-0.025
6/21/10	4:00	13.521	18.578	13.942	24.495	2.592	6.722	-0.025
6/21/10	8:00	13.261	18.429	13.999	24.348	4.000	6.696	-0.015
6/21/10	12:00	13.299	18.290	13.909	24.340	4.682	6.614	0.016
6/21/10	16:00	13.346	18.259	13.894	24.247	5.004	6.659	0.193
6/21/10	20:00	13.403	18.265	13.879	24.194	5.152	6.711	0.258

TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
6/22/10	0:00	13.422	18.309	13.904	24.129	5.216	6.802	0.294
6/22/10	4:00	13.457	18.345	13.914	24.100	5.198	6.861	0.314
6/22/10	8:00	13.520	18.401	13.957	24.049	5.227	6.958	0.343
6/22/10	12:00	13.637	18.401	13.951	24.060	5.260	6.943	0.369
6/22/10	16:00	13.787	18.426	13.952	24.051	5.289	7.014	0.417
6/22/10	20:00	13.854	18.479	13.973	24.018	5.254	7.079	0.451
6/23/10	0:00	13.872	18.552	14.022	23.984	5.291	7.166	0.464
6/23/10	4:00	13.992	18.544	14.020	23.992	5.279	7.171	0.461
6/23/10	8:00	13.999	18.649	14.092	23.953	5.314	7.279	0.477
6/23/10	12:00	14.109	18.693	14.118	23.961	5.310	7.322	0.498
6/23/10	16:00	14.169	18.789	14.170	23.973	5.291	7.407	0.532
6/23/10	20:00	14.241	18.848	14.210	23.997	5.322	7.467	0.555
6/24/10	0:00	14.269	18.930	14.266	24.003	5.307	7.545	0.558
6/24/10	4:00	14.360	18.963	14.298	24.030	5.336	7.580	0.556
6/24/10	8:00	14.453	19.014	14.336	24.051	5.328	7.624	0.561
6/24/10	12:00	14.583	19.050	14.360	24.085	5.309	7.651	0.574
6/24/10	16:00	14.692	19.062	14.367	24.100	5.305	7.649	0.595
6/24/10	20:00	14.748	19.089	14.381	24.108	5.329	7.665	0.606
6/25/10	0:00	14.736	19.142	14.417	24.102	5.343	7.708	0.604
6/25/10	4:00	14.785	19.167	14.443	24.100	5.308	7.721	0.601
6/25/10	8:00	14.847	19.209	14.471	24.110	5.320	7.747	0.600
6/25/10	12:00	14.950	19.238	14.490	24.133	5.316	7.757	0.618
6/25/10	16:00	15.037	19.257	14.491	24.152	5.310	7.755	0.636
6/25/10	20:00	15.074	19.297	14.506	24.148	5.368	7.767	0.644
6/26/10	0:00	15.047	19.369	14.550	24.140	5.318	7.825	0.646
6/26/10	4:00	15.048	19.404	14.576	24.131	5.318	7.821	0.640
6/26/10	8:00	15.137	19.459	14.616	24.131	5.316	7.877	0.641
6/26/10	12:00	15.226	19.501	14.639	24.194	5.293	7.890	0.658
6/26/10	16:00	15.318	19.518	14.644	24.222	5.335	7.881	0.675
6/26/10	20:00	15.360	19.547	14.654	24.224	5.291	7.890	0.682
6/27/10	0:00	15.335	19.627	14.693	24.218	5.318	7.936	0.675
6/27/10	4:00	15.388	19.637	14.705	24.226	5.329	7.925	0.667
6/27/10	8:00	15.353	19.736	14.766	24.218	5.316	7.992	0.673
6/27/10	12:00	15.400	19.822	14.818	24.234	5.335	8.044	0.693
6/27/10	16:00	15.472	19.891	14.852	24.270	5.314	8.079	0.706
6/27/10	20:00	15.516	19.963	14.891	24.299	5.339	8.120	0.718
6/28/10	0:00	15.504	20.053	14.947	24.308	5.322	8.182	0.712
6/28/10	4:00	15.576	20.095	14.979	24.331	5.343	8.198	0.704
6/28/10	8:00	15.613	20.177	15.032	24.350	5.327	8.250	0.709
6/28/10	12:00	15.784	20.225	15.064	24.413	5.449	8.265	0.732
6/28/10	16:00	15.896	20.303	15.093	24.461	5.616	8.293	0.757
6/28/10	20:00	15.960	20.368	15.132	24.489	5.877	8.332	0.759
6/29/10	0:00	15.924	20.458	15.190	24.504	5.857	8.392	0.747
6/29/10	4:00	15.981	20.525	15.240	24.544	5.830	8.423	0.743
6/29/10	8:00	16.043	20.582	15.280	24.590	5.731	8.453	0.741
6/29/10	12:00	16.165	20.649	15.325	24.651	5.764	8.484	0.770
6/29/10	16:00	16.283	20.693	15.350	24.695	5.896	8.493	0.793
6/29/10	20:00	16.337	20.748	15.383	24.735	5.982	8.514	0.794

TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
6/30/10	0:00	16.362	20.808	15.424	24.760	6.024	8.551	0.777
6/30/10	4:00	16.436	20.855	15.460	24.802	6.191	8.566	0.769
6/30/10	8:00	16.492	20.926	15.519	24.821	6.444	8.611	0.772
6/30/10	12:00	16.609	20.964	15.551	24.853	6.583	8.616	0.792
6/30/10	16:00	16.756	20.995	15.573	24.933	6.696	8.614	0.817
6/30/10	20:00	16.809	21.056	15.615	24.964	6.890	8.642	0.821
7/1/10	0:00	16.803	21.138	15.692	24.981	7.086	8.692	0.807
7/1/10	4:00	16.813	21.178	15.729	25.021	7.134	8.687	0.792
7/1/10	8:00	16.866	21.232	15.785	25.050	6.831	8.727	0.789
7/1/10	12:00	16.991	21.279	15.821	25.099	6.750	8.735	0.822
7/1/10	16:00	17.100	21.312	15.866	25.162	6.903	8.731	0.847
7/1/10	20:00	17.146	21.369	15.958	25.208	7.096	8.755	0.852
7/2/10	0:00	17.131	21.434	16.035	25.215	7.284	8.789	0.828
7/2/10	4:00	17.206	21.465	16.077	25.246	7.472	8.789	0.814
7/2/10	8:00	17.267	21.511	16.136	25.271	7.750	8.803	0.810
7/2/10	12:00	17.371	21.543	16.164	25.313	8.106	8.798	0.840
7/2/10	16:00	17.465	21.579	16.184	25.351	8.380	8.806	0.870
7/2/10	20:00	17.513	21.631	16.220	25.400	8.587	8.820	0.874
7/3/10	0:00	17.478	21.707	16.298	25.410	8.876	8.850	0.853
7/3/10	4:00	17.567	21.726	16.322	25.448	9.194	8.850	0.834
7/3/10	8:00	17.600	21.784	16.386	25.467	9.565	8.878	0.836
7/3/10	12:00	17.687	21.826	16.429	25.494	9.881	8.889	0.868
7/3/10	16:00	17.761	21.864	16.451	25.519	10.066	8.892	0.890
7/3/10	20:00	17.781	21.923	16.499	25.557	10.227	8.918	0.878
7/4/10	0:00	17.751	21.973	16.557	25.576	10.178	8.935	0.856
7/4/10	4:00	17.737	22.011	16.598	25.625	9.238	8.927	0.845
7/4/10	8:00	17.730	22.061	16.656	25.633	8.057	8.959	0.843
7/4/10	12:00	17.698	22.110	16.701	25.649	7.160	8.959	0.847
7/4/10	16:00	17.660	22.124	16.750	25.661	6.732	8.957	0.719
7/4/10	20:00	17.458	21.929	16.699	25.690	6.425	8.680	0.433
7/5/10	0:00	17.102	21.738	16.581	25.698	6.195	8.062	0.463
7/5/10	4:00	16.926	21.711	16.566	25.696	6.012	7.988	0.577
7/5/10	8:00	16.817	21.744	16.564	25.690	5.886	8.049	0.634
7/5/10	12:00	16.753	21.784	16.571	25.671	5.801	8.079	0.663
7/5/10	16:00	16.728	21.761	16.538	25.667	5.659	8.055	0.610
7/5/10	20:00	16.654	21.784	16.567	25.663	5.609	8.030	0.653
7/6/10	0:00	16.594	21.839	16.603	25.644	5.543	8.086	0.676
7/6/10	4:00	16.585	21.889	16.631	25.629	5.487	8.125	0.690
7/6/10	8:00	16.589	21.944	16.670	25.631	5.473	8.173	0.698
7/6/10	12:00	16.647	21.990	16.691	25.652	5.442	8.206	0.722
7/6/10	16:00	16.700	22.026	16.697	25.671	5.411	8.235	0.747
7/6/10	20:00	16.714	22.082	16.723	25.665	5.385	8.277	0.757
7/7/10	0:00	16.694	22.141	16.775	25.660	5.372	8.326	0.753
7/7/10	4:00	16.735	22.168	16.798	25.673	5.360	8.343	0.747
7/7/10	8:00	16.760	22.217	16.839	25.681	5.357	8.378	0.747
7/7/10	12:00	16.769	22.275	16.891	25.688	5.351	8.424	0.757
7/7/10	16:00	16.866	22.292	16.881	25.738	5.299	8.420	0.760
7/7/10	20:00	16.869	22.345	16.922	25.728	5.322	8.457	0.773

TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
7/8/10	0:00	16.864	22.397	16.974	25.730	5.259	8.491	0.765
7/8/10	4:00	16.899	22.435	17.001	25.743	5.257	8.511	0.761
7/8/10	8:00	16.905	22.490	17.050	25.747	5.257	8.547	0.765
7/8/10	12:00	16.959	22.538	17.087	25.772	5.240	8.575	0.779
7/8/10	16:00	17.028	22.565	17.087	25.808	5.236	8.580	0.796
7/8/10	20:00	17.073	22.611	17.111	25.818	5.330	8.606	0.803
7/9/10	0:00	17.105	22.670	17.163	25.820	5.500	8.649	0.796
7/9/10	4:00	17.177	22.695	17.177	25.845	5.687	8.655	0.785
7/9/10	8:00	17.222	22.758	17.224	25.854	5.918	8.690	0.789
7/9/10	12:00	17.293	22.792	17.248	25.875	5.908	8.710	0.816
7/9/10	16:00	17.353	22.815	17.242	25.911	5.823	8.712	0.847
7/9/10	20:00	17.324	22.861	17.258	25.947	5.659	8.695	0.845
7/10/10	0:00	17.326	22.909	17.296	25.938	5.564	8.751	0.824
7/10/10	4:00	17.370	22.941	17.319	25.942	5.496	8.769	0.814
7/10/10	8:00	17.393	22.987	17.348	25.944	5.407	8.788	0.812
7/10/10	12:00	17.461	23.014	17.362	25.968	5.415	8.790	0.845
7/10/10	16:00	17.513	23.039	17.352	25.993	5.415	8.790	0.882
7/10/10	20:00	17.525	23.077	17.346	25.993	5.382	8.797	0.876
7/11/10	0:00	17.498	23.128	17.384	25.974	5.341	8.823	0.847
7/11/10	4:00	17.525	23.134	17.365	25.986	5.304	8.794	0.827
7/11/10	8:00	17.424	23.044	17.308	25.974	5.248	8.439	0.573
7/11/10	12:00	17.287	22.981	17.309	25.967	5.226	8.309	0.656
7/11/10	16:00	17.241	22.968	17.296	25.986	5.205	8.301	0.722
7/11/10	20:00	17.182	22.979	17.291	25.999	5.234	8.320	0.733
7/12/10	0:00	17.093	23.050	17.351	25.963	5.257	8.387	0.751
7/12/10	4:00	17.123	23.050	17.325	25.965	5.211	8.381	0.749
7/12/10	8:00	17.128	23.092	17.339	25.959	5.203	8.407	0.751
7/12/10	12:00	17.147	23.157	17.388	25.953	5.191	8.457	0.772
7/12/10	16:00	17.203	23.151	17.357	25.980	5.162	8.442	0.774
7/12/10	20:00	17.212	23.174	17.364	25.974	5.174	8.468	0.776
7/13/10	0:00	17.180	23.216	17.391	25.976	5.176	8.492	0.776
7/13/10	4:00	17.225	23.239	17.403	26.005	5.182	8.515	0.772
7/13/10	8:00	17.237	23.288	17.435	26.022	5.167	8.554	0.774
7/13/10	12:00	17.298	23.314	17.442	26.037	5.183	8.563	0.801
7/13/10	16:00	17.370	23.355	17.443	26.087	5.218	8.593	0.839
7/13/10	20:00	17.391	23.384	17.452	26.071	5.174	8.622	0.847
7/14/10	0:00	17.380	23.437	17.494	26.064	5.202	8.667	0.829
7/14/10	4:00	17.410	23.470	17.513	26.073	5.174	8.691	0.819
7/14/10	8:00	17.395	23.516	17.547	26.075	5.215	8.714	0.815
7/14/10	12:00	17.489	23.558	17.566	26.106	5.210	8.749	0.858
7/14/10	16:00	17.539	23.594	17.579	26.148	5.218	8.775	0.903
7/14/10	20:00	17.552	23.626	17.574	26.155	5.218	8.788	0.906
7/15/10	0:00	17.424	23.714	17.652	26.108	5.228	8.749	0.678
7/15/10	4:00	17.339	23.630	17.644	26.150	5.202	8.410	0.690
7/15/10	8:00	17.295	23.619	17.639	26.174	5.283	8.412	0.733
7/15/10	12:00	17.319	23.636	17.640	26.211	5.235	8.438	0.782
7/15/10	16:00	17.379	23.644	17.616	26.249	5.199	8.457	0.832
7/15/10	20:00	17.415	23.657	17.586	26.264	5.199	8.462	0.841

TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
7/16/10	0:00	17.340	23.707	17.610	26.252	5.218	8.515	0.828
7/16/10	4:00	17.394	23.718	17.596	26.264	5.288	8.518	0.816
7/16/10	8:00	17.432	23.739	17.600	26.270	5.195	8.537	0.810
7/16/10	12:00	17.491	23.760	17.593	26.281	5.241	8.550	0.837
7/16/10	16:00	17.553	23.835	17.568	26.312	5.259	8.553	0.877
7/16/10	20:00	17.539	23.846	17.579	26.287	5.214	8.589	0.879
7/17/10	0:00	17.524	23.867	17.596	26.277	5.235	8.611	0.851
7/17/10	4:00	17.536	23.892	17.609	26.266	5.234	8.635	0.839
7/17/10	8:00	17.589	23.908	17.606	26.267	5.247	8.646	0.832
7/17/10	12:00	17.673	23.936	17.611	26.281	5.397	8.667	0.875
7/17/10	16:00	17.766	23.951	17.596	26.315	5.593	8.681	0.918
7/17/10	20:00	17.804	23.972	17.582	26.321	5.812	8.672	0.916
7/18/10	0:00	17.814	24.024	17.618	26.294	5.950	8.737	0.885
7/18/10	4:00	17.888	24.039	17.604	26.319	6.113	8.741	0.861
7/18/10	8:00	17.859	24.119	17.681	26.296	6.350	8.798	0.865
7/18/10	12:00	17.924	24.117	17.672	26.334	6.302	8.812	0.865
7/18/10	16:00	17.971	24.142	17.670	26.357	6.092	8.832	0.911
7/18/10	20:00	18.003	24.171	17.677	26.382	5.941	8.860	0.926
7/19/10	0:00	17.998	24.213	17.707	26.388	5.849	8.893	0.897
7/19/10	4:00	18.107	24.199	17.668	26.422	5.948	8.869	0.870
7/19/10	8:00	18.135	24.238	17.685	26.418	6.226	8.879	0.864
7/19/10	12:00	18.191	24.283	17.714	26.435	6.556	8.930	0.884
7/19/10	16:00	18.296	24.295	17.696	26.483	6.841	8.930	0.933
7/19/10	20:00	18.353	24.324	17.707	26.514	7.121	8.960	0.955
7/20/10	0:00	18.340	24.373	17.738	26.500	7.308	8.999	0.920
7/20/10	4:00	18.320	24.459	17.812	26.479	7.521	9.075	0.920
7/20/10	8:00	18.407	24.455	17.801	26.531	7.772	9.053	0.899
7/20/10	12:00	18.450	24.534	17.860	26.563	8.020	9.114	0.924
7/20/10	16:00	18.561	24.530	17.849	26.647	8.282	9.111	0.938
7/20/10	20:00	18.598	24.583	17.884	26.706	8.505	9.157	0.950
7/21/10	0:00	18.643	24.614	17.912	26.731	8.745	9.182	0.926
7/21/10	4:00	18.691	24.654	17.938	26.758	9.006	9.214	0.919
7/21/10	8:00	18.737	24.698	17.970	26.794	9.316	9.248	0.915
7/21/10	12:00	18.782	24.734	18.004	26.832	9.689	9.277	0.909
7/21/10	16:00	18.918	24.717	17.969	26.895	9.957	9.249	0.935
7/21/10	20:00	18.985	24.732	17.952	26.927	10.118	9.253	0.961
7/22/10	0:00	19.012	24.763	17.970	26.948	10.244	9.272	0.937
7/22/10	4:00	19.069	24.774	17.960	26.962	10.408	9.268	0.923
7/22/10	8:00	19.076	24.837	17.996	26.967	10.670	9.305	0.926
7/22/10	12:00	19.164	24.849	17.993	27.002	10.961	9.310	0.990
7/22/10	16:00	19.234	24.893	17.999	27.059	11.120	9.335	1.055
7/22/10	20:00	19.258	25.019	18.016	27.076	11.109	9.363	1.088
7/23/10	0:00	19.236	25.051	18.060	27.097	11.243	9.401	1.084
7/23/10	4:00	19.287	25.032	18.080	27.120	11.530	9.413	1.026
7/23/10	8:00	19.301	25.076	18.128	27.133	11.793	9.457	1.016
7/23/10	12:00	19.362	25.101	18.155	27.158	12.030	9.489	1.077
7/23/10	16:00	19.451	25.109	18.155	27.219	12.211	9.502	1.141
7/23/10	20:00	19.493	25.137	18.160	27.253	12.246	9.532	1.238



TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
7/24/10	0:00	19.494	25.185	18.211	27.263	12.282	9.576	1.249
7/24/10	4:00	19.544	25.179	18.211	27.301	12.429	9.567	1.230
7/24/10	8:00	19.568	25.225	18.262	27.322	12.624	9.621	1.109
7/24/10	12:00	19.616	25.311	18.332	27.349	12.837	9.680	1.126
7/24/10	16:00	19.632	25.321	18.348	27.450	13.016	9.637	0.960
7/24/10	20:00	19.657	25.298	18.351	27.473	13.030	9.623	0.993
7/25/10	0:00	19.543	25.374	18.431	27.486	12.608	9.691	1.005
7/25/10	4:00	19.560	25.332	18.409	27.547	11.336	9.630	0.992
7/25/10	8:00	19.522	25.382	18.449	27.562	9.860	9.678	1.001
7/25/10	12:00	19.538	25.401	18.473	27.606	8.608	9.689	1.039
7/25/10	16:00	19.558	25.399	18.463	27.654	7.600	9.684	1.090
7/25/10	20:00	19.523	25.420	18.457	27.665	7.134	9.678	1.104
7/26/10	0:00	19.454	25.471	18.501	27.656	6.788	9.723	1.071
7/26/10	4:00	19.470	25.458	18.486	27.673	6.551	9.695	1.039
7/26/10	8:00	19.440	25.504	18.520	27.665	6.392	9.725	1.031
7/26/10	12:00	19.520	25.513	18.524	27.688	6.440	9.721	1.063
7/26/10	16:00	19.596	25.508	18.507	27.722	6.709	9.712	1.126
7/26/10	20:00	19.593	25.544	18.520	27.745	7.056	9.747	1.163
7/27/10	0:00	19.559	25.596	18.563	27.726	7.439	9.782	1.139
7/27/10	4:00	19.596	25.617	18.577	27.724	7.897	9.789	1.081
7/27/10	8:00	19.620	25.655	18.605	27.722	8.335	9.812	1.059
7/27/10	12:00	19.713	25.680	18.623	27.753	8.748	9.819	1.106
7/27/10	16:00	19.777	25.695	18.626	27.799	9.132	9.838	1.181
7/27/10	20:00	19.812	25.720	18.635	27.808	9.472	9.860	1.269
7/28/10	0:00	19.778	25.783	18.694	27.808	9.761	9.912	1.289
7/28/10	4:00	19.817	25.808	18.715	27.823	9.986	9.927	1.240
7/28/10	8:00	19.844	25.850	18.762	27.850	10.157	9.958	1.138
7/28/10	12:00	19.924	25.878	18.790	27.886	10.317	9.977	1.177
7/28/10	16:00	20.010	25.903	18.807	27.951	10.513	10.003	1.287
7/28/10	20:00	20.015	25.941	18.836	27.982	10.750	10.035	1.391
7/29/10	0:00	20.005	26.010	18.906	27.995	11.021	10.091	1.411
7/29/10	4:00	20.064	26.027	18.931	28.041	11.302	10.103	1.393
7/29/10	8:00	20.117	26.050	18.955	28.073	11.590	10.118	1.241
7/29/10	12:00	20.214	26.065	18.970	28.117	11.891	10.131	1.235
7/29/10	16:00	20.297	26.073	18.966	28.147	12.198	10.142	1.339
7/29/10	20:00	20.335	26.077	18.960	28.181	12.470	10.124	1.185
7/30/10	0:00	20.305	26.121	19.002	28.182	12.595	10.151	1.157
7/30/10	4:00	20.360	26.121	18.992	28.207	12.581	10.131	1.134
7/30/10	8:00	20.384	26.144	19.002	28.208	12.572	10.137	1.120
7/30/10	12:00	20.378	26.203	19.041	28.202	12.696	10.183	1.134
7/30/10	16:00	20.459	26.174	19.022	28.241	12.853	10.124	1.113
7/30/10	20:00	20.469	26.209	19.053	28.243	12.993	10.152	1.146
7/31/10	0:00	20.433	26.258	19.096	28.266	13.038	10.187	1.135
7/31/10	4:00	20.439	26.293	19.133	28.290	12.950	10.205	1.123
7/31/10	8:00	20.432	26.344	19.182	28.310	12.820	10.241	1.121
7/31/10	12:00	20.479	26.377	19.218	28.353	12.795	10.267	1.158
7/31/10	16:00	20.560	26.394	19.230	28.386	12.937	10.283	1.231
7/31/10	20:00	20.603	26.413	19.243	28.424	13.073	10.302	1.316

TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
8/1/10	0:00	20.533	26.463	19.290	28.449	13.063	10.330	1.335
8/1/10	4:00	20.524	26.480	19.311	28.477	12.171	10.346	1.222
8/1/10	8:00	20.477	26.524	19.358	28.496	10.806	10.380	1.183
8/1/10	12:00	20.497	26.539	19.375	28.540	9.407	10.389	1.209
8/1/10	16:00	20.505	26.552	19.386	28.572	8.329	10.402	1.309
8/1/10	20:00	20.474	26.568	19.395	28.576	7.478	10.415	1.424
8/2/10	0:00	20.410	26.604	19.436	28.574	7.099	10.440	1.448
8/2/10	4:00	20.434	26.627	19.449	28.580	6.936	10.450	1.454
8/2/10	8:00	20.457	26.648	19.467	28.588	7.043	10.454	1.316
8/2/10	12:00	20.495	26.682	19.507	28.599	7.309	10.480	1.297
8/2/10	16:00	20.561	26.701	19.512	28.620	7.686	10.495	1.425
8/2/10	20:00	20.571	26.740	19.542	28.629	8.210	10.532	1.553
8/3/10	0:00	20.551	26.780	19.587	28.637	8.651	10.568	1.581
8/3/10	4:00	20.590	26.803	19.615	28.655	9.160	10.582	1.600
8/3/10	8:00	20.586	26.860	19.677	28.670	9.814	10.634	1.614
8/3/10	12:00	20.682	26.898	19.722	28.702	10.486	10.666	1.681
8/3/10	16:00	20.768	26.908	19.733	28.748	10.966	10.677	1.755
8/3/10	20:00	20.802	26.927	19.758	28.779	11.223	10.701	1.802
8/4/10	0:00	20.807	26.967	19.800	28.801	11.464	10.738	1.791
8/4/10	4:00	20.819	27.024	19.857	28.836	11.814	10.783	1.779
8/4/10	8:00	20.887	27.030	19.890	28.868	12.191	10.788	1.770
8/4/10	12:00	20.867	27.106	19.963	28.899	12.568	10.815	1.811
8/4/10	16:00	21.002	27.160	19.986	28.963	12.956	10.855	1.819
8/4/10	20:00	21.053	27.167	20.008	28.994	13.308	10.880	1.854
8/5/10	0:00	21.048	27.206	20.068	29.017	13.596	10.920	1.837
8/5/10	4:00	21.104	27.217	20.096	29.057	13.817	10.933	1.806
8/5/10	8:00	21.102	27.267	20.162	29.076	14.002	10.980	1.736
8/5/10	12:00	21.196	27.288	20.196	29.129	14.155	11.004	1.648
8/5/10	16:00	21.288	27.282	20.192	29.171	14.198	11.005	1.785
8/5/10	20:00	21.312	27.316	20.213	29.208	14.142	11.037	1.868
8/6/10	0:00	21.290	27.370	20.277	29.221	14.130	11.085	1.878
8/6/10	4:00	21.323	27.389	20.307	29.251	14.237	11.102	1.872
8/6/10	8:00	21.340	27.441	20.368	29.272	14.381	11.147	1.874
8/6/10	12:00	21.419	27.471	20.402	29.318	14.517	11.167	1.915
8/6/10	16:00	21.516	27.467	20.397	29.364	14.626	11.170	1.972
8/6/10	20:00	21.588	27.488	20.407	29.383	14.734	11.195	2.012
8/7/10	0:00	21.525	27.546	20.463	29.391	14.859	11.243	2.006
8/7/10	4:00	21.581	27.548	20.471	29.423	14.993	11.234	1.990
8/7/10	8:00	21.754	27.588	20.503	29.440	15.125	11.265	1.983
8/7/10	12:00	21.833	27.609	20.522	29.469	15.253	11.284	2.022
8/7/10	16:00	21.824	27.620	20.517	29.510	15.333	11.297	2.077
8/7/10	20:00	21.864	27.647	20.527	29.516	15.263	11.323	2.115
8/8/10	0:00	21.831	27.714	20.586	29.524	15.240	11.365	2.111
8/8/10	4:00	21.824	27.737	20.607	29.543	15.168	11.389	2.099
8/8/10	8:00	21.835	27.761	20.630	29.564	14.995	11.401	2.086
8/8/10	12:00	21.788	27.798	20.666	29.597	13.907	11.436	2.133
8/8/10	16:00	21.776	27.811	20.666	29.665	12.380	11.445	2.186
8/8/10	20:00	21.737	27.870	20.701	29.671	10.967	11.479	2.225

TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
8/9/10	0:00	21.858	27.929	20.759	29.688	9.864	11.525	2.229
8/9/10	4:00	21.814	27.964	20.793	29.698	9.510	11.551	2.226
8/9/10	8:00	21.735	28.025	20.859	29.693	9.807	11.599	2.222
8/9/10	12:00	21.768	28.138	20.906	29.737	10.320	11.623	2.253
8/9/10	16:00	21.846	28.216	20.910	29.806	10.802	11.638	2.304
8/9/10	20:00	21.842	28.271	20.947	29.827	11.297	11.677	2.342
8/10/10	0:00	21.978	28.308	21.016	29.842	11.768	11.727	2.340
8/10/10	4:00	21.961	28.306	21.035	29.867	12.084	11.738	2.326
8/10/10	8:00	21.995	28.321	21.068	29.900	12.279	11.759	2.314
8/10/10	12:00	22.022	28.346	21.103	29.938	12.421	11.791	2.358
8/10/10	16:00	22.065	28.338	21.096	29.970	12.543	11.802	2.407
8/10/10	20:00	22.038	28.377	21.133	29.981	12.743	11.850	2.439
8/11/10	0:00	22.028	28.411	21.181	30.012	13.017	11.876	2.433
8/11/10	4:00	22.038	28.443	21.218	30.029	13.284	11.907	2.425
8/11/10	8:00	22.043	28.483	21.264	30.048	13.503	11.945	2.416
8/11/10	12:00	22.140	28.510	21.291	30.094	13.682	11.965	2.449
8/11/10	16:00	22.226	28.512	21.291	30.140	13.834	11.980	2.492
8/11/10	20:00	22.234	28.541	21.318	30.147	13.966	12.013	2.520
8/12/10	0:00	22.215	28.586	21.367	30.174	14.075	12.047	2.508
8/12/10	4:00	22.244	28.602	21.386	30.193	14.131	12.056	2.493
8/12/10	8:00	22.309	28.631	21.421	30.218	14.131	12.076	2.479
8/12/10	12:00	22.390	28.649	21.428	30.250	14.090	12.087	2.517
8/12/10	16:00	22.469	28.644	21.416	30.284	14.049	12.089	2.566
8/12/10	20:00	22.425	28.674	21.428	30.279	14.040	12.108	2.594
8/13/10	0:00	22.432	28.717	21.473	30.296	14.090	12.141	2.586
8/13/10	4:00	22.442	28.751	21.507	30.307	14.222	12.168	2.578
8/13/10	8:00	22.460	28.777	21.530	30.327	14.385	12.184	2.575
8/13/10	12:00	22.509	28.816	21.570	30.346	14.591	12.219	2.612
8/13/10	16:00	22.532	28.820	21.572	30.382	14.275	12.223	2.626
8/13/10	20:00	22.468	28.888	21.633	30.376	13.870	12.277	2.624
8/14/10	0:00	22.443	28.959	21.722	30.411	13.820	12.337	2.615
8/14/10	4:00	22.473	29.001	21.776	30.458	13.966	12.369	2.603
8/14/10	8:00	22.507	29.041	21.823	30.515	14.168	12.399	2.591
8/14/10	12:00	22.569	29.085	21.879	30.578	14.246	12.429	2.599
8/14/10	16:00	22.633	29.119	21.911	30.630	14.316	12.461	2.642
8/14/10	20:00	22.621	29.163	21.961	30.659	14.454	12.500	2.668
8/15/10	0:00	22.599	29.232	22.055	30.694	14.491	12.554	2.662
8/15/10	4:00	22.555	29.285	22.120	30.738	13.712	12.591	2.651
8/15/10	8:00	22.549	29.314	22.159	30.803	12.318	12.608	2.641
8/15/10	12:00	22.569	29.339	22.193	30.853	10.978	12.628	2.672
8/15/10	16:00	22.810	29.353	22.194	30.891	9.719	12.641	2.710
8/15/10	20:00	22.877	29.360	22.201	31.013	8.705	12.648	2.729
8/16/10	0:00	22.720	29.413	22.272	31.023	7.910	12.686	2.722
8/16/10	4:00	22.680	29.442	22.309	31.021	7.516	12.706	2.714
8/16/10	8:00	22.658	29.471	22.343	31.000	7.638	12.717	2.704
8/16/10	12:00	22.706	29.502	22.345	31.026	8.050	12.723	2.732
8/16/10	16:00	22.758	29.517	22.304	31.053	8.612	12.716	2.769
8/16/10	20:00	22.926	29.542	22.294	31.055	9.192	12.721	2.781

TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
8/17/10	0:00	22.951	29.624	22.396	31.042	9.861	12.785	2.777
8/17/10	4:00	23.040	29.629	22.377	31.078	10.560	12.765	2.759
8/17/10	8:00	23.075	29.662	22.408	31.072	11.182	12.791	2.749
8/17/10	12:00	23.090	29.704	22.462	31.099	11.700	12.819	2.740
8/17/10	16:00	23.135	29.721	22.458	31.118	12.040	12.825	2.730
8/17/10	20:00	23.164	29.733	22.460	31.137	12.340	12.821	2.718
8/18/10	0:00	23.127	29.786	22.525	31.148	12.670	12.860	2.710
8/18/10	4:00	23.117	29.807	22.538	31.175	12.993	12.860	2.701
8/18/10	8:00	23.127	29.843	22.570	31.198	13.323	12.892	2.693
8/18/10	12:00	23.140	29.874	22.594	31.233	13.681	12.909	2.687
8/18/10	16:00	23.239	29.882	22.554	31.326	14.052	12.897	2.723
8/18/10	20:00	23.231	29.908	22.550	31.337	14.346	12.910	2.758
8/19/10	0:00	23.177	29.989	22.618	31.332	14.542	12.951	2.754
8/19/10	4:00	23.221	30.002	22.611	31.350	14.779	12.947	2.745
8/19/10	8:00	23.232	30.038	22.640	31.356	15.018	12.970	2.738
8/19/10	12:00	23.301	30.065	22.657	31.373	15.216	12.986	2.767
8/19/10	16:00	23.375	30.063	22.619	31.400	15.313	12.990	2.814
8/19/10	20:00	23.375	30.092	22.633	31.415	15.370	13.018	2.844
8/20/10	0:00	23.346	30.132	22.682	31.417	15.482	13.044	2.841
8/20/10	4:00	23.378	30.147	22.680	31.432	15.585	13.047	2.835
8/20/10	8:00	23.392	30.185	22.713	31.438	15.698	13.072	2.833
8/20/10	12:00	23.422	30.212	22.748	31.453	15.836	13.088	2.831
8/20/10	16:00	23.440	30.218	22.741	31.474	15.964	13.070	2.812
8/20/10	20:00	23.462	30.243	22.765	31.478	15.967	13.111	2.810
8/21/10	0:00	23.432	30.290	22.852	31.503	15.904	13.159	2.803
8/21/10	4:00	23.430	30.332	22.908	31.541	15.916	13.191	2.795
8/21/10	8:00	23.447	30.384	22.987	31.574	15.967	13.243	2.789
8/21/10	12:00	23.499	30.435	23.069	31.629	15.971	13.293	2.813
8/21/10	16:00	23.549	30.456	23.082	31.680	15.990	13.306	2.858
8/21/10	20:00	23.601	30.489	23.109	31.738	16.079	13.343	2.886
8/22/10	0:00	23.561	30.537	23.174	31.779	16.095	13.382	2.876
8/22/10	4:00	23.556	30.556	23.184	31.821	15.195	13.384	2.862
8/22/10	8:00	23.506	30.605	23.240	31.850	13.705	13.419	2.857
8/22/10	12:00	23.536	30.634	23.272	31.894	12.205	13.439	2.880
8/22/10	16:00	23.569	30.638	23.230	31.943	10.930	13.436	2.924
8/22/10	20:00	23.519	30.655	23.223	31.970	9.766	13.443	2.941
8/23/10	0:00	23.425	30.680	23.255	31.980	8.828	13.458	2.930
8/23/10	4:00	23.395	30.672	23.260	31.995	8.073	13.456	2.920
8/23/10	8:00	23.383	30.668	23.284	32.007	7.536	13.473	2.912
8/23/10	12:00	23.445	30.649	23.282	32.033	7.525	13.475	2.938
8/23/10	16:00	23.465	30.636	23.267	32.037	7.888	13.481	2.975
8/23/10	20:00	23.478	30.638	23.274	32.058	8.469	13.512	2.991
8/24/10	0:00	23.425	30.676	23.335	32.060	9.069	13.545	2.981
8/24/10	4:00	23.378	30.735	23.450	32.075	9.685	13.606	2.973
8/24/10	8:00	23.413	30.772	23.503	32.121	10.250	13.636	2.965
8/24/10	12:00	23.482	30.804	23.540	32.167	10.689	13.655	2.969
8/24/10	16:00	23.576	30.812	23.526	32.228	11.055	13.662	3.010
8/24/10	20:00	23.604	30.844	23.537	32.274	11.403	13.690	3.030

TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
8/25/10	0:00	23.606	30.888	23.579	32.308	11.787	13.718	3.022
8/25/10	4:00	23.653	30.911	23.589	32.339	12.195	13.726	3.011
8/25/10	8:00	23.673	30.953	23.637	32.365	12.514	13.759	3.005
8/25/10	12:00	23.716	30.964	23.643	32.409	12.831	13.733	3.036
8/25/10	16:00	23.884	30.957	23.593	32.451	13.198	13.774	3.074
8/25/10	20:00	23.897	30.976	23.602	32.489	13.583	13.794	3.090
8/26/10	0:00	23.807	31.008	23.631	32.512	13.285	13.813	3.072
8/26/10	4:00	23.783	31.029	23.645	32.533	12.164	13.818	3.061
8/26/10	8:00	23.738	31.064	23.680	32.550	10.921	13.844	3.053
8/26/10	12:00	23.776	31.087	23.684	32.579	9.711	13.854	3.089
8/26/10	16:00	23.837	31.092	23.633	32.603	8.881	13.846	3.128
8/26/10	20:00	23.832	31.110	23.613	32.604	8.714	13.854	3.146
8/27/10	0:00	23.798	31.157	23.652	32.615	9.095	13.878	3.132
8/27/10	4:00	23.803	31.176	23.657	32.626	9.722	13.874	3.119
8/27/10	8:00	23.810	31.201	23.692	32.626	10.389	13.908	3.111
8/27/10	12:00	23.877	31.197	23.686	32.653	10.919	13.887	3.140
8/27/10	16:00	23.937	31.176	23.626	32.674	11.350	13.891	3.178
8/27/10	20:00	23.999	31.184	23.621	32.676	11.792	13.926	3.194
8/28/10	0:00	23.944	31.226	23.682	32.672	12.211	13.963	3.180
8/28/10	4:00	23.964	31.245	23.689	32.686	12.503	13.965	3.169
8/28/10	8:00	23.911	31.278	23.721	32.688	12.062	13.987	3.157
8/28/10	12:00	23.959	31.295	23.724	32.720	11.019	13.995	3.192
8/28/10	16:00	23.986	31.297	23.682	32.728	9.853	13.993	3.230
8/28/10	20:00	23.910	31.327	23.697	32.729	8.833	14.017	3.248
8/29/10	0:00	23.797	31.373	23.767	32.733	8.025	14.047	3.230
8/29/10	4:00	23.763	31.396	23.777	32.741	7.425	14.053	3.216
8/29/10	8:00	23.734	31.430	23.818	32.739	7.110	14.073	3.185
8/29/10	12:00	23.776	31.444	23.828	32.760	6.840	14.080	3.234
8/29/10	16:00	23.800	31.440	23.797	32.777	6.638	14.080	3.319
8/29/10	20:00	23.733	31.467	23.821	32.764	6.525	14.108	3.330
8/30/10	0:00	23.684	31.503	23.892	32.765	6.479	14.145	3.270
8/30/10	4:00	23.709	31.505	23.921	32.783	6.684	14.164	3.246
8/30/10	8:00	23.753	31.511	23.963	32.796	7.046	14.188	3.236
8/30/10	12:00	23.871	31.501	23.955	32.838	7.483	14.193	3.285
8/30/10	16:00	23.980	31.461	23.901	32.880	8.087	14.180	3.368
8/30/10	20:00	23.969	31.449	23.888	32.890	8.678	14.184	3.338
8/31/10	0:00	23.957	31.461	23.933	32.895	9.212	14.225	3.301
8/31/10	4:00	24.001	31.453	23.941	32.908	9.832	14.236	3.315
8/31/10	8:00	24.067	31.451	23.965	32.920	10.483	14.255	3.311
8/31/10	12:00	24.146	31.442	23.972	32.947	11.101	14.273	3.366
8/31/10	16:00	24.225	31.434	23.948	32.971	11.674	14.284	3.410
8/31/10	20:00	24.166	31.449	23.957	32.994	11.730	14.308	3.402
9/1/10	0:00	23.940	31.486	24.092	32.989	10.891	14.277	3.253
9/1/10	4:00	23.913	31.415	24.031	33.029	9.725	14.006	3.202
9/1/10	8:00	23.820	31.358	24.013	33.038	8.690	14.017	3.192
9/1/10	12:00	23.684	31.341	24.079	33.023	7.876	14.091	3.101
9/1/10	16:00	23.567	31.136	23.799	33.072	7.266	13.216	2.099
9/1/10	20:00	23.298	31.019	23.769	33.042	6.937	13.417	1.937

TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
9/2/10	0:00	23.124	30.922	23.736	33.031	6.652	13.511	1.882
9/2/10	4:00	23.014	30.836	23.692	33.025	6.437	13.552	1.905
9/2/10	8:00	22.895	30.802	23.707	32.985	6.275	13.619	1.967
9/2/10	12:00	22.813	30.777	23.733	32.977	6.153	13.671	2.060
9/2/10	16:00	22.724	30.777	23.787	32.989	6.062	13.738	2.145
9/2/10	20:00	22.719	30.762	23.799	33.004	5.982	13.761	2.184
9/3/10	0:00	22.629	30.793	23.875	33.000	5.904	13.837	2.205
9/3/10	4:00	22.638	30.791	23.885	33.027	5.856	13.861	2.246
9/3/10	8:00	22.650	30.793	23.882	33.042	5.811	13.870	2.285
9/3/10	12:00	22.702	30.796	23.875	33.046	5.751	13.881	2.341
9/3/10	16:00	22.756	30.779	23.811	33.059	5.704	13.866	2.458
9/3/10	20:00	22.734	30.789	23.787	33.046	5.683	13.876	2.513
9/4/10	0:00	22.672	30.810	23.804	33.038	5.680	13.902	2.507
9/4/10	4:00	22.667	30.825	23.807	33.036	5.648	13.909	2.513
9/4/10	8:00	22.665	30.842	23.812	33.025	5.633	13.916	2.521
9/4/10	12:00	22.727	30.835	23.768	33.046	5.586	13.887	2.577
9/4/10	16:00	22.823	30.789	23.653	33.044	5.577	13.840	2.597
9/4/10	20:00	22.780	30.781	23.617	33.012	5.565	13.837	2.636
9/5/10	0:00	22.720	30.770	23.617	32.974	5.551	13.844	2.648
9/5/10	4:00	22.718	30.745	23.585	32.947	5.530	13.831	2.687
9/5/10	8:00	22.733	30.728	23.551	32.920	5.522	13.818	2.689
9/5/10	12:00	22.765	30.724	23.529	32.913	5.507	13.818	2.725
9/5/10	16:00	22.772	30.712	23.475	32.870	5.495	13.805	2.752
9/5/10	20:00	22.738	30.720	23.471	32.829	5.509	13.809	2.774
9/6/10	0:00	22.696	30.743	23.495	32.802	5.478	13.831	2.781
9/6/10	4:00	22.713	30.745	23.480	32.783	5.449	13.824	2.792
9/6/10	8:00	22.703	30.766	23.493	32.750	5.480	13.837	2.743
9/6/10	12:00	22.722	30.791	23.509	32.716	5.437	13.854	2.778
9/6/10	16:00	22.708	30.840	23.573	32.716	5.453	13.907	2.801
9/6/10	20:00	22.547	30.957	23.806	32.708	5.459	14.041	2.796
9/7/10	0:00	22.559	31.011	23.911	32.754	5.445	14.093	2.833
9/7/10	4:00	22.617	31.043	23.944	32.806	5.449	14.112	2.831
9/7/10	8:00	22.657	31.089	23.992	32.852	5.453	14.145	2.833
9/7/10	12:00	22.746	31.129	24.029	32.908	5.447	14.167	2.862
9/7/10	16:00	22.857	31.134	23.985	32.950	5.468	14.154	2.896
9/7/10	20:00	22.856	31.163	23.980	32.964	5.439	14.171	2.918
9/8/10	0:00	22.852	31.197	23.995	32.977	5.463	14.184	2.910
9/8/10	4:00	22.873	31.217	23.992	32.990	5.410	14.171	2.902
9/8/10	8:00	22.883	31.259	24.024	32.998	5.442	14.210	2.900
9/8/10	12:00	22.964	31.274	24.002	33.017	5.455	14.199	2.924
9/8/10	16:00	23.031	31.272	23.937	33.038	5.440	14.174	2.955
9/8/10	20:00	23.024	31.289	23.907	33.034	5.414	14.171	2.971
9/9/10	0:00	22.999	31.325	23.937	33.021	5.368	14.197	2.969
9/9/10	4:00	23.034	31.327	23.900	33.021	5.428	14.173	2.961
9/9/10	8:00	23.022	31.354	23.907	32.992	5.480	14.184	2.953
9/9/10	12:00	23.057	31.362	23.890	33.002	5.389	14.171	2.944
9/9/10	16:00	23.083	31.358	23.841	32.992	5.405	14.141	2.948
9/9/10	20:00	23.052	31.388	23.864	32.987	5.397	14.165	2.954

TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
9/10/10	0:00	23.029	31.419	23.898	32.981	5.411	14.191	2.950
9/10/10	4:00	23.051	31.427	23.888	32.989	5.327	14.187	2.938
9/10/10	8:00	23.059	31.442	23.890	32.985	5.366	14.186	2.931
9/10/10	12:00	23.057	31.463	23.900	32.977	5.409	14.197	2.927
9/10/10	16:00	23.111	31.469	23.883	32.979	5.399	14.187	2.923
9/10/10	20:00	23.049	31.516	23.961	32.950	5.403	14.238	2.938
9/11/10	0:00	22.997	31.568	24.059	32.948	5.380	14.290	2.939
9/11/10	4:00	22.995	31.612	24.151	32.983	5.401	14.330	2.935
9/11/10	8:00	22.961	31.663	24.234	33.004	5.359	14.379	2.937
9/11/10	12:00	23.065	31.677	24.248	33.059	5.357	14.385	2.956
9/11/10	16:00	23.161	31.681	24.219	33.103	5.427	14.381	2.996
9/11/10	20:00	23.159	31.707	24.238	33.153	5.407	14.407	3.022
9/12/10	0:00	23.139	31.738	24.271	33.156	5.380	14.426	3.016
9/12/10	4:00	23.168	31.759	24.280	33.168	5.367	14.435	3.014
9/12/10	8:00	23.174	31.789	24.310	33.177	5.421	14.457	3.014
9/12/10	12:00	23.245	31.803	24.315	33.202	5.433	14.463	3.044
9/12/10	16:00	23.340	31.797	24.254	33.242	5.440	14.444	3.083
9/12/10	20:00	23.300	31.818	24.263	33.240	5.415	14.468	3.107
9/13/10	0:00	23.268	31.849	24.300	33.248	5.396	14.488	3.103
9/13/10	4:00	23.270	31.866	24.307	33.263	5.372	14.487	3.097
9/13/10	8:00	23.275	31.904	24.359	33.265	5.392	14.520	3.094
9/13/10	12:00	23.362	31.904	24.332	33.290	5.379	14.507	3.107
9/13/10	16:00	23.446	31.881	24.246	33.317	5.371	14.468	3.141
9/13/10	20:00	23.221	31.904	24.241	33.242	5.357	14.403	2.703
9/14/10	0:00	22.891	31.744	23.965	33.278	5.340	13.230	1.843
9/14/10	4:00	22.664	31.514	23.817	33.294	5.291	13.130	1.661
9/14/10	8:00	22.336	31.363	23.699	33.255	5.313	13.227	1.606
9/14/10	12:00	22.197	31.227	23.491	33.259	5.350	13.377	1.582
9/14/10	16:00	22.173	31.086	23.161	33.261	5.353	13.444	1.596
9/14/10	20:00	22.079	30.990	22.931	33.248	5.357	13.526	1.699
9/15/10	0:00	22.001	30.912	22.770	33.229	5.348	13.599	1.808
9/15/10	4:00	21.976	30.833	22.594	33.212	5.383	13.623	1.871
9/15/10	8:00	21.994	30.746	22.423	33.227	5.373	13.610	1.890
9/15/10	12:00	21.943	30.706	22.325	33.143	5.399	13.647	1.747
9/15/10	16:00	21.977	30.622	22.208	33.145	5.387	13.617	1.744
9/15/10	20:00	21.952	30.578	22.157	33.112	5.371	13.630	1.849
9/16/10	0:00	21.881	30.571	22.201	33.082	5.389	13.682	1.919
9/16/10	4:00	21.840	30.573	22.272	33.063	5.408	13.734	1.968
9/16/10	8:00	21.843	30.571	22.330	33.061	5.368	13.769	2.011
9/16/10	12:00	21.859	30.571	22.411	33.074	5.397	13.805	2.056
9/16/10	16:00	21.915	30.544	22.399	33.086	5.384	13.799	2.103
9/16/10	20:00	21.960	30.508	22.381	33.093	5.383	13.779	2.135
9/17/10	0:00	21.941	30.514	22.440	33.078	5.397	13.801	2.154
9/17/10	4:00	21.978	30.504	22.467	33.080	5.362	13.797	2.166
9/17/10	8:00	21.955	30.518	22.541	33.061	5.409	13.820	2.184
9/17/10	12:00	22.045	30.512	22.574	33.071	5.382	13.814	2.205
9/17/10	16:00	22.105	30.487	22.556	33.067	5.399	13.790	2.268
9/17/10	20:00	22.067	30.508	22.624	33.082	5.418	13.816	2.315

TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
9/18/10	0:00	22.027	30.543	22.727	33.059	5.380	13.853	2.329
9/18/10	4:00	22.047	30.550	22.777	33.051	5.374	13.859	2.335
9/18/10	8:00	22.028	30.594	22.899	33.038	5.354	13.902	2.347
9/18/10	12:00	22.069	30.613	22.972	33.059	5.390	13.918	2.358
9/18/10	16:00	22.122	30.608	22.983	33.080	5.394	13.910	2.388
9/18/10	20:00	22.125	30.627	23.027	33.068	5.396	13.928	2.412
9/19/10	0:00	22.139	30.650	23.080	33.078	5.425	13.946	2.420
9/19/10	4:00	22.160	30.663	23.113	33.076	5.425	13.952	2.424
9/19/10	8:00	22.162	30.699	23.181	33.078	5.448	13.976	2.426
9/19/10	12:00	22.214	30.715	23.220	33.091	5.417	13.983	2.428
9/19/10	16:00	22.283	30.703	23.185	33.107	5.506	13.940	2.443
9/19/10	20:00	22.281	30.728	23.214	33.109	5.419	13.966	2.469
9/20/10	0:00	22.291	30.743	23.234	33.111	5.400	13.965	2.467
9/20/10	4:00	22.340	30.736	23.207	33.111	5.371	13.933	2.460
9/20/10	8:00	22.329	30.766	23.249	33.080	5.408	13.952	2.462
9/20/10	12:00	22.390	30.776	23.251	33.084	5.417	13.942	2.489
9/20/10	16:00	22.448	30.764	23.195	33.080	5.452	13.900	2.540
9/20/10	20:00	22.418	30.783	23.205	33.053	5.429	13.918	2.572
9/21/10	0:00	22.378	30.820	23.273	33.042	5.439	13.953	2.582
9/21/10	4:00	22.378	30.843	23.310	33.044	5.425	13.965	2.584
9/21/10	8:00	22.366	30.881	23.364	33.030	5.429	13.994	2.586
9/21/10	12:00	22.445	30.898	23.377	33.044	5.433	13.989	2.606
9/21/10	16:00	22.450	30.919	23.398	33.051	5.464	14.004	2.637
9/21/10	20:00	22.415	30.965	23.455	33.063	5.430	14.048	2.643
9/22/10	0:00	22.410	30.992	23.527	33.057	5.412	14.063	2.637
9/22/10	4:00	22.433	31.024	23.586	33.069	5.443	14.086	2.635
9/22/10	8:00	22.438	31.064	23.644	33.076	5.420	14.117	2.635
9/22/10	12:00	22.505	31.085	23.663	33.109	5.433	14.124	2.648
9/22/10	16:00		31.035	23.600	32.985	5.465	14.087	2.666
9/22/10	20:00	22.345	31.033	23.606	32.937	5.441	14.091	2.681
9/23/10	0:00	22.406	31.071	23.669	32.939	5.402	14.135	2.682
9/23/10	4:00	22.470	31.074	23.662	32.956	5.431	14.115	2.680
9/23/10	8:00	22.542	31.092	23.671	32.965	5.397	14.135	2.678
9/23/10	12:00	22.602	31.112		32.977	5.864	14.139	2.692
9/23/10	16:00	22.619	31.108	23.669	32.981	5.591	14.118	2.680
9/23/10	20:00	22.575	31.123	23.727	32.963	5.605	14.031	2.649
9/24/10	0:00	22.416	31.125	23.825	32.981	5.572	13.645	2.547
9/24/10	4:00	22.316	31.110	23.891	33.030	5.580	13.829	2.527
9/24/10	8:00	22.282	31.118	23.959	33.084	5.533	13.940	2.521
9/24/10	12:00	22.344	31.114	23.991	33.168	5.539	14.001	2.531
9/24/10	16:00	22.423	31.087	23.947	33.232	5.545	14.024	2.561
9/24/10	20:00	22.388	31.095	23.954	33.253	5.527	14.066	2.584
9/25/10	0:00	22.378	31.104	23.978	33.293	5.479	14.096	2.576
9/25/10	4:00	22.422	31.100	23.957	33.303	5.502	14.100	2.569
9/25/10	8:00	22.483	31.076	23.903	33.345	5.477	14.072	2.557
9/25/10	12:00	22.470	31.104	23.918	33.331	5.500	14.111	2.557
9/25/10	16:00	22.438	31.137	23.973	33.322	5.504	14.152	2.565
9/25/10	20:00	22.433	31.154	23.999	33.347	5.510	14.173	2.565



TABLE S2.1 (Cont.)

Date	Time	Depth to Water (ft TOC)						
		MW1s	MW2s	MW3s	MW4s	MW6s	MW7s	MW8s
9/26/10	0:00	22.438	31.177	24.030	33.364	5.509	14.197	2.561
9/26/10	4:00	22.470	31.194	24.044	33.387	5.511	14.212	2.557
9/26/10	8:00	22.452	31.223	24.079	33.404	5.485	14.219	2.556
9/26/10	12:00	22.507	31.249	24.101	33.423	5.479	14.254	2.556
9/26/10	16:00	22.634	31.223	24.011	33.465	5.522	14.202	2.570
9/26/10	20:00	22.602	31.241	24.008	33.461	5.518	14.213	2.593
9/27/10	0:00	22.592	31.255	24.011	33.448	5.501	14.223	2.589
9/27/10	4:00	22.612	31.261	23.998	33.444	5.474	14.219	2.582
9/27/10	8:00	22.605	31.288	24.020	33.431	5.477	14.241	2.582
9/27/10	12:00	22.686	31.293	23.998	33.440	5.459	14.232	2.593
9/27/10	16:00	22.746	31.289	23.948	33.423	5.513	14.210	2.629
9/27/10	20:00	22.704	31.302	23.935	33.393	5.495	14.213	2.649
9/28/10	0:00	22.684	31.323	23.952	33.362	5.492	14.228	2.649
9/28/10	4:00	22.648	31.354	23.998	33.353	5.589	14.262	2.651
9/28/10	8:00	22.624	31.393	24.067	33.353	5.493	14.299	2.649
9/28/10	12:00	22.676	31.421	24.101	33.373	5.507	14.316	2.663
9/28/10	16:00	22.775	31.412	24.045	33.416	5.511	14.293	2.694
9/28/10	20:00	22.713	31.440	24.064	33.408	5.519	14.312	2.716
9/29/10	0:00	22.701	31.461	24.089	33.394	5.511	14.325	2.708
9/29/10	4:00	22.751	31.475	24.091	33.399	5.488	14.334	2.700
9/29/10	8:00	22.734	31.511	24.135	33.398	5.509	14.362	2.698
9/29/10	12:00	22.840	31.524	24.130	33.434	5.484	14.362	2.718
9/29/10	16:00	22.882	31.538	24.121	33.463	5.502	14.371	2.756
9/29/10	20:00	22.808	31.585	24.186	33.429	5.502	14.416	2.777
9/30/10	0:00	22.743	31.650	24.311	33.425	5.519	14.477	2.783
9/30/10	4:00	22.758	31.687	24.371	33.467	5.539	14.512	2.782
9/30/10	8:00	22.783	31.729	24.437	33.513	5.542	14.546	2.782
9/30/10	12:00	22.877	31.755	24.466	33.593	5.552	14.561	2.796
9/30/10	16:00	22.977	31.763	24.432	33.677	5.551	14.555	2.821
9/30/10	20:00	22.952	31.792	24.461	33.685	5.506	14.581	2.839
10/1/10	0:00	22.942	31.828	24.503	33.690	5.496	14.607	2.835
10/1/10	4:00	22.982	31.849	24.516	33.719	5.531	14.613	2.829
10/1/10	8:00	22.997	31.885	24.547	33.740	5.539	14.633	2.825
10/1/10	12:00		31.897	24.541	33.795	5.533		

**Supplement 3:**

**Sample Documentation from TestAmerica Laboratories, Inc.,  
for Groundwater Verification Samples**

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

April 30, 2010

Mr. Clyde Dennis  
Argonne National Laboratory  
9700 S. Cass Avenue  
Building 203, Office B149  
Argonne, IL 60439

Re: Laboratory Project No. 21005  
Case: MORRILL; SDG: 136730

Dear Mr. Dennis:

Enclosed are analytical results for samples that were received by TestAmerica Burlington on April 8<sup>th</sup>, 2010. Laboratory identification numbers were assigned, and designated as follows:

<u>Lab ID</u>	<u>Client Sample ID</u>	<u>Sample Date</u>	<u>Sample Matrix</u>
	Received: 04/08/10 ETR No: 136730		
825418	MRMW4S-W-29986	04/06/10	WATER
825419	MRMW7S-W-29989	04/06/10	WATER
825420	MRMW10S-W-29992	04/06/10	WATER
825421	MRMW1SB-W-29979	04/07/10	WATER
825422	MRMW1SM-W-29980	04/07/10	WATER
825423	MRMW1ST-W-29981	04/07/10	WATER
825424	MRMW1SX-W-29982	04/07/10	WATER
825425	MRQCTB-W-30004	04/07/10	WATER
825426	VHBLK01	04/08/10	WATER

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 Sample Handling section of this submittal. The samples, as received, were not acid preserved. On that basis, the laboratory did provide for the analytical work to be performed within seven days of sample collection.

In order to accommodate field length limitations in processing the data summary forms, the laboratory did, in certain instances, abbreviate the sample identifier. The electronically formatted data provides for the full sample identifier.

**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 of the analyses associated with the sample set exhibited an acceptable internal standard performance, and there was an acceptable recovery of each deuterated monitoring compound (DMC) in each analysis. Matrix spike and matrix spike duplicate analyses were not performed on samples in this sample set. Trace concentrations of acetone and 2-butanone were identified in the analysis of the method blank associated with the analytical work. The concentration of each compound in that analysis was below the established reporting limit, and the analysis did meet the technical acceptance criteria for a compliant method blank analysis. A trace concentration of acetone was identified in the analysis of the storage blank associated with the sample set. The concentration of acetone 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 represented 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 response for each target analyte met the percent difference criterion in the continuing calibration check acquisition. 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-d<sub>6</sub>, 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 in the Sample Preparation section of this submittal.

Any reference within this report to Severn Trent Laboratories, Inc. or STL, should be understood to refer to TestAmerica Laboratories, Inc. (formerly known as Severn Trent Laboratories, Inc.) The analytical results associated with the samples presented in this test report were generated under a quality system that adheres to requirements specified in the NELAC standard. Release of the data in this test report and any associated electronic deliverables is authorized by the Laboratory Director's designee as verified by the following signature.



If there are any questions regarding this submittal, please contact me at 802 660-1990.

Sincerely,

A handwritten signature in black ink, appearing to read "Kirk F. Young". The signature is fluid and stylized, with a long horizontal stroke extending to the right.

Kirk F. Young  
Project Manager

KFY/hsf  
Enclosure

## TestAmerica Burlington Data Qualifier Definitions

### Organic

- U: Compound analyzed but not detected at a concentration above the reporting limit.
- J: Estimated value.
- N: Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds (TICs) where the identification of a compound is based on a mass spectral library search.
- P: SW-846: The relative percent difference for detected concentrations between two GC columns is greater than 40%. Unless otherwise specified the higher of the two values is reported on the Form I.
- CLP SOW: Greater than 25% difference for detected concentrations between two GC columns. Unless otherwise specified the lower of the two values is reported on the Form I.
- C: Pesticide result whose identification has been confirmed by GC/MS.
- B: Analyte is found in the sample and the associated method blank. The flag is used for tentatively identified compounds as well as positively identified compounds.
- E: Compounds whose concentrations exceed the upper limit of the calibration range of the instrument for that specific analysis.
- D: Concentrations identified from analysis of the sample at a secondary dilution.
- A: Tentatively identified compound is a suspected aldol condensation product.
- X,Y,Z: Laboratory defined flags that may be used alone or combined, as needed. If used, the description of the flag is defined in the project narrative.

### Inorganic/Metals

- E: Reported value is estimated due to the presence of interference.
- N: Matrix spike sample recovery is not within control limits.
- \* Duplicate sample analysis is not within control limits.
- B: The result reported is less than the reporting limit but greater than the instrument detection limit.
- U: Analyte was analyzed for but not detected above the reporting limit.

#### Method Codes:

- P ICP-AES  
MS ICP-MS  
CV Cold Vapor AA  
AS Semi-Automated Spectrophotometric

MATRIX: <i>Water</i>		<b>ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*</b>				Shipping Container No.					
RECEIVING LAB: <i>Test America</i>						Shipping Info:					
PROJECT/SITE: <i>Morrill, KS</i>		Number of con- tainers	ANALYSIS				ANL Field Contact (Name & Temporary Phone):				
SAMPLER(S) (Signature) <i>[Signature]</i>			V O C	/				REMARKS			
DATE OF COLLECTION	SAMPLE ID NUMBER(S)										
<i>4-6-2010</i>	<i>MRMW45-W-29986</i>	<i>2</i>	<i>2</i>					<i>2x 40ml for VOC to Test America</i>			
<i>4-6-2010</i>	<i>MRMW75-W-29989</i>	<i>2</i>	<i>2</i>								
<i>4-6-2010</i>	<i>MRMW105-W-29992</i>	<i>2</i>	<i>2</i>								
<i>4-7-2010</i>	<i>MRMW15B-W-29979</i>	<i>2</i>	<i>2</i>								
<i>4-7-2010</i>	<i>MRMW15M-W-29980</i>	<i>2</i>	<i>2</i>								
<i>4-7-2010</i>	<i>MRMW15T-W-29981</i>	<i>2</i>	<i>2</i>								
<i>4-7-2010</i>	<i>MRMW15X-W-29982</i>	<i>2</i>	<i>2</i>								
<i>4-7-2010</i>	<i>MRQCTB-W-30004</i>	<i>2</i>	<i>2</i>						<i>2x 40ml for VOC to Test America</i>		
Relinquished by (Signature) <i>[Signature]</i>		Date <i>4/7/2010</i>	Time <i>16:10</i>	Received by (Signature) <i>[Signature]</i>		Relinquished by (Signature)		Date	Time	Received by (Signature)	
Relinquished by (Signature)		Date	Time	Received for Laboratory by <i>[Signature]</i>		Date <i>04/08/10</i>	Time <i>1020</i>	Remarks			
Y	N	FOR LAB USE ONLY			*A sample is under custody if: 1. It is in your possession; or, 2. It is in your view, after having been in your possession; or, 3. It was in your possession and you locked it up; or, 4. It is in a designated secure area.						
<input checked="" type="checkbox"/>		Custody seal was intact when shipment received.									
<input checked="" type="checkbox"/>		Sample containers were intact when received.									
<input checked="" type="checkbox"/>		Shipment was at required temperature when received.									
	<input checked="" type="checkbox"/>	Sample labels, Tags and COC agree.									

Argonne National Laboratory, Applied Geosciences & Environmental Mgt. Group, Environmental Research Division, 9700 S. Cass Avenue, Argonne, IL 60439

**TestAmerica**

THE LEADER IN ENVIRONMENTAL TESTING

**Sample Data Summary – SOM01.2 Volatiles  
– Trace**



1A - FORM I VOA-1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RMW10SW29992

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRILL Mod. Ref No.: SDG No.: 136730  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 825420  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: 825420  
 Level: (TRACE/LOW/MED) TRACE Date Received: 04/08/2010  
 % Moisture: not dec. Date Analyzed: 04/10/2010  
 GC Column: DB-624 ID: 0.53 (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	0.34	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

1B - FORM I VOA-2  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RMW10SW29992

Lab Name: TESTAMERICA BURLINGTON

Contract: 8E-00302

Lab Code: STLV

Case No.: MORRILL

Mod. Ref No.:

SDG No.: 136730

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: 825420

Sample wt/vol: 25.0 (g/mL) mL

Lab File ID: 825420

Level: (TRACE/LOW/MED) TRACE

Date Received: 04/08/2010

% Moisture: not dec.

Date Analyzed: 04/10/2010

GC Column: DB-624 ID: 0.53 (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		0.91	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.

RMW10SW29992

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRILL Mod. Ref No.: SDG No.: 136730  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 825420  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: 825420  
 Level: (TRACE or LOW/MED) TRACE Date Received: 04/08/2010  
 % Moisture: not dec. Date Analyzed: 04/10/2010  
 GC Column: DB-624 ID: 0.53 (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	7.01	3.0	JXB
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796(1)	Total Alkanes	N/A		

(1)EPA-designated Registry Number.

1A - FORM I VOA-1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RMW1SBW29979

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRILL Mod. Ref No.: SDG No.: 136730  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 825421  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: 825421  
 Level: (TRACE/LOW/MED) TRACE Date Received: 04/08/2010  
 % Moisture: not dec. Date Analyzed: 04/10/2010  
 GC Column: DB-624 ID: 0.53 (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	
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

1B - FORM I VOA-2  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RMW1SBW29979

Lab Name: TESTAMERICA BURLINGTON

Contract: 8E-00302

Lab Code: STLV

Case No.: MORRILL

Mod. Ref No.:

SDG No.: 136730

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: 825421

Sample wt/vol: 25.0 (g/mL) mL

Lab File ID: 825421

Level: (TRACE/LOW/MED) TRACE

Date Received: 04/08/2010

% Moisture: not dec.

Date Analyzed: 04/10/2010

GC Column: DB-624 ID: 0.53 (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		1.3	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		1.3	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.

RMW1SBW29979

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRILL Mod. Ref No.: SDG No.: 136730  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 825421  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: 825421  
 Level: (TRACE or LOW/MED) TRACE Date Received: 04/08/2010  
 % Moisture: not dec. Date Analyzed: 04/10/2010  
 GC Column: DB-624 ID: 0.53 (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	7.01	3.0	JXB
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796(1)	Total Alkanes	N/A		

(1)EPA-designated Registry Number.

1A - FORM I VOA-1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RMW1SMW29980

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRILL Mod. Ref No.: SDG No.: 136730  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 825422  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: 825422  
 Level: (TRACE/LOW/MED) TRACE Date Received: 04/08/2010  
 % Moisture: not dec. Date Analyzed: 04/10/2010  
 GC Column: DB-624 ID: 0.53 (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
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

1B - FORM I VOA-2  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RMW1SMW29980

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRILL Mod. Ref No.: SDG No.: 136730  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 825422  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: 825422  
 Level: (TRACE/LOW/MED) TRACE Date Received: 04/08/2010  
 % Moisture: not dec. Date Analyzed: 04/10/2010  
 GC Column: DB-624 ID: 0.53 (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		0.59	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		1.2	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.

RMW1SMW29980

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRILL Mod. Ref No.: SDG No.: 136730  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 825422  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: 825422  
 Level: (TRACE or LOW/MED) TRACE Date Received: 04/08/2010  
 % Moisture: not dec. Date Analyzed: 04/10/2010  
 GC Column: DB-624 ID: 0.53 (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	7.01	2.9	JXB
02					
03					
04					
05					
06					
07					
08					
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25					
26					
27					
28					
29					
30					
	E966796(1)	Total Alkanes	N/A		

(1)EPA-designated Registry Number.

1A - FORM I VOA-1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RMW1STW29981

Lab Name: TESTAMERICA BURLINGTON

Contract: 8E-00302

Lab Code: STLV

Case No.: MORRILL

Mod. Ref No.:

SDG No.: 136730

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: 825423

Sample wt/vol: 25.0 (g/mL) mL

Lab File ID: 825423

Level: (TRACE/LOW/MED) TRACE

Date Received: 04/08/2010

% Moisture: not dec.

Date Analyzed: 04/10/2010

GC Column: DB-624 ID: 0.53 (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	
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

1B - FORM I VOA-2  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RMW1STW29981

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRILL Mod. Ref No.: SDG No.: 136730  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 825423  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: 825423  
 Level: (TRACE/LOW/MED) TRACE Date Received: 04/08/2010  
 % Moisture: not dec. Date Analyzed: 04/10/2010  
 GC Column: DB-624 ID: 0.53 (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		0.51	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		0.92	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.

RMW1STW29981

Lab Name: TESTAMERICA BURLINGTON

Contract: 8E-00302

Lab Code: STLV Case No.: MORRILL

Mod. Ref No.:

SDG No.: 136730

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: 825423

Sample wt/vol: 25.0 (g/mL) mL

Lab File ID: 825423

Level: (TRACE or LOW/MED) TRACE

Date Received: 04/08/2010

% Moisture: not dec.

Date Analyzed: 04/10/2010

GC Column: DB-624 ID: 0.53 (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	7.01	2.9	JXB
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
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19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796 (1)	Total Alkanes	N/A		

(1) EPA-designated Registry Number.

1A - FORM I VOA-1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RMW1SXW29982

Lab Name: TESTAMERICA BURLINGTON

Contract: 8E-00302

Lab Code: STLV

Case No.: MORRILL

Mod. Ref No.:

SDG No.: 136730

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: 825424

Sample wt/vol: 25.0 (g/mL) mL

Lab File ID: 825424

Level: (TRACE/LOW/MED) TRACE

Date Received: 04/08/2010

% Moisture: not dec.

Date Analyzed: 04/10/2010

GC Column: DB-624 ID: 0.53 (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	
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		1.1	U
71-55-6	1,1,1-Trichloroethane		0.50	U
110-82-7	Cyclohexane		0.50	U
56-23-5	Carbon tetrachloride		18	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

1B - FORM I VOA-2  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RMW1SXW29982

Lab Name: TESTAMERICA BURLINGTON

Contract: 8E-00302

Lab Code: STLV

Case No.: MORRILL

Mod. Ref No.:

SDG No.: 136730

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: 825424

Sample wt/vol: 25.0 (g/mL) mL

Lab File ID: 825424

Level: (TRACE/LOW/MED) TRACE

Date Received: 04/08/2010

% Moisture: not dec.

Date Analyzed: 04/10/2010

GC Column: DB-624 ID: 0.53 (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		0.50	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.

RMW1SXW29982

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
Lab Code: STLV Case No.: MORRILL Mod. Ref No.: SDG No.: 136730  
Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 825424  
Sample wt/vol: 25.0 (g/mL) mL Lab File ID: 825424  
Level: (TRACE or LOW/MED) TRACE Date Received: 04/08/2010  
% Moisture: not dec. Date Analyzed: 04/10/2010  
GC Column: DB-624 ID: 0.53 (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	7.01	2.9	JXB
02				
03				
04				
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25				
26				
27				
28				
29				
30				
E966796 (1)	Total Alkanes	N/A		

(1) EPA-designated Registry Number.

1A - FORM I VOA-1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RMW4SW29986

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRILL Mod. Ref No.: SDG No.: 136730  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 825418  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: 825418  
 Level: (TRACE/LOW/MED) TRACE Date Received: 04/08/2010  
 % Moisture: not dec. Date Analyzed: 04/10/2010  
 GC Column: DB-624 ID: 0.53 (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	
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



1B - FORM I VOA-2  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RMW4SW29986

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRILL Mod. Ref No.: SDG No.: 136730  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 825418  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: 825418  
 Level: (TRACE/LOW/MED) TRACE Date Received: 04/08/2010  
 % Moisture: not dec. Date Analyzed: 04/10/2010  
 GC Column: DB-624 ID: 0.53 (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		0.50	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.

RMW4SW29986

Lab Name: TESTAMERICA BURLINGTON

Contract: 8E-00302

Lab Code: STLV Case No.: MORRILL

Mod. Ref No.:

SDG No.: 136730

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: 825418

Sample wt/vol: 25.0 (g/mL) mL

Lab File ID: 825418

Level: (TRACE or LOW/MED) TRACE

Date Received: 04/08/2010

% Moisture: not dec.

Date Analyzed: 04/10/2010

GC Column: DB-624 ID: 0.53 (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	7.01	2.8	JXB
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796 (1)	Total Alkanes	N/A		

(1) EPA-designated Registry Number.

1A - FORM I VOA-1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RMW7SW29989

Lab Name: TESTAMERICA BURLINGTON

Contract: 8E-00302

Lab Code: STLV

Case No.: MORRILL

Mod. Ref No.:

SDG No.: 136730

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: 825419

Sample wt/vol: 25.0 (g/mL) mL

Lab File ID: 825419

Level: (TRACE/LOW/MED) TRACE

Date Received: 04/08/2010

% Moisture: not dec.

Date Analyzed: 04/10/2010

GC Column: DB-624 ID: 0.53 (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	
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		0.52	
71-55-6	1,1,1-Trichloroethane		0.50	U
110-82-7	Cyclohexane		0.50	U
56-23-5	Carbon tetrachloride		13	
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

1B - FORM I VOA-2  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RMW7SW29989

Lab Name: TESTAMERICA BURLINGTON

Contract: 8E-00302

Lab Code: STLV

Case No.: MORRILL

Mod. Ref No.:

SDG No.: 136730

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: 825419

Sample wt/vol: 25.0 (g/mL) mL

Lab File ID: 825419

Level: (TRACE/LOW/MED) TRACE

Date Received: 04/08/2010

% Moisture: not dec.

Date Analyzed: 04/10/2010

GC Column: DB-624 ID: 0.53 (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		0.50	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		5.0	U
591-78-6	2-Hexanone		0.50	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.

RMW7SW29989

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRILL Mod. Ref No.: SDG No.: 136730  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 825419  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: 825419  
 Level: (TRACE or LOW/MED) TRACE Date Received: 04/08/2010  
 % Moisture: not dec. Date Analyzed: 04/10/2010  
 GC Column: DB-624 ID: 0.53 (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	7.01	2.9	JXB
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796 (1)	Total Alkanes	N/A		

(1) EPA-designated Registry Number.

1A - FORM I VOA-1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RQCTBW30004

Lab Name: TESTAMERICA BURLINGTON

Contract: 8E-00302

Lab Code: STLV

Case No.: MORRILL

Mod. Ref No.:

SDG No.: 136730

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: 825425

Sample wt/vol: 25.0 (g/mL) mL

Lab File ID: 825425

Level: (TRACE/LOW/MED) TRACE

Date Received: 04/08/2010

% Moisture: not dec.

Date Analyzed: 04/10/2010

GC Column: DB-624 ID: 0.53 (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	9.4	B
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	0.91	JB
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	0.52	U
107-06-2	1,2-Dichloroethane	0.50	U

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

1B - FORM I VOA-2  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RQCTBW30004

Lab Name: TESTAMERICA BURLINGTON

Contract: 8E-00302

Lab Code: STLV

Case No.: MORRILL

Mod. Ref No.:

SDG No.: 136730

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: 825425

Sample wt/vol: 25.0 (g/mL) mL

Lab File ID: 825425

Level: (TRACE/LOW/MED) TRACE

Date Received: 04/08/2010

% Moisture: not dec.

Date Analyzed: 04/10/2010

GC Column: DB-624 ID: 0.53 (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		2.2	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		0.21	J
95-47-6	o-Xylene		0.25	J
179601-23-1	m,p-Xylene		0.92	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.

RQCTBW30004

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRILL Mod. Ref No.: SDG No.: 136730  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 825425  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: 825425  
 Level: (TRACE or LOW/MED) TRACE Date Received: 04/08/2010  
 % Moisture: not dec. Date Analyzed: 04/10/2010  
 GC Column: DB-624 ID: 0.53 (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	7.01	2.9	JXB
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796(1)	Total Alkanes	N/A		

(1) EPA-designated Registry Number.



1A - FORM I VOA-1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.  
VBLKJO

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRILL Mod. Ref No.: SDG No.: 136730  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: VBLKJO  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: JAQB02G  
 Level: (TRACE/LOW/MED) TRACE Date Received:  
 % Moisture: not dec. Date Analyzed: 04/10/2010  
 GC Column: DB-624 ID: 0.53 (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	
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	2.6	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	1.3	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

1B - FORM I VOA-2  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKJO

Lab Name: TESTAMERICA BURLINGTON

Contract: 8E-00302

Lab Code: STLV

Case No.: MORRILL

Mod. Ref No.:

SDG No.: 136730

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: VBLKJO

Sample wt/vol: 25.0 (g/mL) mL

Lab File ID: JAQB02G

Level: (TRACE/LOW/MED) TRACE

Date Received:

% Moisture: not dec.

Date Analyzed: 04/10/2010

GC Column: DB-624 ID: 0.53 (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		0.50	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.

VBLKJO

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
Lab Code: STLV Case No.: MORRILL Mod. Ref No.: SDG No.: 136730  
Matrix: (SOIL/SED/WATER) Water Lab Sample ID: VBLKJO  
Sample wt/vol: 25.0 (g/mL) mL Lab File ID: JAQB02G  
Level: (TRACE or LOW/MED) TRACE Date Received:  
% Moisture: not dec. Date Analyzed: 04/10/2010  
GC Column: DB-624 ID: 0.53 (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	7.01	2.9	JX
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30	E966796(1)	Total Alkanes	N/A		

(1) EPA-designated Registry Number.

1A - FORM I VOA-1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VHBLK01

Lab Name: TESTAMERICA BURLINGTON

Contract: 8E-00302

Lab Code: STLV

Case No.: MORRILL

Mod. Ref No.:

SDG No.: 136730

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: 825426

Sample wt/vol: 25.0 (g/mL) mL

Lab File ID: 825426

Level: (TRACE/LOW/MED) TRACE

Date Received:

% Moisture: not dec.

Date Analyzed: 04/10/2010

GC Column: DB-624 ID: 0.53 (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	
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		1.3	JB
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

1B - FORM I VOA-2  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VHBLK01

Lab Name: TESTAMERICA BURLINGTON

Contract: 8E-00302

Lab Code: STLV

Case No.: MORRILL

Mod. Ref No.:

SDG No.: 136730

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: 825426

Sample wt/vol: 25.0 (g/mL) mL

Lab File ID: 825426

Level: (TRACE/LOW/MED) TRACE

Date Received:

% Moisture: not dec.

Date Analyzed: 04/10/2010

GC Column: DB-624 ID: 0.53 (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.: MORRILL Mod. Ref No.: SDG No.: 136730  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 825426  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: 825426  
 Level: (TRACE or LOW/MED) TRACE Date Received:  
 % Moisture: not dec. Date Analyzed: 04/10/2010  
 GC Column: DB-624 ID: 0.53 (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	7.01	2.8	JXB
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796 (1)	Total Alkanes	N/A		

(1) EPA-designated Registry Number.

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

Lab Name: TESTAMERICA BURLINGTON

Contract: 8E-00302

Lab Code: STLV Case No.: MORRILL Mod. Ref No.:

SDG No.: 136730

Level: (TRACE or LOW) TRACE

	EPA SAMPLE NO.	VDMC1 (VCL)#	VDMC2 (CLA)#	VDMC3 (DCE)#	VDMC4 (BUT)#	VDMC5 (CLF)#	VDMC6 (DCA)#	VDMC7 (BEN)#
01	VBLKJO	94	99	76	88	94	95	97
02	RMW4SW29986	85	92	73	107	88	93	97
03	RMW7SW29989	88	96	75	117	94	97	99
04	RMW10SW29992	88	98	75	118	93	96	99
05	RMW1SBW29979	87	96	73	116	92	96	98
06	RMW1SMW29980	87	95	74	106	91	95	100
07	RMW1STW29981	84	94	73	103	90	94	97
08	RMW1SXW29982	87	96	75	112	92	95	96
09	RQCTBW30004	87	96	74	85	92	95	96
10	VHBLK01	85	95	73	83	90	95	96
11								
12								
13								
14								
15								
16								
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27								
28								
29								
30								

QC LIMITS

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.: MORRILL

Mod. Ref No.:

SDG No.: 136730

Level: (TRACE or LOW) TRACE

	EPA SAMPLE NO.	VDMC8 (DPA) #	VDMC9 (TOL) #	VDMC10 (TDP) #	VDMC11 (HEX) #	VDMC12 (TCA) #	VDMC13 (DCZ) #	VDMC14 ( ) #	TOT OUT
01	VBLKJO	84	98	94	83	91	96		0
02	RMW4SW29986	83	98	94	99	88	94		0
03	RMW7SW29989	86	101	96	109	91	97		0
04	RMW10SW29992	86	101	96	108	91	98		0
05	RMW1SBW29979	86	99	97	103	90	97		0
06	RMW1SMW29980	87	100	95	100	94	99		0
07	RMW1STW29981	84	97	95	96	91	96		0
08	RMW1SXW29982	86	99	94	102	94	98		0
09	RQCTBW30004	84	96	93	84	89	96		0
10	VHBLK01	83	96	92	82	87	96		0
11									
12									
13									
14									
15									
16									
17									
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20									
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24									
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27									
28									
29									
30									

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.  
VBLKJO

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRILL Mod. Ref No.: SDG No.: 136730  
 Lab File ID: JAQB02G Lab Sample ID: VBLKJO  
 Instrument ID: J.i  
 Matrix: (SOIL/SED/WATER) Water Date Analyzed: 04/10/2010  
 Level: (TRACE or LOW/MED) TRACE Time Analyzed: 1042  
 GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
01	RMW4SW29986	825418	825418	1339
02	RMW7SW29989	825419	825419	1405
03	RMW10SW29992	825420	825420	1432
04	RMW1SBW29979	825421	825421	1459
05	RMW1SMW29980	825422	825422	1525
06	RMW1STW29981	825423	825423	1552
07	RMW1SXW29982	825424	825424	1619
08	RQCTBW30004	825425	825425	1712
09	VHBLK01	825426	825426	1739
10				
11				
12				
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30				

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_

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

EPA SAMPLE NO.  BFBJG
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Lab Name: TESTAMERICA BURLINGTON                      Contract: 8E-00302  
Lab Code: STLV      Case No.: MORRILL      Mod. Ref No.:                      SDG No.: 136730  
Lab File ID: JAQ01PV                                      BFB Injection Date: 04/05/2010  
Instrument ID: J.i    BFB Injection Time: 1223  
GC Column: DB-624              ID: 0.53              (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.0
75	30.0 - 80.0% of mass 95	48.7
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.0
173	Less than 2.0% of mass 174	0.0 ( 0.0)1
174	50.0 - 120.0% of mass 95	66.9
175	5.0 - 9.0% of mass 174	6.0 ( 8.9)1
176	95.0 - 101.0% of mass 174	66.3 ( 99.2)1
177	5.0 - 9.0% of mass 176	4.5 ( 6.8)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	VSTD0.5JG	VSTD0.5JG	JAQ0005V	04/05/2010 1318
02	VSTD001JG	VSTD001JG	JAQ001V	04/05/2010 1345
03	VSTD005JG	VSTD005JG	JAQ005V	04/05/2010 1412
04	VSTD010JG	VSTD010JG	JAQ010V	04/05/2010 1438
05	VSTD020JG	VSTD020JG	JAQ020V	04/05/2010 1505
06				
07				
08				
09				
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18				
19				
20				
21				
22				

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

EPA SAMPLE NO.  
BFBJO

Lab Name: TESTAMERICA BURLINGTON      Contract: 8E-00302  
 Lab Code: STLV      Case No.: MORRILL      Mod. Ref No.:      SDG No.: 136730  
 Lab File ID: JAQ16PV      BFB Injection Date: 04/10/2010  
 Instrument ID: J.i      BFB Injection Time: 0920  
 GC Column: DB-624      ID: 0.53      (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.1
75	30.0 - 80.0% of mass 95	48.8
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.2 ( 0.2)1
174	50.0 - 120.0% of mass 95	65.8
175	5.0 - 9.0% of mass 174	5.8 ( 8.9)1
176	95.0 - 101.0% of mass 174	64.1 ( 97.4)1
177	5.0 - 9.0% of mass 176	4.9 ( 7.7)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	VSTD005JO	JAQ005GV	04/10/2010	1015
02	VBLKJO	JAQB02G	04/10/2010	1042
03	RMW4SW29986	825418	04/10/2010	1339
04	RMW7SW29989	825419	04/10/2010	1405
05	RMW10SW29992	825420	04/10/2010	1432
06	RMW1SBW29979	825421	04/10/2010	1459
07	RMW1SMW29980	825422	04/10/2010	1525
08	RMW1STW29981	825423	04/10/2010	1552
09	RMW1SXW29982	825424	04/10/2010	1619
10	RQCTBW30004	825425	04/10/2010	1712
11	VHBLK01	825426	04/10/2010	1739
12	VSTD0050J	JAQ05GC1	04/10/2010	1925
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

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

Lab Name: TESTAMERICA BURLINGTON      Contract: 8E-00302  
 Lab Code: STLV      Case No.: MORRILL      Mod. Ref No.:      SDG No.: 136730  
 Instrument ID: J.i      Calibration Date(s): 04/05/2010 04/05/2010  
 Heated Purge: (Y/N)N      Calibration Time(s): 1318      1505  
 Purge Volume: 25.0      (mL)  
 GC Column: DB-624      ID: 0.53      (mm)      Length: 75      (m)

LAB FILE ID:	RRF0.5 = JAQ0005V	RRF1.0 = JAQ001V	RRF5.0 = JAQ005V	RRF10 = JAQ010V	RRF20 = JAQ020V		
COMPOUND	RRF0.5	RRF1.0	RRF5.0	RRF10	RRF20	RRF	%RSD
Dichlorodifluoromethane	0.457	0.437	0.408	0.407	0.415	0.425	5.1
Chloromethane	0.462	0.439	0.449	0.448	0.455	0.451	1.9
Vinyl chloride	0.488	0.458	0.442	0.443	0.442	0.454	4.4
Bromomethane	0.187	0.173	0.161	0.165	0.170	0.171	5.8
Chloroethane	0.273	0.279	0.254	0.254	0.254	0.263	4.6
Trichlorofluoromethane	0.524	0.522	0.507	0.501	0.502	0.511	2.2
1,1-Dichloroethene	0.320	0.313	0.300	0.296	0.301	0.306	3.3
1,1,2-Trichloro- 1,2,2-trifluoroethane	0.348	0.330	0.315	0.310	0.314	0.323	4.8
Acetone	0.016	0.015	0.013	0.013	0.013	0.014	10.1
Carbon disulfide	1.128	0.982	0.959	0.931	0.933	0.986	8.3
Methyl acetate	0.067	0.054	0.048	0.047	0.047	0.053	16.1
Methylene chloride	0.262	0.252	0.250	0.242	0.246	0.250	3.0
trans-1,2-Dichloroethene	0.336	0.344	0.321	0.313	0.314	0.326	4.3
Methyl tert-butyl ether	0.403	0.409	0.394	0.383	0.395	0.397	2.5
1,1-Dichloroethane	0.606	0.610	0.595	0.588	0.584	0.597	1.9
cis-1,2-Dichloroethene	0.328	0.321	0.316	0.305	0.308	0.316	3.0
2-Butanone	0.029	0.028	0.027	0.027	0.028	0.028	3.2
Bromochloromethane	0.093	0.092	0.091	0.086	0.087	0.090	3.5
Chloroform	0.531	0.499	0.491	0.488	0.493	0.500	3.5
1,1,1-Trichloroethane	0.663	0.647	0.610	0.604	0.599	0.625	4.6
Cyclohexane	0.995	0.891	0.871	0.854	0.838	0.890	7.0
Carbon tetrachloride	0.554	0.529	0.509	0.510	0.507	0.522	3.8
Benzene	1.911	1.904	1.793	1.765	1.725	1.820	4.6
1,2-Dichloroethane	0.215	0.208	0.206	0.200	0.199	0.206	3.1
Trichloroethene	0.440	0.432	0.423	0.420	0.419	0.427	2.1
Methylcyclohexane	0.708	0.715	0.665	0.662	0.646	0.679	4.5

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.: MORRILL      Mod. Ref No.:      SDG No.: 136730  
 Instrument ID: J.i      Calibration Date(s): 04/05/2010 04/05/2010  
 Heated Purge: (Y/N)N      Calibration Time(s): 1318      1505  
 Purge Volume: 25.0      (mL)  
 GC Column: DB-624      ID: 0.53      (mm)      Length: 75      (m)

LAB FILE ID:		RRF0.5 = JAQ0005V		RRF1.0 = JAQ001V			
RRF5.0 = JAQ005V		RRF10 = JAQ010V		RRF20 = JAQ020V			
COMPOUND	RRF0.5	RRF1.0	RRF5.0	RRF10	RRF20	RRF	%RSD
1,2-Dichloropropane	0.395	0.375	0.374	0.364	0.359	0.373	3.8
Bromodichloromethane	0.404	0.377	0.383	0.382	0.386	0.386	2.6
cis-1,3-Dichloropropene	0.507	0.506	0.496	0.496	0.495	0.500	1.2
4-Methyl-2-pentanone	0.096	0.098	0.097	0.095	0.097	0.096	1.0
Toluene	2.055	1.965	1.891	1.836	1.831	1.916	4.9
trans-1,3-Dichloropropene	0.343	0.336	0.348	0.343	0.345	0.343	1.3
1,1,2-Trichloroethane	0.145	0.173	0.157	0.153	0.153	0.156	6.6
Tetrachloroethene	0.361	0.353	0.329	0.327	0.329	0.340	4.6
2-Hexanone	0.059	0.062	0.061	0.061	0.062	0.061	2.0
Dibromochloromethane	0.180	0.177	0.185	0.180	0.186	0.182	2.1
1,2-Dibromoethane	0.139	0.136	0.137	0.136	0.136	0.137	1.1
Chlorobenzene	1.030	1.037	1.003	0.993	1.006	1.014	1.9
Ethylbenzene	2.210	2.158	2.092	2.087	2.091	2.128	2.6
o-Xylene	0.780	0.732	0.712	0.713	0.711	0.730	4.0
m,p-Xylene	0.804	0.815	0.785	0.777	0.783	0.793	2.0
Styrene	1.065	1.065	1.069	1.071	1.078	1.070	0.5
Bromoform	0.173	0.191	0.197	0.198	0.195	0.191	5.4
Isopropylbenzene	2.046	2.083	2.024	2.024	2.025	2.040	1.3
1,1,2,2-Tetrachloroethane	0.144	0.152	0.144	0.147	0.146	0.147	2.1
1,3-Dichlorobenzene	1.688	1.654	1.599	1.626	1.601	1.634	2.3
1,4-Dichlorobenzene	1.655	1.589	1.520	1.528	1.510	1.560	3.9
1,2-Dichlorobenzene	1.282	1.238	1.179	1.183	1.162	1.209	4.1
1,2-Dibromo-3-chloropropane	0.063	0.052	0.044	0.045	0.044	0.050	16.8
1,2,4-Trichlorobenzene	0.546	0.549	0.542	0.558	0.571	0.553	2.1
1,2,3-Trichlorobenzene	0.323	0.373	0.373	0.381	0.396	0.369	7.5

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

Lab Name: TESTAMERICA BURLINGTON      Contract: 8E-00302  
 Lab Code: STLV      Case No.: MORRILL      Mod. Ref No.:      SDG No.: 136730  
 Instrument ID: J.i      Calibration Date(s): 04/05/2010 04/05/2010  
 Heated Purge: (Y/N)N      Calibration Time(s): 1318      1505  
 Purge Volume: 25.0      (mL)  
 GC Column: DB-624      ID: 0.53      (mm)      Length: 75      (m)

LAB FILE ID:		RRF0.5 = JAQ0005V	RRF1.0 = JAQ001V				
RRF5.0 = JAQ005V		RRF10 = JAQ010V	RRF20 = JAQ020V				
COMPOUND	RRF0.5	RRF1.0	RRF5.0	RRF10	RRF20	RRF	%RSD
Vinyl chloride-d3	0.452	0.420	0.399	0.389	0.396	0.411	6.2
Chloroethane-d5	0.316	0.320	0.304	0.305	0.305	0.310	2.4
1,1-Dichloroethene-d2	0.724	0.703	0.670	0.657	0.660	0.683	4.3
2-Butanone-d5	0.026	0.027	0.027	0.027	0.028	0.027	2.3
Chloroform-d	0.571	0.539	0.540	0.525	0.528	0.541	3.3
1,2-Dichloroethane-d4	0.172	0.176	0.167	0.165	0.165	0.169	3.0
Benzene-d6	1.846	1.824	1.730	1.708	1.689	1.760	4.0
1,2-Dichloropropane-d6	0.539	0.500	0.497	0.481	0.478	0.499	4.9
Toluene-d8	1.627	1.628	1.563	1.556	1.543	1.583	2.6
trans-1,3-Dichloropropene-d4	0.319	0.311	0.304	0.309	0.315	0.312	1.9
2-Hexanone-d5	0.032	0.033	0.034	0.034	0.034	0.033	2.9
1,1,2,2-Tetrachloroethane-d2	0.158	0.156	0.148	0.146	0.149	0.151	3.2
1,2-Dichlorobenzene-d4	0.774	0.783	0.759	0.761	0.744	0.764	1.9

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.: MORRILL Mod. Ref No.: SDG No.: 136730  
 Instrument ID: J.i Calibration Date: 04/10/2010 Time: 1015  
 Lab File ID: JAQ005GV Init. Calib. Date(s): 04/05/2010 04/05/2010  
 EPA Sample No. (VSTD#####): VSTD005JO Init. Calib. Time(s): 1318 1505  
 Heated Purge: (Y/N)N GC Column: DB-624 ID: 0.53 (mm) Length: 75 (m)  
 Purge Volume: 25.0 (mL)

COMPOUND	RRF	RRF5.0	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.425	0.427	0.010	0.6	40.0
Chloromethane	0.451	0.479	0.010	6.4	40.0
Vinyl chloride	0.454	0.477	0.100	4.9	30.0
Bromomethane	0.171	0.185	0.100	7.8	30.0
Chloroethane	0.263	0.268	0.010	2.0	40.0
Trichlorofluoromethane	0.511	0.523	0.010	2.2	40.0
1,1-Dichloroethene	0.306	0.305	0.100	-0.2	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	0.323	0.333	0.010	2.9	40.0
Acetone	0.014	0.012	0.010	-15.6	40.0
Carbon disulfide	0.986	0.977	0.010	-1.0	40.0
Methyl acetate	0.053	0.046	0.010	-12.3	40.0
Methylene chloride	0.250	0.240	0.010	-4.2	40.0
trans-1,2-Dichloroethene	0.326	0.333	0.010	2.4	40.0
Methyl tert-butyl ether	0.397	0.356	0.010	-10.2	40.0
1,1-Dichloroethane	0.597	0.611	0.200	2.4	30.0
cis-1,2-Dichloroethene	0.316	0.313	0.010	-0.8	40.0
2-Butanone	0.028	0.024	0.010	-13.6	40.0
Bromochloromethane	0.090	0.087	0.050	-2.4	30.0
Chloroform	0.500	0.509	0.200	1.7	30.0
1,1,1-Trichloroethane	0.625	0.644	0.100	3.1	30.0
Cyclohexane	0.890	0.933	0.010	4.8	40.0
Carbon tetrachloride	0.522	0.543	0.100	4.1	30.0
Benzene	1.820	1.838	0.400	1.0	30.0
1,2-Dichloroethane	0.206	0.203	0.100	-1.3	30.0
Trichloroethene	0.427	0.442	0.300	3.6	30.0
Methylcyclohexane	0.679	0.716	0.010	5.4	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.: MORRILL Mod. Ref No.: SDG No.: 136730  
 Instrument ID: J.i Calibration Date: 04/10/2010 Time: 1015  
 Lab File ID: JAQ005GV Init. Calib. Date(s): 04/05/2010 04/05/2010  
 EPA Sample No. (VSTD#####): VSTD005JO Init. Calib. Time(s): 1318 1505  
 Heated Purge: (Y/N)N GC Column: DB-624 ID: 0.53 (mm) Length: 75 (m)  
 Purge Volume: 25.0 (mL)

COMPOUND	RRF	RRF5.0	MIN RRF	%D	MAX %D
1,2-Dichloropropane	0.373	0.370	0.010	-0.8	40.0
Bromodichloromethane	0.386	0.380	0.200	-1.6	30.0
cis-1,3-Dichloropropene	0.500	0.497	0.200	-0.6	30.0
4-Methyl-2-pentanone	0.096	0.089	0.010	-7.2	40.0
Toluene	1.916	1.932	0.400	0.9	30.0
trans-1,3-Dichloropropene	0.343	0.336	0.100	-1.9	30.0
1,1,2-Trichloroethane	0.156	0.152	0.100	-2.7	30.0
Tetrachloroethene	0.340	0.361	0.100	6.3	30.0
2-Hexanone	0.061	0.057	0.010	-6.7	40.0
Dibromochloromethane	0.182	0.180	0.100	-1.0	30.0
1,2-Dibromoethane	0.137	0.132	0.010	-3.7	30.0
Chlorobenzene	1.014	1.013	0.500	-0.0	30.0
Ethylbenzene	2.128	2.168	0.100	1.9	30.0
o-Xylene	0.730	0.731	0.300	0.2	30.0
m,p-Xylene	0.793	0.817	0.300	3.0	30.0
Styrene	1.070	1.077	0.300	0.7	30.0
Bromoform	0.191	0.186	0.050	-2.6	30.0
Isopropylbenzene	2.040	2.122	0.010	4.0	40.0
1,1,2,2-Tetrachloroethane	0.147	0.132	0.100	-9.9	30.0
1,3-Dichlorobenzene	1.634	1.618	0.400	-0.9	30.0
1,4-Dichlorobenzene	1.560	1.531	0.400	-1.9	30.0
1,2-Dichlorobenzene	1.209	1.162	0.400	-3.9	30.0
1,2-Dibromo-3-chloropropane	0.050	0.040	0.010	-19.5	40.0
1,2,4-Trichlorobenzene	0.553	0.525	0.200	-5.0	30.0
1,2,3-Trichlorobenzene	0.369	0.346	0.200	-6.4	30.0



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

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRILL Mod. Ref No.: SDG No.: 136730  
 Instrument ID: J.i Calibration Date: 04/10/2010 Time: 1015  
 Lab File ID: JAQ005GV Init. Calib. Date(s): 04/05/2010 04/05/2010  
 EPA Sample No. (VSTD#####): VSTD005JO Init. Calib. Time(s): 1318 1505  
 Heated Purge: (Y/N)N GC Column: DB-624 ID: 0.53 (mm) Length: 75 (m)  
 Purge Volume: 25.0 (mL)

COMPOUND	RRF	RRF5.0	MIN RRF	%D	MAX %D
Vinyl chloride-d3	0.411	0.417	0.010	1.4	30.0
Chloroethane-d5	0.310	0.325	0.010	4.9	40.0
1,1-Dichloroethene-d2	0.683	0.704	0.010	3.1	30.0
2-Butanone-d5	0.027	0.023	0.010	-14.0	40.0
Chloroform-d	0.541	0.533	0.010	-1.5	30.0
1,2-Dichloroethane-d4	0.169	0.160	0.010	-5.1	30.0
Benzene-d6	1.760	1.784	0.400	1.4	30.0
1,2-Dichloropropane-d6	0.499	0.440	0.010	-11.8	40.0
Toluene-d8	1.583	1.623	0.010	2.5	30.0
trans-1,3-Dichloropropene-d4	0.312	0.304	0.010	-2.4	30.0
2-Hexanone-d5	0.033	0.028	0.010	-16.9	40.0
1,1,2,2-Tetrachloroethane-d2	0.151	0.137	0.010	-9.5	30.0
1,2-Dichlorobenzene-d4	0.764	0.755	0.010	-1.1	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.: MORRILL      Mod. Ref No.:      SDG No.: 136730  
 Instrument ID: J.i      Calibration Date: 04/10/2010 Time: 1925  
 Lab File ID: JAQ05GC1      Init. Calib. Date(s): 04/05/2010 04/05/2010  
 EPA Sample No.(VSTD#####): VSTD0050J      Init. Calib. Time(s): 1318      1505  
 Heated Purge: (Y/N)N      GC Column: DB-624      ID: 0.53      (mm) Length: 75      (m)  
 Purge Volume: 25.0      (mL)

COMPOUND	RRF	RRF5.0	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.425	0.414	0.010	-2.4	50.0
Chloromethane	0.451	0.491	0.010	9.0	50.0
Vinyl chloride	0.454	0.479	0.010	5.4	50.0
Bromomethane	0.171	0.177	0.010	3.2	50.0
Chloroethane	0.263	0.271	0.010	3.1	50.0
Trichlorofluoromethane	0.511	0.516	0.010	1.0	50.0
1,1-Dichloroethene	0.306	0.312	0.010	2.0	50.0
1,1,2-Trichloro-1,2,2-trifluoroethane	0.323	0.328	0.010	1.5	50.0
Acetone	0.014	0.013	0.010	-11.0	50.0
Carbon disulfide	0.986	0.952	0.010	-3.4	50.0
Methyl acetate	0.053	0.045	0.010	-14.5	50.0
Methylene chloride	0.250	0.247	0.010	-1.2	50.0
trans-1,2-Dichloroethene	0.326	0.327	0.010	0.4	50.0
Methyl tert-butyl ether	0.397	0.353	0.010	-11.0	50.0
1,1-Dichloroethane	0.597	0.612	0.010	2.6	50.0
cis-1,2-Dichloroethene	0.316	0.310	0.010	-1.7	50.0
2-Butanone	0.028	0.025	0.010	-10.1	50.0
Bromochloromethane	0.090	0.086	0.010	-3.4	50.0
Chloroform	0.500	0.509	0.010	1.8	50.0
1,1,1-Trichloroethane	0.625	0.654	0.010	4.7	50.0
Cyclohexane	0.890	0.936	0.010	5.1	50.0
Carbon tetrachloride	0.522	0.549	0.010	5.2	50.0
Benzene	1.820	1.855	0.010	1.9	50.0
1,2-Dichloroethane	0.206	0.201	0.010	-2.1	50.0
Trichloroethene	0.427	0.447	0.010	4.9	50.0
Methylcyclohexane	0.679	0.725	0.010	6.8	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.: MORRILL Mod. Ref No.: SDG No.: 136730  
 Instrument ID: J.i Calibration Date: 04/10/2010 Time: 1925  
 Lab File ID: JAQ05GC1 Init. Calib. Date(s): 04/05/2010 04/05/2010  
 EPA Sample No. (VSTD#####): VSTD0050J Init. Calib. Time(s): 1318 1505  
 Heated Purge: (Y/N)N GC Column: DB-624 ID: 0.53 (mm) Length: 75 (m)  
 Purge Volume: 25.0 (mL)

COMPOUND	RRF	RRF5.0	MIN RRF	%D	MAX %D
1,2-Dichloropropane	0.373	0.375	0.010	0.4	50.0
Bromodichloromethane	0.386	0.380	0.010	-1.5	50.0
cis-1,3-Dichloropropene	0.500	0.501	0.010	0.3	50.0
4-Methyl-2-pentanone	0.096	0.092	0.010	-4.5	50.0
Toluene	1.916	1.951	0.010	1.9	50.0
trans-1,3-Dichloropropene	0.343	0.336	0.010	-2.0	50.0
1,1,2-Trichloroethane	0.156	0.154	0.010	-1.6	50.0
Tetrachloroethene	0.340	0.352	0.010	3.6	50.0
2-Hexanone	0.061	0.058	0.010	-4.7	50.0
Dibromochloromethane	0.182	0.178	0.010	-2.1	50.0
1,2-Dibromoethane	0.137	0.130	0.010	-4.8	50.0
Chlorobenzene	1.014	1.028	0.010	1.4	50.0
Ethylbenzene	2.128	2.182	0.010	2.6	50.0
o-Xylene	0.730	0.729	0.010	-0.1	50.0
m,p-Xylene	0.793	0.814	0.010	2.7	50.0
Styrene	1.070	1.089	0.010	1.8	50.0
Bromoform	0.191	0.184	0.010	-3.6	50.0
Isopropylbenzene	2.040	2.118	0.010	3.8	50.0
1,1,2,2-Tetrachloroethane	0.147	0.135	0.010	-8.0	50.0
1,3-Dichlorobenzene	1.634	1.612	0.010	-1.3	50.0
1,4-Dichlorobenzene	1.560	1.531	0.010	-1.9	50.0
1,2-Dichlorobenzene	1.209	1.157	0.010	-4.3	50.0
1,2-Dibromo-3-chloropropane	0.050	0.044	0.010	-11.6	50.0
1,2,4-Trichlorobenzene	0.553	0.533	0.010	-3.6	50.0
1,2,3-Trichlorobenzene	0.369	0.359	0.010	-2.6	50.0

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

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRILL Mod. Ref No.: SDG No.: 136730  
 Instrument ID: J.i Calibration Date: 04/10/2010 Time: 1925  
 Lab File ID: JAQ05GC1 Init. Calib. Date(s): 04/05/2010 04/05/2010  
 EPA Sample No. (VSTD#####): VSTD0050J Init. Calib. Time(s): 1318 1505  
 Heated Purge: (Y/N)N GC Column: DB-624 ID: 0.53 (mm) Length: 75 (m)  
 Purge Volume: 25.0 (mL)

COMPOUND	RRF	RRF5.0	MIN RRF	%D	MAX %D
Vinyl chloride-d3	0.411	0.424	0.010	3.2	50.0
Chloroethane-d5	0.310	0.324	0.010	4.4	50.0
1,1-Dichloroethene-d2	0.683	0.696	0.010	1.9	50.0
2-Butanone-d5	0.027	0.025	0.010	-8.5	50.0
Chloroform-d	0.541	0.543	0.010	0.3	50.0
1,2-Dichloroethane-d4	0.169	0.163	0.010	-3.7	50.0
Benzene-d6	1.760	1.790	0.010	1.7	50.0
1,2-Dichloropropane-d6	0.499	0.498	0.010	-0.1	50.0
Toluene-d8	1.583	1.628	0.010	2.8	50.0
trans-1,3-Dichloropropene-d4	0.312	0.300	0.010	-3.8	50.0
2-Hexanone-d5	0.033	0.030	0.010	-10.5	50.0
1,1,2,2-Tetrachloroethane-d2	0.151	0.144	0.010	-4.7	50.0
1,2-Dichlorobenzene-d4	0.764	0.759	0.010	-0.6	50.0

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

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

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRILL Mod. Ref No.: SDG No.: 136730  
 GC Column: DB-624 ID: 0.53 (mm) Init. Calib. Date(s): 04/05/2010 04/05/2010  
 EPA Sample No. (VSTD#####): VSTD005JO Date Analyzed: 04/10/2010  
 Lab File ID (Standard): JAQ005GV Time Analyzed: 1015  
 Instrument ID: J.i Heated Purge: (Y/N) N

	IS1 (CBZ)	RT #	IS2 (DFB)	RT #	IS3 (DCB)	RT #
	AREA #		AREA #		AREA #	
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	760486	9.06	1009953	5.67	305122	11.89
UPPER LIMIT	1064680	9.39	1413934	6.01	427171	12.23
LOWER LIMIT	456292	8.72	605972	5.34	183073	11.56
=====	=====	=====	=====	=====	=====	=====
EPA SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 VBLKJO	758797	9.06	998354	5.68	298160	11.89
02 RMW4SW29986	753607	9.06	1027668	5.68	296861	11.89
03 RMW7SW29989	742275	9.06	999687	5.68	292639	11.89
04 RMW10SW29992	755888	9.06	1016926	5.68	287401	11.89
05 RMW1SBW29979	747571	9.06	1006187	5.67	295838	11.89
06 RMW1SMW29980	730392	9.06	991512	5.68	293964	11.89
07 RMW1STW29981	770896	9.06	1031675	5.68	301862	11.89
08 RMW1SXW29982	741431	9.06	991209	5.68	290820	11.89
09 RQCTBW30004	751999	9.06	990503	5.68	295952	11.89
10 VHBLK01	747163	9.06	1000267	5.67	293014	11.89
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

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

AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of internal standard area  
 AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of internal standard area  
 RT UPPER LIMIT = + 0.50 (Low-Medium Volatiles) and + 0.33 (Trace Volatiles) minutes of internal standard RT  
 RT LOWER LIMIT = - 0.50 (Low-Medium Volatiles) and - 0.33 (Trace Volatiles) minutes of internal standard RT

## CASE NARRATIVE

**Client: Argonne National Laboratory**

**Project: Morrill (200-1702)**

**Report Number: 200-1702-1**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed.

Calculations are 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 9/24/2010. 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 Sample Handling section of this submittal. The samples, as received, were not acid preserved. On that basis, the laboratory did provide for the analytical work to be performed within seven days of sample collection.

Sample MRISCH-W-30022 was not listed on the chain-of-custody record that was received with the samples. The sample was logged in for analysis using the information from the label on the sample container(s). Four 20 mL volumes were received for the referenced sample.

### **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.

Sample MRMW3S-W-30013 was analyzed at a dilution based on the results of preliminary screening. An additional, more concentrated analysis was performed on the sample in order to provide for a lower reporting limit for those compounds that were not identified in the primary analysis. An additional, dilution analysis was performed on sample MRMW11S-W-30021 in order to provide for quantification within the range of calibrated instrument response. Both sets of results for the analysis of samples MRMW3S-W-30013 and MRMW11S-W-30021 are included in this submittal.

With the exception of the more concentrated analysis that was performed on sample MRMW11S-W-30021, each of the analyses associated with the sample set exhibited an acceptable internal standard performance. The referenced analysis did exhibit a low response for 1,4-dichlorobenzene- $d_6$ . There was an acceptable recovery of each deuterated monitoring compound (DMC) in the analysis of the method blanks 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. To varying extent, trace concentrations of acetone, carbon disulfide, and 1,2,3-trichlorobenzene were identified in the analysis of the method blanks associated with the analytical work. The concentration of each compound in each analysis was below the established reporting limit, and each analysis did meet the technical acceptance criteria for a compliant method blank analysis. Trace concentrations of acetone and carbon disulfide were identified in the analysis of the storage blank associated with the sample set. The concentration each compound 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.

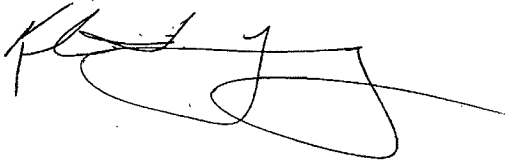
With the exception of that for bromomethane, the responses for each of the target analytes met the relative standard deviation criterion in the initial calibration. The relative standard deviation of the responses for bromomethane was 20.2 percent. Although above the 20.0 percent criterion established for that compound, the initial calibration did meet the technical acceptance criteria for a compliant initial calibration. The response for each target analyte met the percent difference criterion in the continuing calibration check acquisition. 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- $d_6$ , 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 in the Sample Preparation section of this submittal.

The analytical results associated with the samples presented in this test report were generated under a quality system that adheres to requirements specified in the NELAC standard. Release of the data in this test report and any associated electronic deliverables is authorized by the

Laboratory Director's designee as verified by the following signature.

A handwritten signature in black ink, appearing to read 'Kirk F. Young', written in a cursive style.

Kirk F. Young  
Project Manager



MATRIX: <i>Water</i>		<b>ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*</b>				Shipping Container No.	
RECEIVING LAB: <i>Test America</i>						Shipping Info:	
PROJECT/SITE: <i>Merrill, KS</i>		ANALYSIS				ANL Field Contact (Name & Temporary Phone):	
SAMPLER(S) (Signature) <i>Mark Hill</i>						Number of containers	
DATE OF COLLECTION	SAMPLE ID NUMBER(S)	V	O	C			
<i>9-23-2010</i>	<i>MRMW35-W-30013</i>	<i>2</i>	<i>2</i>	<i>2</i>	<i>2x40ml for VOC to Test America</i>		
	<i>MRMW65-W-30016</i>	<i>2</i>	<i>2</i>	<i>2</i>			
	<i>MRMW75-W-30017</i>	<i>2</i>	<i>2</i>	<i>2</i>			
	<i>MRMW115-W-30021</i>	<i>2</i>	<i>2</i>	<i>2</i>			
<i>9-23-2010</i>	<i>MRQCTB-W-30032</i>	<i>2</i>	<i>2</i>	<i>2</i>	<i>2x40ml for VOC to Test America</i>		
Relinquished by (Signature) <i>Mark Hill</i>		Date <i>9/23/2010</i>	Time <i>17:37</i>	Received by (Signature) <i>[Signature]</i>	Date <i>9/24/10</i>	Time	Received by (Signature)
Relinquished by (Signature)		Date	Time	Received for Laboratory by	Date	Time	Remarks
Y	N	FOR LAB USE ONLY			*A sample is under custody if: 1. It is in your possession; or, 2. It is in your view, after having been in your possession; or, 3. It was in your possession and you locked it up; or, 4. It is in a designated secure area.		
		Custody seal was intact when shipment received.					
		Sample containers were intact when received.					
		Shipment was at required temperature when received.					
		Sample labels, Tags and COC agree.					
Argonne National Laboratory, Applied Geosciences & Environmental Mgt. Group, Environmental Research Division, 9700 S. Cass Avenue, Argonne, IL 60439							

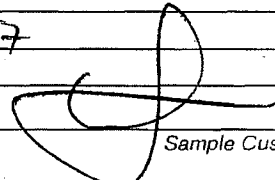
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**Wilmington Facility**  
**Internal Chain of Custody Log (ICOC)**

Project Information:

LOG-IN NUMBER: 200-1702 Method: SAM01.2-VOA

CLIENT: ARGLAB LAB IDs: 200-1702-1 thru 1702-7

Samples associated with this Log-in were placed into storage on 09/24/10 1705 by:  Sample Custodian Signature

Storage Location: VOAB, Shelf 9 Specify storage location (refrigerator, freezer ID or lab location) for original sample containers

Storage Condition:  Refrigeration  Frozen  Ambient

Sample Type		Lab ID(s)	Transfer Date	Transfer Time <sup>2</sup>	Purpose of Transfer			Relinquished By:	Received By:	Storage Location Prepared Sample <sup>1</sup>
Original	Prepared <sup>1</sup>				Prep	Analysis	Storage			
<input checked="" type="checkbox"/>		1-7	9-25-10	1140	<input checked="" type="checkbox"/>			<u>Thomas Jackson</u>	<u>Thomas Jackson</u>	<u>VOA Prep</u>
<input checked="" type="checkbox"/>		1-7	9-25-10	1215				<u>Thomas Jackson</u>	<u>Thomas Jackson</u>	<u>VOA Fridge</u>
<input checked="" type="checkbox"/>		u u	<u>9/27/10</u>	<u>0800</u>				<u>Michael Keller</u>	<u>Michael Keller</u>	<u>analysis</u>
<input checked="" type="checkbox"/>		u "	<u>9/28/10</u>	<u>1600</u>				<u>Michael Keller</u>	<u>Michael Keller</u>	<u>storage</u>

<sup>1</sup> Extract, digestate, or any other prepared sample that is no longer in original sample container

<sup>2</sup> Military Time

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

Lab Name: TESTAMERICA BURLINGTON

Contract: 8E-00302

Lab Code: STLV Case No.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702

Level: (TRACE or LOW) TRACE

	EPA SAMPLE NO.	VDMC1 (VCL) #	VDMC2 (CLA) #	VDMC3 (DCE) #	VDMC4 (BUT) #	VDMC5 (CLF) #	VDMC6 (DCA) #	VDMC7 (BEN) #
01	VBLKJR	89	94	75	102	97	102	103
02	MRMW6S-W-30016	94	96	76	127	97	95	103
03	MRMW7S-W-30017	89	93	76	143	97	103	102
04	MRMW11S-W-3002 1	95	99	77	155	101	108	116
05	MRQCTB-W-30032	87	90	73	96	96	101	100
06	MRISCH-W-30022	91	97	74	140	96	100	102
07	MRMW11S-W-3002 1DL	89	93	75	140	95	100	100
08	MRMW3S-W-30013 DL	83	89	72	102	96	103	99
09	MRMW3S-W-30013	80	87	71	131	95	100	98
10	VIBLKJZ	84	90	72	103	96	102	100
11	VHBLK01	76	87	73	104	98	107	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.: MORRIL Mod. Ref No.: \_\_\_\_\_

SDG No.: 200-1702

Level: (TRACE or LOW) TRACE

	EPA SAMPLE NO.	VDMC8 (DPA) #	VDMC9 (TOL) #	VDMC10 (TDP) #	VDMC11 (HEX) #	VDMC12 (TCA) #	VDMC13 (DCZ) #	OTHER.	TOT OUT
01	VBLKJR	88	102	101	104	99	103		0
02	MRMW6S-W-30016	89	102	98	135	96	102		0
03	MRMW7S-W-30017	90	102	103	152 *	105	104		1
04	MRMW11S-W-3002 1	100	110	113	167 *	110	118		1
05	MRQCTB-W-30032	87	101	99	104	102	103		0
06	MRISCH-W-30022	86	100	102	146 *	104	102		1
07	MRMW11S-W-3002 1DL	85	100	99	146 *	98	103		1
08	MRMW3S-W-30013 DL	86	99	98	106	103	103		0
09	MRMW3S-W-30013	86	97	99	129	97	101		0
10	VIBLKJZ	86	99	97	107	103	102		0
11	VHBLK01	88	101	104	109	104	107		0

VDMC8 (DPA) = 1,2-Dichloropropane-d6  
VDMC9 (TOL) = Toluene-d8  
VDMC10 (TDP) = trans-1,3-Dichloropropene-d4  
VDMC11 (HEX) = 2-Hexanone-d5  
VDMC12 (TCA) = 1,1,2,2-Tetrachloroethane-d2  
VDMC13 (DCZ) = 1,2-Dichlorobenzene-d4

QC LIMITS  
(79-124)  
(77-121)  
(73-121)  
(28-135)  
(73-125)  
(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.

VBLKJR

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Lab File ID: JBOC05.D Lab Sample ID: MB 200-7244/5  
 Instrument ID: J.i  
 Matrix: (SOIL/SED/WATER) Water Date Analyzed: 09/29/2010  
 Level: (TRACE or LOW/MED) TRACE Time Analyzed: 0941  
 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	MRMW6S-W-300 16	200-1702-2	JBOC06.D	1039
02	MRMW7S-W-300 17	200-1702-3	JBOC07.D	1108
03	MRMW11S-W-30 021	200-1702-4	JBOC08.D	1137
04	MRQCTB-W-300 32	200-1702-5	JBOC10.D	1234
05	MRISCH-W-300 22	200-1702-6	JBOC11.D	1302
06	MRMW11S-W-30 021DL	200-1702-4	JBOC12.D	1331
07	MRMW3S-W-300 13DL	200-1702-1	JBOC13.D	1359
08	MRMW3S-W-300 13	200-1702-1	JBOC14.D	1428
09	VIBLKJZ	VIBLK 200-7244/15	JBOC15.D	1456
10	VHBLK01	200-1702-7	JBOC16.D	1524

COMMENTS: \_\_\_\_\_

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

EPA SAMPLE NO.

BFBJO

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
Lab Code: STLV Case No.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
Lab File Id: JBO01.D BFB Injection Date: 09/27/2010  
Instrument Id: J.i BFB Injection Time: 1523  
GC Column: DB-624 ID: 0.20 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.8
75	30.0 - 80.0% of mass 95	50.8
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.3
173	Less than 2.0% of mass 174	0.5 ( 0.6)1
174	50.0 - 120% of mass 95	88.9
175	5.0 - 9.0% of mass 174	6.6 ( 7.5)1
176	95.0 - 101% of mass 174	86.9 ( 97.8)1
177	5.0 - 9.0% of mass 176	5.6 ( 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	VSTD0.5JO	IC 200-7152/2	JBO02.D	09/27/2010	1544
02	VSTD001JO	IC 200-7152/3	JBO03.D	09/27/2010	1611
03	VSTD005JO	ICIS 200-7152/4	JBO04.D	09/27/2010	1639
04	VSTD010JO	IC 200-7152/5	JBO05.D	09/27/2010	1708
05	VSTD020JO	IC 200-7152/6	JBO06.D	09/27/2010	1736

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

EPA SAMPLE NO.

BFBJR

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Lab File Id: JBOC01.D BFB Injection Date: 09/29/2010  
 Instrument Id: J.i BFB Injection Time: 0755  
 GC Column: DB-624 ID: 0.20 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.8
75	30.0 - 80.0% of mass 95	52.6
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0.4 ( 0.5)1
174	50.0 - 120% of mass 95	85.0
175	5.0 - 9.0% of mass 174	5.9 ( 6.9)1
176	95.0 - 101% of mass 174	82.1 ( 96.6)1
177	5.0 - 9.0% of mass 176	5.5 ( 6.6)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	VSTD005JR	CCVIS 200-7244/3	JBOC03.D	09/29/2010	0844
02	VBLKJR	MB 200-7244/5	JBOC05.D	09/29/2010	0941
03	MRMW6S-W-3 0016	200-1702-2	JBOC06.D	09/29/2010	1039
04	MRMW7S-W-3 0017	200-1702-3	JBOC07.D	09/29/2010	1108
05	MRMW11S-W- 30021	200-1702-4	JBOC08.D	09/29/2010	1137
06	MRQCTB-W-3 0032	200-1702-5	JBOC10.D	09/29/2010	1234
07	MRISCH-W-3 0022	200-1702-6	JBOC11.D	09/29/2010	1302
08	MRMW11S-W- 30021DL	200-1702-4	JBOC12.D	09/29/2010	1331
09	MRMW3S-W-3 0013DL	200-1702-1	JBOC13.D	09/29/2010	1359
10	MRMW3S-W-3 0013	200-1702-1	JBOC14.D	09/29/2010	1428
11	VIBLKJZ	VIBLK 200-7244/15	JBOC15.D	09/29/2010	1456
12	VHBLK01	200-1702-7	JBOC16.D	09/29/2010	1524
13	VSTD005RJ	CCVC 200-7244/17	JBOC17.D	09/29/2010	1553

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

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 GC Column: DB-624 ID: 0.20 (mm) Init. Calib. Date(s): 09/27/2010 09/27/2010  
 EPA Sample No. (VSTD#####): VSTD005JR Date Analyzed: 09/29/2010  
 Lab File ID (Standard): JBOC03.D Time Analyzed: 0844  
 Instrument ID: J.i Heated Purge: (Y/N) N

	IS1 (CBZ)		IS2 (DFB)		IS3 (DCB)	
	AREA	#	AREA	#	AREA	#
12 HOUR STD	611361	8.97	784037	5.60	272715	11.81
UPPER LIMIT	855905	9.30	1097652	5.93	381801	12.14
LOWER LIMIT	366817	8.64	470422	5.27	163629	11.48
EPA SAMPLE NO.						
01 VBLKJR	575081	8.97	754925	5.60	245400	11.81
02 MRMW6S-W-30016	559051	8.97	747915	5.59	240738	11.80
03 MRMW7S-W-30017	610199	8.97	798281	5.60	261873	11.81
04 MRMW11S-W-3002 1	514516	8.97	742048	5.60	159317*	11.81
05 MRQCTB-W-30032	600696	8.97	783365	5.60	256231	11.81
06 MRISCH-W-30022	568710	8.97	737032	5.60	242533	11.81
07 MRMW11S-W-3002 1DL	584704	8.97	758507	5.60	247601	11.81
08 MRMW3S-W-30013 DL	586537	8.97	759702	5.60	251128	11.81
09 MRMW3S-W-30013	588350	8.97	750437	5.60	248421	11.81
10 VIBLKJZ	572217	8.97	733681	5.60	245223	11.81
11 VHBLK01	565873	8.97	726898	5.60	242156	11.81

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.



1A - FORM I VOA-1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MRISCH-W-30022

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-1702-6  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: JBOC11.D  
 Level: (TRACE/LOW/MED) TRACE Date Received: 09/24/2010  
 % Moisture: not dec. Date Analyzed: 09/29/2010  
 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	2.9	J B
75-15-0	Carbon disulfide	0.13	J B
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

SOM01.2 (4/2007)

1B - FORM I VOA-2  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MRISCH-W-30022

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-1702-6  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: JBOC11.D  
 Level: (TRACE/LOW/MED) TRACE Date Received: 09/24/2010  
 % Moisture: not dec. Date Analyzed: 09/29/2010  
 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.

MRISCH-W-30022

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-1702-6  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: JBOC11.D  
 Level: (TRACE or LOW/MED) TRACE Date Received: 09/24/2010  
 % Moisture: not dec. \_\_\_\_\_ Date Analyzed: 09/29/2010  
 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	7446-09-5	Sulfur dioxide	1.43	1.2	J N
02		Unknown	6.93	2.6	B X J
03	E9667961	Total Alkanes	N/A		

<sup>1</sup>EPA-designated Registry Number.

1A - FORM I VOA-1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MRMW11S-W-30021

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-1702-4  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: JBOC08.D  
 Level: (TRACE/LOW/MED) TRACE Date Received: 09/24/2010  
 % Moisture: not dec. \_\_\_\_\_ Date Analyzed: 09/29/2010  
 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	2.3	J B
75-15-0	Carbon disulfide	0.24	J B
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	0.85	
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	25	E
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

SOM01.2 (4/2007)

1B - FORM I VOA-2  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MRMW11S-W-30021

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-1702-4  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: JBOC08.D  
 Level: (TRACE/LOW/MED) TRACE Date Received: 09/24/2010  
 % Moisture: not dec. \_\_\_\_\_ Date Analyzed: 09/29/2010  
 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.

MRMW11S-W-30021

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-1702-4  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: JBOC08.D  
 Level: (TRACE or LOW/MED) TRACE Date Received: 09/24/2010  
 % Moisture: not dec. \_\_\_\_\_ Date Analyzed: 09/29/2010  
 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	7446-09-5	Sulfur dioxide	1.43	0.72	J N
02		Unknown	6.93	2.7	B X J
03	E9667961	Total Alkanes	N/A		

<sup>1</sup>EPA-designated Registry Number.

1A - FORM I VOA-1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MRMW11S-W-30021DL

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-1702-4  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: JBOC12.D  
 Level: (TRACE/LOW/MED) TRACE Date Received: 09/24/2010  
 % Moisture: not dec. Date Analyzed: 09/29/2010  
 GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.9  
 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	0.95	U
74-87-3	Chloromethane	0.95	U
75-01-4	Vinyl chloride	0.95	U
74-83-9	Bromomethane	0.95	U
75-00-3	Chloroethane	0.95	U
75-69-4	Trichlorofluoromethane	0.95	U
75-35-4	1,1-Dichloroethene	0.95	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.95	U
67-64-1	Acetone	4.1	J B D
75-15-0	Carbon disulfide	0.35	J B D
79-20-9	Methyl acetate	0.95	U
75-09-2	Methylene Chloride	0.95	U
156-60-5	trans-1,2-Dichloroethene	0.95	U
1634-04-4	Methyl tert-butyl ether	0.95	U
75-34-3	1,1-Dichloroethane	0.95	U
156-59-2	cis-1,2-Dichloroethene	0.95	U
78-93-3	2-Butanone	9.5	U
74-97-5	Bromochloromethane	0.95	U
67-66-3	Chloroform	0.77	J D
71-55-6	1,1,1-Trichloroethane	0.95	U
110-82-7	Cyclohexane	0.95	U
56-23-5	Carbon tetrachloride	19	D
71-43-2	Benzene	0.95	U
107-06-2	1,2-Dichloroethane	0.95	U

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

SOM01.2 (4/2007)

1B - FORM I VOA-2  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MRMW11S-W-30021DL

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-1702-4  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: JBOC12.D  
 Level: (TRACE/LOW/MED) TRACE Date Received: 09/24/2010  
 % Moisture: not dec. Date Analyzed: 09/29/2010  
 GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.9  
 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	0.95	U
108-87-2	Methylcyclohexane	0.95	U
78-87-5	1,2-Dichloropropane	0.95	U
75-27-4	Bromodichloromethane	0.95	U
10061-01-5	cis-1,3-Dichloropropene	0.95	U
108-10-1	4-Methyl-2-pentanone	9.5	U
108-88-3	Toluene	0.95	U
10061-02-6	trans-1,3-Dichloropropene	0.95	U
79-00-5	1,1,2-Trichloroethane	0.95	U
127-18-4	Tetrachloroethene	0.95	U
591-78-6	2-Hexanone	9.5	U
124-48-1	Dibromochloromethane	0.95	U
106-93-4	1,2-Dibromoethane	0.95	U
108-90-7	Chlorobenzene	0.95	U
100-41-4	Ethylbenzene	0.95	U
95-47-6	o-Xylene	0.95	U
179601-23-1	m,p-Xylene	0.95	U
100-42-5	Styrene	0.95	U
75-25-2	Bromoform	0.95	U
98-82-8	Isopropylbenzene	0.95	U
79-34-5	1,1,2,2-Tetrachloroethane	0.95	U
541-73-1	1,3-Dichlorobenzene	0.95	U
106-46-7	1,4-Dichlorobenzene	0.95	U
95-50-1	1,2-Dichlorobenzene	0.95	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.95	U
120-82-1	1,2,4-Trichlorobenzene	0.95	U
87-61-6	1,2,3-Trichlorobenzene	0.95	U



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

EPA SAMPLE NO.

MRMW11S-W-30021DL

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-1702-4  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: JBOC12.D  
 Level: (TRACE or LOW/MED) TRACE Date Received: 09/24/2010  
 % Moisture: not dec. \_\_\_\_\_ Date Analyzed: 09/29/2010  
 GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.9  
 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	7446-09-5	Sulfur dioxide	1.43	1.0	D J N
02		Unknown	6.93	5.0	B X D J
03	E9667961	Total Alkanes	N/A		

<sup>1</sup>EPA-designated Registry Number.

1A - FORM I VOA-1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MRMW3S-W-30013

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-1702-1  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: JBOC14.D  
 Level: (TRACE/LOW/MED) TRACE Date Received: 09/24/2010  
 % Moisture: not dec. Date Analyzed: 09/29/2010  
 GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.1  
 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	0.55	U
74-87-3	Chloromethane	0.55	U
75-01-4	Vinyl chloride	0.55	U
74-83-9	Bromomethane	0.55	U
75-00-3	Chloroethane	0.55	U
75-69-4	Trichlorofluoromethane	0.55	U
75-35-4	1,1-Dichloroethene	0.55	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.55	U
67-64-1	Acetone	2.1	J B
75-15-0	Carbon disulfide	0.18	J B
79-20-9	Methyl acetate	0.55	U
75-09-2	Methylene Chloride	0.55	U
156-60-5	trans-1,2-Dichloroethene	0.55	U
1634-04-4	Methyl tert-butyl ether	0.55	U
75-34-3	1,1-Dichloroethane	0.55	U
156-59-2	cis-1,2-Dichloroethene	0.55	U
78-93-3	2-Butanone	5.5	U
74-97-5	Bromochloromethane	0.55	U
67-66-3	Chloroform	1.2	
71-55-6	1,1,1-Trichloroethane	0.55	U
110-82-7	Cyclohexane	0.55	U
56-23-5	Carbon tetrachloride	32	E
71-43-2	Benzene	0.55	U
107-06-2	1,2-Dichloroethane	0.55	U

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

1B - FORM I VOA-2  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MRMW3S-W-30013

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-1702-1  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: JBOC14.D  
 Level: (TRACE/LOW/MED) TRACE Date Received: 09/24/2010  
 % Moisture: not dec. Date Analyzed: 09/29/2010  
 GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.1  
 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	0.55	U
108-87-2	Methylcyclohexane	0.55	U
78-87-5	1,2-Dichloropropane	0.55	U
75-27-4	Bromodichloromethane	0.55	U
10061-01-5	cis-1,3-Dichloropropene	0.55	U
108-10-1	4-Methyl-2-pentanone	5.5	U
108-88-3	Toluene	0.55	U
10061-02-6	trans-1,3-Dichloropropene	0.55	U
79-00-5	1,1,2-Trichloroethane	0.55	U
127-18-4	Tetrachloroethene	0.55	U
591-78-6	2-Hexanone	5.5	U
124-48-1	Dibromochloromethane	0.55	U
106-93-4	1,2-Dibromoethane	0.55	U
108-90-7	Chlorobenzene	0.55	U
100-41-4	Ethylbenzene	0.55	U
95-47-6	o-Xylene	0.55	U
179601-23-1	m,p-Xylene	0.55	U
100-42-5	Styrene	0.55	U
75-25-2	Bromoform	0.55	U
98-82-8	Isopropylbenzene	0.55	U
79-34-5	1,1,2,2-Tetrachloroethane	0.55	U
541-73-1	1,3-Dichlorobenzene	0.55	U
106-46-7	1,4-Dichlorobenzene	0.55	U
95-50-1	1,2-Dichlorobenzene	0.55	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.55	U
120-82-1	1,2,4-Trichlorobenzene	0.55	U
87-61-6	1,2,3-Trichlorobenzene	0.55	U

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

EPA SAMPLE NO.

MRMW3S-W-30013

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-1702-1  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: JBOC14.D  
 Level: (TRACE or LOW/MED) TRACE Date Received: 09/24/2010  
 % Moisture: not dec. Date Analyzed: 09/29/2010  
 GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.1  
 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	7446-09-5	Sulfur dioxide	1.43	0.71	J N
02		Unknown	6.93	2.9	B X J
03	E966796 <sup>1</sup>	Total Alkanes	N/A		

<sup>1</sup>EPA-designated Registry Number.

1A - FORM I VOA-1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.  
MRMW3S-W-30013DL

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-1702-1  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: JBOC13.D  
 Level: (TRACE/LOW/MED) TRACE Date Received: 09/24/2010  
 % Moisture: not dec. Date Analyzed: 09/29/2010  
 GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 3.0  
 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	1.5	U
74-87-3	Chloromethane	1.5	U
75-01-4	Vinyl chloride	1.5	U
74-83-9	Bromomethane	1.5	U
75-00-3	Chloroethane	1.5	U
75-69-4	Trichlorofluoromethane	1.5	U
75-35-4	1,1-Dichloroethene	1.5	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.5	U
67-64-1	Acetone	6.9	J B D
75-15-0	Carbon disulfide	0.37	J B D
79-20-9	Methyl acetate	1.5	U
75-09-2	Methylene Chloride	1.5	U
156-60-5	trans-1,2-Dichloroethene	1.5	U
1634-04-4	Methyl tert-butyl ether	1.5	U
75-34-3	1,1-Dichloroethane	1.5	U
156-59-2	cis-1,2-Dichloroethene	1.5	U
78-93-3	2-Butanone	15	U
74-97-5	Bromochloromethane	1.5	U
67-66-3	Chloroform	1.2	J D
71-55-6	1,1,1-Trichloroethane	1.5	U
110-82-7	Cyclohexane	1.5	U
56-23-5	Carbon tetrachloride	30	D
71-43-2	Benzene	1.5	U
107-06-2	1,2-Dichloroethane	1.5	U

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

1B - FORM I VOA-2  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MRMW3S-W-30013DL

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-1702-1  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: JBOC13.D  
 Level: (TRACE/LOW/MED) TRACE Date Received: 09/24/2010  
 % Moisture: not dec. \_\_\_\_\_ Date Analyzed: 09/29/2010  
 GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 3.0  
 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	1.5	U
108-87-2	Methylcyclohexane	1.5	U
78-87-5	1,2-Dichloropropane	1.5	U
75-27-4	Bromodichloromethane	1.5	U
10061-01-5	cis-1,3-Dichloropropene	1.5	U
108-10-1	4-Methyl-2-pentanone	15	U
108-88-3	Toluene	1.5	U
10061-02-6	trans-1,3-Dichloropropene	1.5	U
79-00-5	1,1,2-Trichloroethane	1.5	U
127-18-4	Tetrachloroethene	1.5	U
591-78-6	2-Hexanone	15	U
124-48-1	Dibromochloromethane	1.5	U
106-93-4	1,2-Dibromoethane	1.5	U
108-90-7	Chlorobenzene	1.5	U
100-41-4	Ethylbenzene	1.5	U
95-47-6	o-Xylene	1.5	U
179601-23-1	m,p-Xylene	1.5	U
100-42-5	Styrene	1.5	U
75-25-2	Bromoform	1.5	U
98-82-8	Isopropylbenzene	1.5	U
79-34-5	1,1,2,2-Tetrachloroethane	1.5	U
541-73-1	1,3-Dichlorobenzene	1.5	U
106-46-7	1,4-Dichlorobenzene	1.5	U
95-50-1	1,2-Dichlorobenzene	1.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	1.5	U
120-82-1	1,2,4-Trichlorobenzene	1.5	U
87-61-6	1,2,3-Trichlorobenzene	1.5	U

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

EPA SAMPLE NO.  
 MRMW3S-W-30013DL

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-1702-1  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: JBOC13.D  
 Level: (TRACE or LOW/MED) TRACE Date Received: 09/24/2010  
 % Moisture: not dec. \_\_\_\_\_ Date Analyzed: 09/29/2010  
 GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 3.0  
 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	1.43	1.6	D J
02		Unknown	6.93	7.8	B X D J
03	E9667961	Total Alkanes	N/A		

<sup>1</sup>EPA-designated Registry Number.

1A - FORM I VOA-1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MRMW6S-W-30016

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-1702-2  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: JBOC06.D  
 Level: (TRACE/LOW/MED) TRACE Date Received: 09/24/2010  
 % Moisture: not dec. Date Analyzed: 09/29/2010  
 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	0.060	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	1.9	J B
75-15-0	Carbon disulfide	0.093	J B
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



1B - FORM I VOA-2  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MRMW6S-W-30016

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-1702-2  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: JBOC06.D  
 Level: (TRACE/LOW/MED) TRACE Date Received: 09/24/2010  
 % Moisture: not dec. Date Analyzed: 09/29/2010  
 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	0.039	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.

MRMW6S-W-30016

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-1702-2  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: JBOC06.D  
 Level: (TRACE or LOW/MED) TRACE Date Received: 09/24/2010  
 % Moisture: not dec. Date Analyzed: 09/29/2010  
 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	7446-09-5	Sulfur dioxide	1.43	0.78	J N
02	420-56-4	Trimethylsilyl fluoride	1.68	0.52	J N
03		Unknown	6.93	2.6	B X J
04	541-05-9	Cyclotrisiloxane, hexamethyl-	7.88	1.1	B J N
05		Unknown siloxane derivative	10.72	1.5	B J
06	E9667961	Total Alkanes	N/A		

<sup>1</sup>EPA-designated Registry Number.

1A - FORM I VOA-1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MRMW7S-W-30017

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-1702-3  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: JBOC07.D  
 Level: (TRACE/LOW/MED) TRACE Date Received: 09/24/2010  
 % Moisture: not dec. Date Analyzed: 09/29/2010  
 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	2.2	J B
75-15-0	Carbon disulfide	0.11	J B
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	4.7	
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

SOM01.2 (4/2007)

1B - FORM I VOA-2  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MRMW7S-W-30017

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-1702-3  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: JBOC07.D  
 Level: (TRACE/LOW/MED) TRACE Date Received: 09/24/2010  
 % Moisture: not dec. Date Analyzed: 09/29/2010  
 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	0.062	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.

MRMW7S-W-30017

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-1702-3  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: JBOC07.D  
 Level: (TRACE or LOW/MED) TRACE Date Received: 09/24/2010  
 % Moisture: not dec. Date Analyzed: 09/29/2010  
 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	7446-09-5	Sulfur dioxide	1.43	0.51	J N
02		Unknown	6.93	2.7	B X J
03	E966796 <sup>1</sup>	Total Alkanes	N/A		

<sup>1</sup>EPA-designated Registry Number.

1A - FORM I VOA-1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MRQCTB-W-30032

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-1702-5  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: JBOC10.D  
 Level: (TRACE/LOW/MED) TRACE Date Received: 09/24/2010  
 % Moisture: not dec. Date Analyzed: 09/29/2010  
 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	6.8	B
75-15-0	Carbon disulfide	0.17	J B
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	0.16	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	0.035	J
107-06-2	1,2-Dichloroethane	0.50	U

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

1B - FORM I VOA-2  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MRQCTB-W-30032

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-1702-5  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: JBOC10.D  
 Level: (TRACE/LOW/MED) TRACE Date Received: 09/24/2010  
 % Moisture: not dec. Date Analyzed: 09/29/2010  
 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	0.15	J
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.17	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	0.078	J
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	0.055	J
179601-23-1	m,p-Xylene	0.088	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.

MRQCTB-W-30032

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-1702-5  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: JBOC10.D  
 Level: (TRACE or LOW/MED) TRACE Date Received: 09/24/2010  
 % Moisture: not dec. Date Analyzed: 09/29/2010  
 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	6.93	2.6	B X J
02	541-05-9	Cyclotrisiloxane, hexamethyl-	7.88	0.59	B J N
03	E9667961	Total Alkanes	N/A		

<sup>1</sup>EPA-designated Registry Number.



1A - FORM I VOA-1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VHBLK01

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-1702-7  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: JBOC16.D  
 Level: (TRACE/LOW/MED) TRACE Date Received: 09/24/2010  
 % Moisture: not dec. Date Analyzed: 09/29/2010  
 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	2.5	J B
75-15-0	Carbon disulfide	0.089	J B
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

SOM01.2 (4/2007)

1B - FORM I VOA-2  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VHBLK01

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-1702-7  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: JBOC16.D  
 Level: (TRACE/LOW/MED) TRACE Date Received: 09/24/2010  
 % Moisture: not dec. Date Analyzed: 09/29/2010  
 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.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 200-1702-7  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: JBOC16.D  
 Level: (TRACE or LOW/MED) TRACE Date Received: 09/24/2010  
 % Moisture: not dec. Date Analyzed: 09/29/2010  
 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	6.93	2.7	B X J
02	541-05-9	Cyclotrisiloxane, hexamethyl-	7.89	0.64	B J N
03		Unknown siloxane derivative	10.73	0.63	B J
04	E9667961	Total Alkanes	N/A		

<sup>1</sup>EPA-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.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Instrument ID: J.i Calibration Date(s): 09/27/2010 09/27/2010  
 Heated Purge: (Y/N) N Calibration Time(s): 1544 1736  
 Purge Volume: 25.0 (mL)  
 GC Column: DB-624 ID: 0.20 (mm) Length: 25 (m)

COMPOUND	RRF0.5	RRF1.0	RRF5.0	RRF10	RRF20	RRF	%RSD
Dichlorodifluoromethane	0.457	0.441	0.445	0.453	0.436	0.446	1.9
Chloromethane	0.371	0.315	0.323	0.333	0.315	0.331	7.1
Vinyl chloride	0.420	0.379	0.360	0.361	0.349	0.374	7.4
Bromomethane	0.180	0.109	0.119	0.139	0.154	0.140	20.2
Chloroethane	0.242	0.183	0.225	0.235	0.229	0.223	10.4
Trichlorofluoromethane	0.587	0.587	0.574	0.575	0.550	0.574	2.7
1,1-Dichloroethene	0.298	0.284	0.274	0.278	0.272	0.281	3.7
1,1,2-Trichloro- 1,2,2-trifluoroethane	0.329	0.324	0.315	0.319	0.311	0.319	2.2
Acetone	0.017	0.014	0.012	0.011	0.011	0.013	19.6
Carbon disulfide	0.985	0.779	0.755	0.777	0.748	0.809	12.3
Methyl acetate	0.039	0.043	0.036	0.034	0.033	0.037	10.4
Methylene Chloride	0.240	0.208	0.210	0.211	0.207	0.215	6.5
trans-1,2-Dichloroethene	0.313	0.299	0.297	0.305	0.295	0.302	2.4
Methyl tert-butyl ether	0.297	0.310	0.320	0.324	0.325	0.315	3.7
1,1-Dichloroethane	0.516	0.496	0.498	0.499	0.480	0.498	2.5
cis-1,2-Dichloroethene	0.295	0.279	0.291	0.290	0.286	0.288	2.1
2-Butanone	0.019	0.019	0.020	0.020	0.020	0.020	3.1
Bromochloromethane	0.091	0.083	0.086	0.085	0.084	0.086	3.9
Chloroform	0.493	0.472	0.478	0.480	0.470	0.479	1.9
1,1,1-Trichloroethane	0.695	0.649	0.635	0.650	0.630	0.652	3.9
Cyclohexane	0.677	0.628	0.628	0.645	0.621	0.640	3.6
Carbon tetrachloride	0.614	0.571	0.592	0.602	0.590	0.594	2.7
Benzene	1.624	1.539	1.495	1.516	1.505	1.536	3.4
1,2-Dichloroethane	0.210	0.204	0.196	0.194	0.190	0.199	4.0
Trichloroethene	0.435	0.400	0.397	0.400	0.393	0.405	4.2
Methylcyclohexane	0.517	0.515	0.506	0.519	0.500	0.511	1.6

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.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Instrument ID: J.i Calibration Date(s): 09/27/2010 09/27/2010  
 Heated Purge: (Y/N) N Calibration Time(s): 1544 1736  
 Purge Volume: 25.0 (mL)  
 GC Column: DB-624 ID: 0.20 (mm) Length: 25 (m)

COMPOUND	RRF0.5	RRF1.0	RRF5.0	RRF10	RRF20	RRF	%RSD
LAB FILE ID: _____	RRF0.5 = JBO02.D	RRF1.0 = JBO03.D					
RRF5.0 = JBO04.D	RRF10 = JBO05.D	RRF20 = JBO06.D					
1,2-Dichloropropane	0.302	0.279	0.281	0.293	0.277	0.287	3.7
Bromodichloromethane	0.348	0.350	0.348	0.341	0.342	0.346	1.2
cis-1,3-Dichloropropene	0.419	0.406	0.413	0.414	0.416	0.414	1.2
4-Methyl-2-pentanone	0.056	0.061	0.062	0.062	0.062	0.061	4.2
Toluene	1.688	1.564	1.601	1.637	1.614	1.621	2.8
trans-1,3-Dichloropropene	0.268	0.281	0.287	0.296	0.302	0.287	4.6
1,1,2-Trichloroethane	0.133	0.137	0.135	0.136	0.135	0.135	1.0
Tetrachloroethene	0.393	0.364	0.347	0.364	0.356	0.365	4.8
2-Hexanone	0.038	0.038	0.042	0.040	0.041	0.040	4.7
Dibromochloromethane	0.187	0.176	0.182	0.186	0.187	0.184	2.4
1,2-Dibromoethane	0.126	0.124	0.128	0.127	0.127	0.126	1.1
Chlorobenzene	1.007	0.940	0.949	0.956	0.959	0.962	2.7
Ethylbenzene	1.882	1.824	1.869	1.926	1.934	1.887	2.4
o-Xylene	0.647	0.640	0.650	0.667	0.653	0.651	1.5
m,p-Xylene	0.738	0.713	0.713	0.742	0.740	0.729	2.0
Styrene	0.853	0.862	0.934	0.964	0.983	0.919	6.4
Bromoform	0.172	0.162	0.176	0.184	0.185	0.176	5.3
Isopropylbenzene	1.815	1.771	1.893	1.953	1.965	1.879	4.5
1,1,2,2-Tetrachloroethane	0.115	0.109	0.122	0.121	0.123	0.118	4.8
1,3-Dichlorobenzene	1.567	1.480	1.462	1.499	1.433	1.488	3.4
1,4-Dichlorobenzene	1.544	1.481	1.445	1.434	1.378	1.456	4.2
1,2-Dichlorobenzene	1.115	1.141	1.116	1.105	1.059	1.107	2.7
1,2-Dibromo-3-Chloropropane	0.027	0.031	0.035	0.037	0.034	0.033	12.1
1,2,4-Trichlorobenzene	0.678	0.678	0.679	0.704	0.688	0.686	1.7
1,2,3-Trichlorobenzene	0.455	0.443	0.449	0.466	0.455	0.454	1.9

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

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Instrument ID: J.i Calibration Date(s): 09/27/2010 09/27/2010  
 Heated Purge: (Y/N) N Calibration Time(s): 1544 1736  
 Purge Volume: 25.0 (mL)  
 GC Column: DB-624 ID: 0.20 (mm) Length: 25 (m)

COMPOUND	RRF0.5	RRF1.0	RRF5.0	RRF10	RRF20	RRF	%RSD
Vinyl Chloride-d3	0.358	0.336	0.320	0.324	0.313	0.330	5.3
Chloroethane-d5	0.288	0.272	0.267	0.261	0.257	0.269	4.5
1,1-Dichloroethene-d2	0.537	0.502	0.505	0.512	0.495	0.510	3.2
2-Butanone-d5	0.021	0.020	0.021	0.021	0.020	0.021	1.4
Chloroform-d	0.495	0.490	0.483	0.488	0.476	0.486	1.5
1,2-Dichloroethane-d4	0.162	0.152	0.155	0.154	0.150	0.155	3.0
Benzene-d6	1.436	1.359	1.370	1.386	1.371	1.384	2.2
1,2-Dichloropropane-d6	0.423	0.391	0.373	0.331	0.366	0.377	9.0
Toluene-d8	1.354	1.300	1.325	1.353	1.339	1.334	1.7
trans-1,3-Dichloropropene-d4	0.244	0.248	0.258	0.262	0.262	0.255	3.2
2-Hexanone-d5	0.020	0.023	0.024	0.025	0.025	0.023	9.6
1,1,2,2-Tetrachloroethane-d2	0.111	0.121	0.122	0.120	0.118	0.118	3.7
1,2-Dichlorobenzene-d4	0.721	0.687	0.696	0.682	0.663	0.690	3.1

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.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Instrument ID: J.i Calibration Date: 09/29/2010 Time: 0844  
 Lab File Id: JBOC03.D Init. Calib. Date(s): 09/27/2010 09/27/2010  
 EPA Sample No. (VSTD####): VSTD005JR Init. Calib. Time(s): 1544 1736  
 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	0.446	0.456	0.010	2.3	40.0
Chloromethane	0.331	0.315	0.010	-5.1	40.0
Vinyl chloride	0.374	0.353	0.010	-5.6	30.0
Bromomethane	0.140	0.113	0.100	-19.6	30.0
Chloroethane	0.223	0.207	0.010	-7.0	40.0
Trichlorofluoromethane	0.574	0.576	0.010	0.3	40.0
1,1-Dichloroethene	0.281	0.276	0.100	-1.7	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	0.319	0.320	0.010	0.1	40.0
Acetone	0.013	0.012	0.010	-9.0	40.0
Carbon disulfide	0.809	0.773	0.010	-4.5	40.0
Methyl acetate	0.037	0.036	0.010	-2.3	40.0
Methylene Chloride	0.215	0.216	0.010	0.4	40.0
trans-1,2-Dichloroethene	0.302	0.301	0.010	-0.1	40.0
Methyl tert-butyl ether	0.315	0.328	0.010	3.9	40.0
1,1-Dichloroethane	0.498	0.501	0.200	0.6	30.0
cis-1,2-Dichloroethene	0.288	0.299	0.010	3.9	40.0
2-Butanone	0.020	0.020	0.010	3.2	40.0
Bromochloromethane	0.086	0.087	0.050	1.5	30.0
Chloroform	0.479	0.484	0.200	1.1	30.0
1,1,1-Trichloroethane	0.652	0.659	0.100	1.1	30.0
Cyclohexane	0.640	0.649	0.010	1.4	40.0
Carbon tetrachloride	0.594	0.596	0.100	0.5	30.0
Benzene	1.536	1.530	0.400	-0.4	30.0
1,2-Dichloroethane	0.199	0.198	0.100	-0.5	30.0
Trichloroethene	0.405	0.405	0.300	-0.1	30.0
Methylcyclohexane	0.511	0.522	0.010	2.1	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.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Instrument ID: J.i Calibration Date: 09/29/2010 Time: 0844  
 Lab File Id: JBOC03.D Init. Calib. Date(s): 09/27/2010 09/27/2010  
 EPA Sample No. (VSTD####): VSTD005JR Init. Calib. Time(s): 1544 1736  
 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	0.287	0.294	0.010	2.5	40.0
Bromodichloromethane	0.346	0.351	0.200	1.7	30.0
cis-1,3-Dichloropropene	0.414	0.411	0.200	-0.7	30.0
4-Methyl-2-pentanone	0.061	0.062	0.010	2.6	40.0
Toluene	1.621	1.625	0.400	0.3	30.0
trans-1,3-Dichloropropene	0.287	0.294	0.100	2.4	30.0
1,1,2-Trichloroethane	0.135	0.141	0.100	4.1	30.0
Tetrachloroethene	0.365	0.361	0.100	-1.1	30.0
2-Hexanone	0.040	0.041	0.010	2.1	40.0
Dibromochloromethane	0.184	0.181	0.100	-1.5	30.0
1,2-Dibromoethane	0.126	0.125	0.010	-0.9	40.0
Chlorobenzene	0.962	0.968	0.500	0.6	30.0
Ethylbenzene	1.887	1.903	0.100	0.8	30.0
o-Xylene	0.651	0.643	0.300	-1.3	30.0
m,p-Xylene	0.729	0.741	0.300	1.6	30.0
Styrene	0.919	0.934	0.300	1.6	30.0
Bromoform	0.176	0.178	0.050	1.2	30.0
Isopropylbenzene	1.879	1.904	0.010	1.3	40.0
1,1,2,2-Tetrachloroethane	0.118	0.123	0.100	3.9	30.0
1,3-Dichlorobenzene	1.488	1.495	0.400	0.5	30.0
1,4-Dichlorobenzene	1.456	1.456	0.400	-0.1	30.0
1,2-Dichlorobenzene	1.107	1.133	0.400	2.3	30.0
1,2-Dibromo-3-Chloropropane	0.033	0.035	0.010	8.3	40.0
1,2,4-Trichlorobenzene	0.686	0.694	0.200	1.3	30.0
1,2,3-Trichlorobenzene	0.454	0.459	0.200	1.2	30.0



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

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Instrument ID: J.i Calibration Date: 09/29/2010 Time: 0844  
 Lab File Id: JBOC03.D Init. Calib. Date(s): 09/27/2010 09/27/2010  
 EPA Sample No. (VSTD####): VSTD005JR Init. Calib. Time(s): 1544 1736  
 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	0.330	0.328	0.010	-0.8	30.0
Chloroethane-d5	0.269	0.267	0.010	-0.7	40.0
1,1-Dichloroethene-d2	0.510	0.513	0.010	0.5	30.0
2-Butanone-d5	0.021	0.021	0.010	0.8	40.0
Chloroform-d	0.486	0.488	0.010	0.3	30.0
1,2-Dichloroethane-d4	0.155	0.153	0.010	-1.0	30.0
Benzene-d6	1.384	1.387	0.010	0.2	30.0
1,2-Dichloropropane-d6	0.377	0.335	0.010	-11.2	40.0
Toluene-d8	1.334	1.352	0.010	1.3	30.0
trans-1,3-Dichloropropene-d4	0.255	0.258	0.010	1.3	30.0
2-Hexanone-d5	0.023	0.024	0.010	3.3	40.0
1,1,2,2-Tetrachloroethane-d2	0.118	0.122	0.010	3.1	30.0
1,2-Dichlorobenzene-d4	0.690	0.694	0.010	0.6	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.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Instrument ID: J.i Calibration Date: 09/29/2010 Time: 1553  
 Lab File Id: JBOC17.D Init. Calib. Date(s): 09/27/2010 09/27/2010  
 EPA Sample No. (VSTD####): VSTD005RJ Init. Calib. Time(s): 1544 1736  
 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	0.446	0.445	0.010	-0.4	50.0
Chloromethane	0.331	0.325	0.010	-1.8	50.0
Vinyl chloride	0.374	0.358	0.010	-4.1	50.0
Bromomethane	0.140	0.105	0.010	-24.8	50.0
Chloroethane	0.223	0.205	0.010	-8.0	50.0
Trichlorofluoromethane	0.574	0.573	0.010	-0.3	50.0
1,1-Dichloroethene	0.281	0.276	0.010	-1.9	50.0
1,1,2-Trichloro-1,2,2-trifluoroethane	0.319	0.311	0.010	-2.6	50.0
Acetone	0.013	0.012	0.010	-10.0	50.0
Carbon disulfide	0.809	0.754	0.010	-6.8	50.0
Methyl acetate	0.037	0.036	0.010	-2.2	50.0
Methylene Chloride	0.215	0.214	0.010	-0.7	50.0
trans-1,2-Dichloroethene	0.302	0.297	0.010	-1.5	50.0
Methyl tert-butyl ether	0.315	0.338	0.010	7.1	50.0
1,1-Dichloroethane	0.498	0.498	0.010	0.0	50.0
cis-1,2-Dichloroethene	0.288	0.287	0.010	-0.4	50.0
2-Butanone	0.020	0.019	0.010	-2.0	50.0
Bromochloromethane	0.086	0.087	0.010	1.4	50.0
Chloroform	0.479	0.483	0.010	0.8	50.0
1,1,1-Trichloroethane	0.652	0.628	0.010	-3.6	50.0
Cyclohexane	0.640	0.621	0.010	-3.0	50.0
Carbon tetrachloride	0.594	0.590	0.010	-0.6	50.0
Benzene	1.536	1.517	0.010	-1.2	50.0
1,2-Dichloroethane	0.199	0.194	0.010	-2.2	50.0
Trichloroethene	0.405	0.398	0.010	-1.9	50.0
Methylcyclohexane	0.511	0.513	0.010	0.4	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.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Instrument ID: J.i Calibration Date: 09/29/2010 Time: 1553  
 Lab File Id: JBOC17.D Init. Calib. Date(s): 09/27/2010 09/27/2010  
 EPA Sample No. (VSTD####): VSTD005RJ Init. Calib. Time(s): 1544 1736  
 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	0.287	0.284	0.010	-1.1	50.0
Bromodichloromethane	0.346	0.347	0.010	0.5	50.0
cis-1,3-Dichloropropene	0.414	0.416	0.010	0.6	50.0
4-Methyl-2-pentanone	0.061	0.063	0.010	4.0	50.0
Toluene	1.621	1.604	0.010	-1.0	50.0
trans-1,3-Dichloropropene	0.287	0.298	0.010	4.0	50.0
1,1,2-Trichloroethane	0.135	0.140	0.010	3.8	50.0
Tetrachloroethene	0.365	0.359	0.010	-1.7	50.0
2-Hexanone	0.040	0.042	0.010	4.7	50.0
Dibromochloromethane	0.184	0.186	0.010	1.2	50.0
1,2-Dibromoethane	0.126	0.130	0.010	2.8	50.0
Chlorobenzene	0.962	0.947	0.010	-1.5	50.0
Ethylbenzene	1.887	1.870	0.010	-0.9	50.0
o-Xylene	0.651	0.659	0.010	1.2	50.0
m,p-Xylene	0.729	0.731	0.010	0.3	50.0
Styrene	0.919	0.955	0.010	3.9	50.0
Bromoform	0.176	0.184	0.010	4.7	50.0
Isopropylbenzene	1.879	1.882	0.010	0.1	50.0
1,1,2,2-Tetrachloroethane	0.118	0.123	0.010	4.3	50.0
1,3-Dichlorobenzene	1.488	1.451	0.010	-2.5	50.0
1,4-Dichlorobenzene	1.456	1.395	0.010	-4.2	50.0
1,2-Dichlorobenzene	1.107	1.104	0.010	-0.3	50.0
1,2-Dibromo-3-Chloropropane	0.033	0.035	0.010	6.6	50.0
1,2,4-Trichlorobenzene	0.686	0.666	0.010	-2.8	50.0
1,2,3-Trichlorobenzene	0.454	0.436	0.010	-3.9	50.0

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

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Instrument ID: J.i Calibration Date: 09/29/2010 Time: 1553  
 Lab File Id: JBOC17.D Init. Calib. Date(s): 09/27/2010 09/27/2010  
 EPA Sample No. (VSTD####): VSTD005RJ Init. Calib. Time(s): 1544 1736  
 Heated Purge: (Y/N) N GC Column: DB-624 ID: 0.20(mm) Length: 25 (m)  
 Purge Volume: 25.0 (mL)

COMPOUND	<u>RRF</u>	<u>RRF5.0</u>	<u>MIN RRF</u>	<u>%D</u>	<u>MAX %D</u>
Vinyl Chloride-d3	0.330	0.322	0.010	-2.6	50.0
Chloroethane-d5	0.269	0.263	0.010	-2.4	50.0
1,1-Dichloroethene-d2	0.510	0.507	0.010	-0.6	50.0
2-Butanone-d5	0.021	0.021	0.010	2.9	50.0
Chloroform-d	0.486	0.488	0.010	0.4	50.0
1,2-Dichloroethane-d4	0.155	0.157	0.010	1.5	50.0
Benzene-d6	1.384	1.390	0.010	0.4	50.0
1,2-Dichloropropane-d6	0.377	0.379	0.010	0.6	50.0
Toluene-d8	1.334	1.337	0.010	0.2	50.0
trans-1,3-Dichloropropene-d4	0.255	0.264	0.010	3.5	50.0
2-Hexanone-d5	0.023	0.026	0.010	9.4	50.0
1,1,2,2-Tetrachloroethane-d2	0.118	0.124	0.010	4.8	50.0
1,2-Dichlorobenzene-d4	0.690	0.698	0.010	1.1	50.0

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

1A - FORM I VOA-1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKJR

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: MB 200-7244/5  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: JBOC05.D  
 Level: (TRACE/LOW/MED) TRACE Date Received: \_\_\_\_\_  
 % Moisture: not dec. Date Analyzed: 09/29/2010  
 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	2.9	J
75-15-0	Carbon disulfide	0.074	J
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

1B - FORM I VOA-2  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKJR

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: MB 200-7244/5  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: JBOC05.D  
 Level: (TRACE/LOW/MED) TRACE Date Received: \_\_\_\_\_  
 % Moisture: not dec. Date Analyzed: 09/29/2010  
 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	0.041	J

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

EPA SAMPLE NO.

VBLKJR

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: MB 200-7244/5  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: JBOC05.D  
 Level: (TRACE or LOW/MED) TRACE Date Received: \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_ Date Analyzed: 09/29/2010  
 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	6.93	2.6	J
02	541-05-9	Cyclotrisiloxane, hexamethyl-	7.89	1.4	J N
03		Unknown siloxane derivative	10.73	1.9	J
04	E9667961	Total Alkanes	N/A		

<sup>1</sup>EPA-designated Registry Number.

1A - FORM I VOA-1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VIBLKJZ

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: VIBLK 200-7244/15  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: JBOC15.D  
 Level: (TRACE/LOW/MED) TRACE Date Received: \_\_\_\_\_  
 % Moisture: not dec. Date Analyzed: 09/29/2010  
 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	1.7	J
75-15-0	Carbon disulfide	0.10	J
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



1B - FORM I VOA-2  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VIBLKJZ

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: VIBLK 200-7244/15  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: JBOC15.D  
 Level: (TRACE/LOW/MED) TRACE Date Received: \_\_\_\_\_  
 % Moisture: not dec. Date Analyzed: 09/29/2010  
 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.

VIBLKJZ

Lab Name: TESTAMERICA BURLINGTON Contract: 8E-00302  
 Lab Code: STLV Case No.: MORRIL Mod. Ref No.: \_\_\_\_\_ SDG No.: 200-1702  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: VIBLK 200-7244/15  
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: JBOC15.D  
 Level: (TRACE or LOW/MED) TRACE Date Received: \_\_\_\_\_  
 % Moisture: not dec. Date Analyzed: 09/29/2010  
 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	6.93	2.6	B X J
02	E9667961	Total Alkanes	N/A		

<sup>1</sup>EPA-designated Registry Number.

**Supplement 4:**

**Sample Documentation from TestAmerica Laboratories, Inc.,  
for Indoor Air Samples Samples**

# Radon Analytical Data

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Send results to: Clyde Dennis

Argonne National Lab  
 9700 S Cass Ave  
 BLDG 203 RM B-110  
 Lemont IL 60439-4803  
 cdennis@anl.gov

MATRIX: Radon Test Kits		ARGONNE NATIONAL LABORATORY										S	
RECEIVING LAB: Air Chek Inc		CHAIN OF CUSTODY RECORD*										S	
PROJECT/SITE: Morrill KS		ANALYSIS										A	
SAMPLER(S) (Signature)		Number of containers	R	T	K								REMARKS
DATE OF COLLECTION	SAMPLE ID NUMBER(S)												
Aug 12-16, 2010	5805159	1	1										203 Roxanna - 1st Floor
Aug 12-16, 2010	5805160	1	1										104 Roxanna - 1st Floor
Aug 11-16, 2010	5805170	1	1										104 Roxanna - Basement
Aug 12-16, 2010	5805162	1	1										105 Roxanna - 1st Floor
Aug 12-16, 2010	5805166	1	1										107 Roxanna - 1st Floor Office
Aug 12-16, 2010	5805165	1	1										107 Roxanna - 1st Floor Back Hallway
Aug 12-16, 2010	5805171	1	1										107 Roxanna - 1st Floor Main Room
Aug 11-16, 2010	5805176	1	1										108 Roxanna - Basement
Aug 12-16, 2010	5805161	1	1										108 Roxanna - 1st Floor
Aug 12-16, 2010	5805175	1	1										202 Roxanna - 1st Floor
Aug 11-16, 2010	5805157	1	1										202 Roxanna - Basement
Aug 12-16, 2010	5805150	1	1										96 Virginia - 1st Floor
Aug 11-16, 2010	5805169	1	1										102 Virginia - Basement
Aug 12-16, 2010	5805164	1	1										102 Virginia - 1st Floor
Aug 12-16, 2010	5805177	1	1										106 Virginia - 1st Floor
Relinquished by (Signature)		Date	Time	Received by (Signature)			Relinquished by (Signature)			Date	Time	Received by (Signature)	
		8/17/10	15:00										
Relinquished by (Signature)		Date	Time	Received for Laboratory by			Date	Time	Remarks				
Y	N	FOR LAB USE ONLY				*A sample is under custody if:							
		Custody seal was intact when shipment received.				1. It is in your possession; or,							
		Sample containers were intact when received.				2. It is in your view, after having been in your possession; or,							
		Shipment was at required temperature when received.				3. It was in your possession and you locked it up; or,							
		Sample labels, Tags and COC agree.				4. It is in a designated secure area.							
Argonne National Laboratory, Applied Geosciences & Environmental Mgt. Group, Environmental Research Division, 9700 S. Cass Avenue, Argonne, IL 60439													

-----Original Message-----

From: Air Chek Inc [mailto:apache@plus.airchek.com] On Behalf Of Air Chek, Inc.

Sent: Wednesday, August 18, 2010 1:11 PM

To: Dennis, Clyde B.

Subject: Radon Test Report #5694017,5694020,5694027,

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08/18/10 ACTIVATED CHARCOAL RADON TEST #5805159

\* Radon Test Result = 1.4 pCi/L

\* Test Started 08/12/10 at 1:00 pm

\* Test Ended 08/16/10 at 2:00 pm

\* Location 1st Floor

203 ROXANNA ST MORRILL KS

\*\* INTERPRETING YOUR TEST RESULT

The USEPA states that there is little short-term risk with test results in this range (0.6 to 1.9 pCi/L). However, because radon levels fluctuate daily as well as seasonally, you may want to retest during another season. Additionally, if you make any structural changes or start to use a lower level of the building more frequently, you should test again.

You may be able to obtain additional information about radon related subjects by calling your state radon officer at .  
Or call the "Radon Fix-It Line" at 800-644-6999 Monday thru Friday between NOON and 8 pm EST

-----Original Message-----

From: Air Chek Inc [mailto:apache@plus.airchek.com] On Behalf Of Air Chek, Inc.

Sent: Wednesday, August 18, 2010 1:11 PM

To: Dennis, Clyde B.

Subject: Radon Test Report #5694017,5694020,5694027,

---

08/18/10 ACTIVATED CHARCOAL RADON TEST #5805160

\* Radon Test Result = 1.9 pCi/L

\* Test Started 08/12/10 at 3:00 pm

\* Test Ended 08/16/10 at 3:00 pm

\* Location 1st Floor

104 ROXANNA ST MORRILL KS

\*\* INTERPRETING YOUR TEST RESULT

The USEPA states that there is little short-term risk with test results in this range (0.6 to 1.9 pCi/L). However, because radon levels fluctuate daily as well as seasonally, you may want to retest during another season. Additionally, if you make any structural changes or start to use a lower level of the building more frequently, you should test again.

You may be able to obtain additional information about radon related subjects by calling your state radon officer at .  
Or call the "Radon Fix-It Line" at 800-644-6999 Monday thru Friday between NOON and 8 pm EST

-----Original Message-----

From: Air Chek Inc [mailto:apache@plus.airchek.com] On Behalf Of Air Chek, Inc.

Sent: Wednesday, August 18, 2010 1:11 PM

To: Dennis, Clyde B.

Subject: Radon Test Report #5694017,5694020,5694027,

---

08/18/10 ACTIVATED CHARCOAL RADON TEST #5805170

\* Radon Test Result = 2.3 pCi/L

\* Test Started 08/11/10 at 3:00 pm

\* Test Ended 08/16/10 at 3:00 pm

\* Location Basement

104 ROXANNA ST MORRILL KS

\*\* INTERPRETING YOUR TEST RESULT

With results in this range (2.0 to 3.9 pCi/L) the USEPA recommends that you conduct further tests to determine the true annual average. If the result remains between 2 and 4 there is little short-term risk, but you should consider fixing your home. Additionally, if you make any structural changes or start to use a lower level of the building more frequently, you should test again.

You may be able to obtain additional information about radon related subjects by calling your state radon officer at . Or call the "Radon Fix-It Line" at 800-644-6999 Monday thru Friday between NOON and 8 pm EST



Online Test Results

Test Number:

Test Number: **5805162** Result: **5.0 pCi/l**

- This test was received for analysis on **08/18/2010**
- The total exposure time was **94 hours**
- Starting on **08/12/2010** at **5:00 pm**
- Ending on **08/16/2010** at **3:00 pm**

---

**EPA Recommendations**

The USEPA states that for test results in this range (4 to 8 pCi/L) you should conduct either a short- or long-term follow-up measurement. If, however, this is a follow-up (confirming) test, it is recommended that you take remedial action to reduce these radon levels.

[Click here for EPA Radon Publications](#)

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**Printed Reports?**

Your formal written report is being mailed to the address entered into our computer when the test kit was first purchased...OR...to the address that may have been printed on the sample packet by the end user.

You may use your Browser's print function to print out this abbreviated report or you have the option of calling or faxing our office to request a faxed copy. Additionally, you may click this link to send your request directly to our server's mail box.

[Click here to contact your state radon office](#)

105 ROXANNA ST. - 1ST FLOOR

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**800-AIR-CHEK** (800-247-2435) · Hours: **8:30-5:30** Eastern Time, Monday - Friday

Copyright © 2009 Air Chek, Inc. All rights reserved.

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-----Original Message-----

From: Air Chek Inc [mailto:apache@plus.airchek.com] On Behalf Of Air Chek, Inc.

Sent: Wednesday, August 18, 2010 1:11 PM

To: Dennis, Clyde B.

Subject: Radon Test Report #5694017,5694020,5694027,

---

08/18/10 ACTIVATED CHARCOAL RADON TEST #5805166

\* Radon Test Result = 3.0 pCi/L

\* Test Started 08/12/10 at 5:00 pm

\* Test Ended 08/16/10 at 2:00 pm

\* Location 1st Floor

107 ROXANNA ST OFFICE MORRILL KS

\*\* INTERPRETING YOUR TEST RESULT

With results in this range (2.0 to 3.9 pCi/L) the USEPA recommends that you conduct further tests to determine the true annual average. If the result remains between 2 and 4 there is little short-term risk, but you should consider fixing your home. Additionally, if you make any structural changes or start to use a lower level of the building more frequently, you should test again.

You may be able to obtain additional information about radon related subjects by calling your state radon officer at . Or call the "Radon Fix-It Line" at 800-644-6999 Monday thru Friday between NOON and 8 pm EST

-----Original Message-----

From: Air Chek Inc [mailto:apache@plus.airchek.com] On Behalf Of Air Chek, Inc.

Sent: Wednesday, August 18, 2010 1:11 PM

To: Dennis, Clyde B.

Subject: Radon Test Report #5694017,5694020,5694027,

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08/18/10 ACTIVATED CHARCOAL RADON TEST #5805165

\* Radon Test Result = 3.0 pCi/L

\* Test Started 08/12/10 at 5:00 pm

\* Test Ended 08/16/10 at 2:00 pm

\* Location 1st Floor

107 ROXANNA ST MORRILL KS

\*\* INTERPRETING YOUR TEST RESULT

With results in this range (2.0 to 3.9 pCi/L) the USEPA recommends that you conduct further tests to determine the true annual average. If the result remains between 2 and 4 there is little short-term risk, but you should consider fixing your home. Additionally, if you make any structural changes or start to use a lower level of the building more frequently, you should test again.

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Or call the "Radon Fix-It Line" at 800-644-6999 Monday thru Friday between NOON and 8 pm EST

-----Original Message-----

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Sent: Wednesday, August 18, 2010 1:11 PM

To: Dennis, Clyde B.

Subject: Radon Test Report #5694017,5694020,5694027,

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08/18/10 ACTIVATED CHARCOAL RADON TEST #5805171

\* Radon Test Result = 3.2 pCi/L

\* Test Started 08/12/10 at 5:00 pm

\* Test Ended 08/16/10 at 2:00 pm

\* Location 1st Floor

107 ROXANNA ST MAIN MORRILL KS

**\*\* INTERPRETING YOUR TEST RESULT**

With results in this range (2.0 to 3.9 pCi/L) the USEPA recommends that you conduct further tests to determine the true annual average. If the result remains between 2 and 4 there is little short-term risk, but you should consider fixing your home. Additionally, if you make any structural changes or start to use a lower level of the building more frequently, you should test again.

You may be able to obtain additional information about radon related subjects by calling your state radon officer at .  
Or call the "Radon Fix-It Line" at 800-644-6999 Monday thru Friday between NOON and 8 pm EST

-----Original Message-----

From: Air Chek Inc [mailto:apache@plus.airchek.com] On Behalf Of Air Chek, Inc.

Sent: Wednesday, August 18, 2010 1:11 PM

To: Dennis, Clyde B.

Subject: Radon Test Report #5694017,5694020,5694027,

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08/18/10 ACTIVATED CHARCOAL RADON TEST #5805176

\* Radon Test Result = 8.5 pCi/L

\* Test Started 08/11/10 at 4:00 pm

\* Test Ended 08/16/10 at 3:00 pm

\* Location Basement

108 ROXANNA ST MORRILL KS

**\*\* INTERPRETING YOUR TEST RESULT**

The USEPA states that for test results in this range (8 to 100 pCi/L) you should conduct a short-term follow-up measurement within the next few weeks, under closed house conditions. A long-term measurement is NOT recommended because additional exposure at these levels could pose an increased health risk. If, however this is a follow-up (confirming) test, it is recommended that you take remedial action to reduce these radon levels.

You may be able to obtain additional information about radon related subjects by calling your state radon officer at .  
Or call the "Radon Fix-It Line" at 800-644-6999 Monday thru Friday between NOON and 8 pm EST

-----Original Message-----

From: Air Chek Inc [mailto:apache@plus.airchek.com] On Behalf Of Air Chek, Inc.

Sent: Wednesday, August 18, 2010 1:11 PM

To: Dennis, Clyde B.

Subject: Radon Test Report #5694017,5694020,5694027,

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08/18/10 ACTIVATED CHARCOAL RADON TEST #5805161

\* Radon Test Result = 5.9 pCi/L

\* Test Started 08/12/10 at 4:00 pm

\* Test Ended 08/16/10 at 3:00 pm

\* Location 1st Floor

108 ROXANNA ST MORRILL KS

\*\* INTERPRETING YOUR TEST RESULT

The USEPA states that for test results in this range (4 to 8 pCi/L) you should conduct either a short- or long-term follow-up measurement. If, however, this is a follow-up (confirming) test, it is recommended that you take remedial action to reduce these radon levels.

You may be able to obtain additional information about radon related subjects by calling your state radon officer at .  
Or call the "Radon Fix-It Line" at 800-644-6999 Monday thru Friday between NOON and 8 pm EST

-----Original Message-----

From: Air Chek Inc [mailto:apache@plus.airchek.com] On Behalf Of Air Chek, Inc.

Sent: Wednesday, August 18, 2010 1:11 PM

To: Dennis, Clyde B.

Subject: Radon Test Report #5694017,5694020,5694027,

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08/18/10 ACTIVATED CHARCOAL RADON TEST #5805175

\* Radon Test Result = 1.3 pCi/L

\* Test Started 08/12/10 at 1:00 pm

\* Test Ended 08/16/10 at 2:00 pm

\* Location 1st Floor

202 ROXANNA ST 1ST MORRILL KS

\*\* INTERPRETING YOUR TEST RESULT

The USEPA states that there is little short-term risk with test results in this range (0.6 to 1.9 pCi/L). However, because radon levels fluctuate daily as well as seasonally, you may want to retest during another season. Additionally, if you make any structural changes or start to use a lower level of the building more frequently, you should test again.

You may be able to obtain additional information about radon related subjects by calling your state radon officer at .  
Or call the "Radon Fix-It Line" at 800-644-6999 Monday thru Friday between NOON and 8 pm EST

-----Original Message-----

From: Air Chek Inc [mailto:apache@plus.airchek.com] On Behalf Of Air Chek, Inc.

Sent: Wednesday, August 18, 2010 1:11 PM

To: Dennis, Clyde B.

Subject: Radon Test Report #5694017,5694020,5694027,

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08/18/10 ACTIVATED CHARCOAL RADON TEST #5805157

\* Radon Test Result = 1.4 pCi/L

\* Test Started 08/11/10 at 1:00 pm

\* Test Ended 08/16/10 at 2:00 pm

\* Location Basement

202 ROXANNA ST MORRILL KS

\*\* INTERPRETING YOUR TEST RESULT

The USEPA states that there is little short-term risk with test results in this range (0.6 to 1.9 pCi/L). However, because radon levels fluctuate daily as well as seasonally, you may want to retest during another season. Additionally, if you make any structural changes or start to use a lower level of the building more frequently, you should test again.

You may be able to obtain additional information about radon related subjects by calling your state radon officer at .  
Or call the "Radon Fix-It Line" at 800-644-6999 Monday thru Friday between NOON and 8 pm EST



-----Original Message-----

From: Air Chek Inc [mailto:apache@plus.airchek.com] On Behalf Of Air Chek, Inc.

Sent: Wednesday, August 18, 2010 1:11 PM

To: Dennis, Clyde B.

Subject: Radon Test Report #5694017,5694020,5694027,

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08/18/10 ACTIVATED CHARCOAL RADON TEST #5805150

\* Radon Test Result = 0.8 pCi/L

\* Test Started 08/12/10 at 2:00 pm

\* Test Ended 08/16/10 at 3:00 pm

\* Location 1st Floor

96 VIRGINIA ST MORRILL KS

\*\* INTERPRETING YOUR TEST RESULT

The USEPA states that there is little short-term risk with test results in this range (0.6 to 1.9 pCi/L). However, because radon levels fluctuate daily as well as seasonally, you may want to retest during another season. Additionally, if you make any structural changes or start to use a lower level of the building more frequently, you should test again.

You may be able to obtain additional information about radon related subjects by calling your state radon officer at .  
Or call the "Radon Fix-It Line" at 800-644-6999 Monday thru Friday between NOON and 8 pm EST

-----Original Message-----

From: Air Chek Inc [mailto:apache@plus.airchek.com] On Behalf Of Air Chek, Inc.

Sent: Wednesday, August 18, 2010 1:11 PM

To: Dennis, Clyde B.

Subject: Radon Test Report #5694017,5694020,5694027,

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08/18/10 ACTIVATED CHARCOAL RADON TEST #5805169

\* Radon Test Result = 2.2 pCi/L

\* Test Started 08/11/10 at 3:00 pm

\* Test Ended 08/16/10 at 3:00 pm

\* Location Basement

102 VIRGINIA ST MORRILL KS

**\*\* INTERPRETING YOUR TEST RESULT**

With results in this range (2.0 to 3.9 pCi/L) the USEPA recommends that you conduct further tests to determine the true annual average. If the result remains between 2 and 4 there is little short-term risk, but you should consider fixing your home. Additionally, if you make any structural changes or start to use a lower level of the building more frequently, you should test again.

You may be able to obtain additional information about radon related subjects by calling your state radon officer at .  
Or call the "Radon Fix-It Line" at 800-644-6999 Monday thru Friday between NOON and 8 pm EST

-----Original Message-----

From: Air Chek Inc [mailto:apache@plus.airchek.com] On Behalf Of Air Chek, Inc.

Sent: Wednesday, August 18, 2010 1:11 PM

To: Dennis, Clyde B.

Subject: Radon Test Report #5694017,5694020,5694027,

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08/18/10 ACTIVATED CHARCOAL RADON TEST #5805164

\* Radon Test Result = 1.2 pCi/L

\* Test Started 08/12/10 at 3:00 pm

\* Test Ended 08/16/10 at 3:00 pm

\* Location 1st Floor

102 VIRGINIA ST MORRILL KS

\*\* INTERPRETING YOUR TEST RESULT

The USEPA states that there is little short-term risk with test results in this range (0.6 to 1.9 pCi/L). However, because radon levels fluctuate daily as well as seasonally, you may want to retest during another season. Additionally, if you make any structural changes or start to use a lower level of the building more frequently, you should test again.

You may be able to obtain additional information about radon related subjects by calling your state radon officer at .  
Or call the "Radon Fix-It Line" at 800-644-6999 Monday thru Friday between NOON and 8 pm EST

-----Original Message-----

From: Air Chek Inc [mailto:apache@plus.airchek.com] On Behalf Of Air Chek, Inc.

Sent: Wednesday, August 18, 2010 1:11 PM

To: Dennis, Clyde B.

Subject: Radon Test Report #5694017,5694020,5694027,

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08/18/10 ACTIVATED CHARCOAL RADON TEST #5805177

\* Radon Test Result = 1.9 pCi/L

\* Test Started 08/12/10 at 3:00 pm

\* Test Ended 08/16/10 at 3:00 pm

\* Location 1st Floor

106 VIRGINIA ST 1ST MORRILL KS

**\*\* INTERPRETING YOUR TEST RESULT**

The USEPA states that there is little short-term risk with test results in this range (0.6 to 1.9 pCi/L). However, because radon levels fluctuate daily as well as seasonally, you may want to retest during another season. Additionally, if you make any structural changes or start to use a lower level of the building more frequently, you should test again.

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Or call the "Radon Fix-It Line" at 800-644-6999 Monday thru Friday between NOON and 8 pm EST

## ANALYTICAL REPORT

Job Number: 200-1136-1

SDG Number: MORRILL (200-1136)

Job Description: MORRILL (200-1136)

Contract Number: 8E-00302

For:

Argonne National Laboratory

9700 South Cass Avenue

Building 203

Office B-149

Argonne, IL 60439

Attention: Mr. Clyde Dennis



Approved for release.  
Kirk F Young  
Project Manager I  
8/25/2010 3:24 PM

---

Kirk F Young

Project Manager I

kirk.young@testamericainc.com

08/25/2010

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

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403

Tel (802) 660-1990 Fax (802) 660-1919 [www.testamericainc.com](http://www.testamericainc.com)



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**Client: Argonne National Laboratory**

**Project: MORRILL (200-1136)**

**Report Number: 200-1136-1**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples. Problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established limits. Each sample in the sample set was analyzed without a dilution.

Calculations are 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 08/14/2000. Documentation of the condition of the samples at the time of receipt and exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The summary canisters and flow regulators that were used in the collection of the samples were prepared and tested by TestAmerica Burlington.

The canister label for sample 96 VIRGA ST OFFICE did not match the information listed on the Chain-of-Custody (COC). The canister label listed a canister number of 5073. The COC listed a canister number of 3073. The sample was logged in using the label that corresponded to the canister used for this sample.

The canister label for sample 202 ROXANNA ST BASEMENT did not match the information listed on the Chain-of-Custody. The canister label listed a canister number of 5087. The COC listed a canister number of 5082. The sample was logged in using the label that corresponded to the canister used for this sample.

The canister that was received for sample 104 ROXANNA ST BASEMENT was received at near ambient pressure (-0.0 in. Hg). This was identified to the project team, and the laboratory was directed to proceed with the analysis of sample 104 ROXANNA ST BASEMENT.

**VOLATILE ORGANIC COMPOUNDS IN AMBIENT AIR**

The samples in this sample set were analyzed for volatile organics by USEPA Method TO-15. The analytical results of the samples are reported in terms of parts per billion on a volume/volume basis (ppbv), with a conversion factor to a weight/volume basis ( $\mu\text{g}/\text{m}^3$ ). Results are reported only for those instrument responses which derived values equal to or above the reporting limit. Estimated values are not reported for responses which derived values below the reporting limit.

The responses in the initial calibration for each target analyte met the 30 percent relative standard deviation criterion for each target analyte met the 30 percent difference criterion in the calibration check acquisition. The analyses associated with the analytical work exhibited an acceptable internal standard performance. A laboratory sample was analyzed in the analytical sequence, and there was an acceptable recovery of each target analyte. The analysis of the method blank associated with the analytical work was free of analyte contamination.



**TestAmerica Burlington**

30 Community Drive

Suite 11

South Burlington, VT 05403

phone 802-660-1990 fax 802-660-1919

**Canister Samples Chain of Custody Record**

*TestAmerica Analytical Testing Corp. assumes no liability with respect to the collection and shipment of these samples.*

Argonne National Lab 9700 S Cass Ave Lemont IL 60439 Fax: (630) 252 - 5747	P P E S T	Project Manager: Lorraine LaFreniere (630) 252 - 7969 <a href="mailto:lafreniere@anl.gov">lafreniere@anl.gov</a> TA Contact: Kirk Young	Samples Collected By: <u>Travis Kamler</u>   1 of 4 COCs
---	-----------------------	---	--

Project Name: <u>Morrill Indoor Air</u> Site: <u>Morrill KS</u> PO# <u>8A727-D3-167</u>	Analysis Turnaround Time Standard (Specify) Rush (Specify)
---	--

Sample Identification	Aug 2010	8-11	8-12	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Filter Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
104 Roxanna St 1st	11-12	1506	1507	-28	-03	5226	5124	X							X				
104 Roxanna St Basement	11-12	1512	1511	-28	-00	5233	5076	X							X				
102 Virginia St 1st	11-12	1524	1529	-29	-08	3295	5091	X							X				
102 Virginia St Basement	11-12	1527	1533	-28	-06	5234	5133	X							X				

	Temperature (Fahrenheit)	
	Interior	Ambient
Start		
Stop		
	Pressure (Inches of Hg)	
	Interior	Ambient
Start		
Stop		

**Special Instructions/QC Requirements & Comments:**

Samples Shipped by: <u>Travis Kamler</u>	Date/Time: <u>8-12-10 23:23</u>	Samples Received by: <u>Travis Kamler 8/14/10 0950</u>
Samples Relinquished by:	Date/Time:	Received by:
Relinquished by:	Date/Time:	Received by:

Lab Use Only      Shipper Name: \_\_\_\_\_      Opened by: \_\_\_\_\_      Condition: \_\_\_\_\_

**TestAmerica Burlington**

30 Community Drive

Suite 11

South Burlington, VT 05403

Phone 802-660-1990 fax 802-660-1919

**Canister Samples Chain of Custody Record**

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Argonne National Lab 9700 S Cass Ave Lemont IL 60439 Fax: (630) 252 - 5747	Project Manager: Lorraine LaFreniere (630) 252 - 7969 lafreniere@anl.gov TA Contact: Kirk Young	Samples Collected By: <i>Travis Kemler</i> <b>2</b> of <b>4</b> COCs
---	---	--

Project Name: <i>Morrill Indoor Air</i>	Analysis Turnaround Time	
Site: <i>Morrill KS</i>	Standard (Specify)	
PO# <i>8A727-D3-167</i>	Rush (Specify)	

Sample Identification	Aug 2010	8-11	8-12	Canister Vacuum In Field, "Hg (Start)	Canister Vacuum In Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
	Sample Date(s)	Time Start	Time Stop																
<i>202 Roxanna St 1st</i>	<i>11-12</i>	<i>1302</i>	<i>1304</i>	<i>-29</i>	<i>-06</i>	<i>4046</i>	<i>5132</i>	<i>X</i>							<i>X</i>				
<i>202 Roxanna St Basement</i>	<i>11-12</i>	<i>1306</i>	<i>1306</i>	<i>-30</i>	<i>-10</i>	<i>3113</i>	<i>5082</i>	<i>X</i>							<i>X</i>				
<i>203 Roxanna St 1st</i>	<i>11-12</i>	<i>13-15</i>	<i>1317</i>	<i>-27</i>	<i>-06</i>	<i>4491</i>	<i>5127</i>	<i>X</i>							<i>X</i>				
<i>107 Roxanna St Main Room</i>	<i>11-12</i>	<i>1716</i>	<i>1716</i>	<i>-28</i>	<i>-07</i>	<i>5220</i>	<i>5114</i>	<i>X</i>							<i>X</i>				

	Temperature (Fahrenheit)	
	Interior	Ambient
	Start	
	Stop	
	Pressure (Inches of Hg)	
	Interior	Ambient
	Start	
	Stop	

Special Instructions/QC Requirements & Comments:

Samples Shipped by: <i>Travis Kemler</i>	Date/Time: <i>8/12/10 23:23</i>	Samples Received by: <i>Travis Kemler 8/14/10 0950</i>	
Samples Relinquished by:	Date/Time:	Received by:	
Relinquished by:	Date/Time:	Received by:	

Lab Use Only Shipper Name: \_\_\_\_\_ Opened by: \_\_\_\_\_ Condition: \_\_\_\_\_

**TestAmerica Burlington**

30 Community Drive

Suite 11

South Burlington, VT 05403

phone 802-660-1990 fax 802-660-1919

**Canister Samples Chain of Custody Record**

*TestAmerica Analytical Testing Corp. assumes no liability with respect to the collection and shipment of these samples.*

Argonne National Lab 9700 S Cass Ave Lemont IL 60439 Fax: (630) 252 - 5747		Project Manager: Lorraine LaFreniere (630) 252 - 7969 <a href="mailto:lafreniere@anl.gov">lafreniere@anl.gov</a> TA Contact: Kirk Young				Samples Collected By: <i>Travis Kemler</i> <b>3</b> of <b>4</b> COCs																							
Project Name: <i>Morrill Indoor Air</i>		Analysis Turnaround Time																											
Site: <i>Morrill KS</i>		Standard (Specify)																											
PO # <i>8A727-D3-167</i>		Rush (Specify)																											
Sample Identification	Aug 2010 Sample Date(s)	8-11 Time Start	8-12 Time Stop	Canister Vacuum In Field, "Hg (Start)	Canister Vacuum In Field, 'Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)										
<i>96 Virginia St Office</i>	<i>11-12</i>	<i>1435</i>	<i>1434</i>	<i>-28</i>	<i>-04</i>	<i>3055</i>	<i>3073</i>	<i>X</i>							<i>X</i>														
<i>Ambient Air MW 1</i>	<i>11-12</i>	<i>1458</i>	<i>1447</i>	<i>-28</i>	<i>-07</i>	<i>5228</i>	<i>5134</i>	<i>X</i>								<i>X</i>													
<i>107 Roxanna St Office</i>	<i>11-12</i>	<i>1712</i>	<i>1711</i>	<i>-28</i>	<i>-06</i>	<i>5227</i>	<i>4550</i>	<i>X</i>							<i>X</i>														
<i>107 Roxanna St Kid Room</i>	<i>11-12</i>	<i>1714</i>	<i>1714</i>	<i>-28</i>	<i>-08</i>	<i>5230</i>	<i>5120</i>	<i>X</i>							<i>X</i>														
Temperature (Fahrenheit)																													
										Interior										Ambient									
										Start										Stop									
Pressure (Inches of Hg)																													
										Interior										Ambient									
										Start										Stop									
Special Instructions/QC Requirements & Comments:																													
Samples Shipped by: <i>Travis Kemler</i>					Date/Time: <i>8/12/10 23:23</i>					Samples Received by: <i>Travis Kemler 8/14/10 09:50</i>																			
Samples Relinquished by:					Date/Time:					Received by:																			
Relinquished by:					Date/Time:					Received by:																			

**TestAmerica Burlington**

30 Community Drive

Suite 11

South Burlington, VT 05403

Phone 802-660-1990 fax 802-660-1919

**Canister Samples Chain of Custody Record**

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Argonne National Lab 9700 S Cass Ave Lemont IL 60439 Fax: (630) 252 - 5747		Project Manager: Lorraine LaFreniere (630) 252 - 7969 lafreniere@anl.gov TA Contact: Kirk Young		Samples Collected By: <i>Travis Kanler</i>				4 of 4 COCs											
Project Name: <i>Morrill Indoor Air</i>		Analysis Turnaround Time																	
Site: <i>Morrill KS</i>		Standard (Specify)																	
PO# <i>8A727-D3-167</i>		Rush (Specify)																	
Sample Identification	Aug 2010 Sample Date(s)	8-11 Time Start	8-12 Time Stop	Canister Vacuum In Field, "Hg (Start)	Canister Vacuum In Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
<i>108 Roxanna St 1st</i>	<i>11-12</i>	<i>1540</i>	<i>1539</i>	<i>-28</i>	<i>-07</i>	<i>5238</i>	<i>5126</i>	<i>X</i>							<i>X</i>				
<i>108 Roxanna St Basement</i>	<i>11-12</i>	<i>1542</i>	<i>1543</i>	<i>-28</i>	<i>-07</i>	<i>5232</i>	<i>5090</i>	<i>X</i>							<i>X</i>				
<i>106 Virginia St 1st</i>	<i>11-12</i>	<i>1620</i>	<i>1451</i>	<i>-28</i>	<i>-08</i>	<i>5214</i>	<i>5088</i>	<i>X</i>							<i>X</i>				
<i>105 Roxanna St 1st</i>	<i>11-12</i>	<i>1724</i>	<i>1703</i>	<i>-28</i>	<i>-07</i>	<i>4062</i>	<i>5078</i>	<i>X</i>							<i>X</i>				
		Temperature (Fahrenheit)																	
		Interior		Ambient															
		Start																	
		Stop																	
		Pressure (Inches of Hg)																	
		Interior		Ambient															
		Start																	
		Stop																	
Special Instructions/QC Requirements & Comments:																			
Samples Shipped by: <i>Travis Kanler</i>				Date/Time: <i>8/12/10 23:23</i>				Samples Received by: <i>Travis Kanler</i>				Date/Time: <i>8/14/10 0950</i>							
Samples Relinquished by:				Date/Time:				Received by:											
Relinquished by:				Date/Time:				Received by:											

TestAmerica Burlington  
INTERNAL CHAIN OF CUSTODY LOG (ICOC)

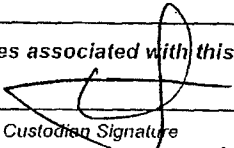
Project Information:

Log In #: 2000-1136 Method: TO-15

Client: ARGLAB LAB IDs: 200-1136-1 thru 1136-16

Samples associated with this log-in were placed into storage on 08/16/10 1345 by:

(Date) (Time<sup>2</sup>)

Sample Custodian Signature 

Storage Location: Air Storage Specify storage location (refrigerator, freezer ID or lab location) for original sample containers

Storage Condition:  Refrigeration  Frozen  Ambient

Sample Type		Lab ID(s)	Transfer Date	Transfer Time <sup>2</sup>	Purpose of Transfer			Relinquished By:	Received By:	Storage Location Prepared Sample <sup>1</sup>
Original	Prepared <sup>1</sup>				Prep	Analysis	Storage			
✓		1-16	8-17-10	1605	✓			<u>Thomas Jackson</u>	<u>Thomas Jackson</u>	Air Prep
<del>✓</del>		1-16	8-17-10	1632			✓	<u>Thomas Jackson</u>	<u>Thomas Jackson</u>	Air Lab
<del>✓</del>		"	8/21/10	1002			✓	<u>[Signature]</u>	<u>[Signature]</u>	Analysis
<del>✓</del>		"	8/27/10	1100			✓	<u>[Signature]</u>	<u>[Signature]</u>	Storage

<sup>1</sup> Extract, digestate, or any other prepared sample that is no longer in original sample container

<sup>2</sup> Military Time

BRFSR012.07.09.10:2  
TestAmerica

## SAMPLE SUMMARY

Client: Argonne National Laboratory

Job Number: 200-1136-1  
Sdg Number: MORRILL (200-1136)

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled		Date/Time Received	
200-1136-1	104 ROXANNA ST 1ST	Air	08/12/2010	1507	08/16/2010	0950
200-1136-2	104 ROXANNA ST BASEMENT	Air	08/12/2010	1511	08/16/2010	0950
200-1136-3	102 VIRGINIA ST 1ST	Air	08/12/2010	1529	08/16/2010	0950
200-1136-4	102 VIRGINIA ST BASEMENT	Air	08/12/2010	1533	08/16/2010	0950
200-1136-5	202 ROXANNA ST 1ST	Air	08/12/2010	1304	08/16/2010	0950
200-1136-6	202 ROXANNA ST BASEMENT	Air	08/12/2010	1306	08/16/2010	0950
200-1136-7	203 ROXANNA ST 1ST	Air	08/12/2010	1317	08/16/2010	0950
200-1136-8	107 ROXANNA ST MAIN ROOM	Air	08/12/2010	1716	08/16/2010	0950
200-1136-9	96 VIRGINIA ST OFFICE	Air	08/12/2010	1434	08/16/2010	0950
200-1136-10	AMBIENT AIR MW1	Air	08/12/2010	1447	08/16/2010	0950
200-1136-11	107 ROXANNA ST OFFICE	Air	08/12/2010	1711	08/16/2010	0950
200-1136-12	107 ROXANNA ST KID ROOM	Air	08/12/2010	1714	08/16/2010	0950
200-1136-13	108 ROXANNA ST 1ST	Air	08/12/2010	1539	08/16/2010	0950
200-1136-14	108 ROXANNA ST BASEMENT	Air	08/12/2010	1543	08/16/2010	0950
200-1136-15	106 VIRGINIA ST 1ST	Air	08/12/2010	1451	08/16/2010	0950
200-1136-16	105 ROXANNA ST 1ST	Air	08/12/2010	1703	08/16/2010	0950

## METHOD SUMMARY

Client: Argonne National Laboratory

Job Number: 200-1136-1  
Sdg Number: MORRILL (200-1136)

<b>Description</b>	<b>Lab</b>	<b>Location</b>	<b>Method</b>	<b>Preparation Method</b>
<b>Matrix: Air</b>				
Volatile Organic Compounds in Ambient Air	TAL BUR		EPA TO-15	
Collection via Summa Canister	TAL BUR			Summa Canister

### Lab References:

TAL BUR = TestAmerica Burlington

### Method References:

EPA = US Environmental Protection Agency

## METHOD / ANALYST SUMMARY

Client: Argonne National Laboratory

Job Number: 200-1136-1  
Sdg Number: MORRILL (200-1136)

<b>Method</b>	<b>Analyst</b>	<b>Analyst ID</b>
EPA TO-15	Vajjevac, Sanel	SV



## Analytical Data

Client: Argonne National Laboratory

Job Number: 200-1136-1  
Sdg Number: MORRILL (200-1136)

Client Sample ID: 104 ROXANNA ST 1ST

Lab Sample ID: 200-1136-1  
Client Matrix: Air

Date Sampled: 08/12/2010 1507  
Date Received: 08/16/2010 0950

### TO-15 Volatile Organic Compounds in Ambient Air

Method:	TO-15	Analysis Batch: 200-5449	Instrument ID:	G.i
Preparation:	Summa Canister		Lab File ID:	geuj005.d
Dilution:	1.0		Initial Weight/Volume:	200 mL
Date Analyzed:	08/21/2010 1810		Final Weight/Volume:	200 mL
Date Prepared:	08/21/2010 1810		Injection Volume:	200 mL

Analyte	Result (ppb v/v)	Qualifier	MDL	RL
Chloroform	0.22		0.050	0.20
Carbon tetrachloride	0.20	U	0.050	0.20

Analyte	Result (ug/m3)	Qualifier	MDL	RL
Chloroform	1.1		0.24	0.98
Carbon tetrachloride	1.3	U	0.31	1.3

## Analytical Data

Client: Argonne National Laboratory

Job Number: 200-1136-1  
Sdg Number: MORRILL (200-1136)

Client Sample ID: 104 ROXANNA ST BASEMENT

Lab Sample ID: 200-1136-2  
Client Matrix: Air

Date Sampled: 08/12/2010 1511  
Date Received: 08/16/2010 0950

### TO-15 Volatile Organic Compounds in Ambient Air

Method:	TO-15	Analysis Batch: 200-5449	Instrument ID:	G.i
Preparation:	Summa Canister		Lab File ID:	geuj006.d
Dilution:	1.0		Initial Weight/Volume:	200 mL
Date Analyzed:	08/21/2010 1858		Final Weight/Volume:	200 mL
Date Prepared:	08/21/2010 1858		Injection Volume:	200 mL

Analyte	Result (ppb v/v)	Qualifier	MDL	RL
Chloroform	0.26		0.050	0.20
Carbon tetrachloride	0.20	U	0.050	0.20

Analyte	Result (ug/m3)	Qualifier	MDL	RL
Chloroform	1.3		0.24	0.98
Carbon tetrachloride	1.3	U	0.31	1.3

## Analytical Data

Client: Argonne National Laboratory

Job Number: 200-1136-1  
Sdg Number: MORRILL (200-1136)

Client Sample ID: 102 VIRGINIA ST 1ST

Lab Sample ID: 200-1136-3  
Client Matrix: Air

Date Sampled: 08/12/2010 1529  
Date Received: 08/16/2010 0950

### TO-15 Volatile Organic Compounds in Ambient Air

Method:	TO-15	Analysis Batch:	200-5449	Instrument ID:	G.i
Preparation:	Summa Canister			Lab File ID:	geuj007.d
Dilution:	1.0			Initial Weight/Volume:	200 mL
Date Analyzed:	08/21/2010 1946			Final Weight/Volume:	200 mL
Date Prepared:	08/21/2010 1946			Injection Volume:	200 mL

Analyte	Result (ppb v/v)	Qualifier	MDL	RL
Chloroform	0.79		0.050	0.20
Carbon tetrachloride	0.20	U	0.050	0.20

Analyte	Result (ug/m3)	Qualifier	MDL	RL
Chloroform	3.8		0.24	0.98
Carbon tetrachloride	1.3	U	0.31	1.3

## Analytical Data

Client: Argonne National Laboratory

Job Number: 200-1136-1  
Sdg Number: MORRILL (200-1136)

Client Sample ID: 102 VIRGINIA ST BASEMENT

Lab Sample ID: 200-1136-4  
Client Matrix: Air

Date Sampled: 08/12/2010 1533  
Date Received: 08/16/2010 0950

### TO-15 Volatile Organic Compounds in Ambient Air

Method:	TO-15	Analysis Batch:	200-5449	Instrument ID:	G.i
Preparation:	Summa Canister			Lab File ID:	geuj008.d
Dilution:	1.0			Initial Weight/Volume:	200 mL
Date Analyzed:	08/21/2010 2035			Final Weight/Volume:	200 mL
Date Prepared:	08/21/2010 2035			Injection Volume:	200 mL

Analyte	Result (ppb v/v)	Qualifier	MDL	RL
Chloroform	0.85		0.050	0.20
Carbon tetrachloride	0.20	U	0.050	0.20

Analyte	Result (ug/m3)	Qualifier	MDL	RL
Chloroform	4.1		0.24	0.98
Carbon tetrachloride	1.3	U	0.31	1.3

## Analytical Data

Client: Argonne National Laboratory

Job Number: 200-1136-1  
Sdg Number: MORRILL (200-1136)

Client Sample ID: 202 ROXANNA ST 1ST

Lab Sample ID: 200-1136-5  
Client Matrix: Air

Date Sampled: 08/12/2010 1304  
Date Received: 08/16/2010 0950

### TO-15 Volatile Organic Compounds in Ambient Air

Method:	TO-15	Analysis Batch: 200-5449	Instrument ID:	G.i
Preparation:	Summa Canister		Lab File ID:	geuj009.d
Dilution:	1.0		Initial Weight/Volume:	200 mL
Date Analyzed:	08/21/2010 2123		Final Weight/Volume:	200 mL
Date Prepared:	08/21/2010 2123		Injection Volume:	200 mL

Analyte	Result (ppb v/v)	Qualifier	MDL	RL
Chloroform	0.72		0.050	0.20
Carbon tetrachloride	0.20	U	0.050	0.20

Analyte	Result (ug/m3)	Qualifier	MDL	RL
Chloroform	3.5		0.24	0.98
Carbon tetrachloride	1.3	U	0.31	1.3

## Analytical Data

Client: Argonne National Laboratory

Job Number: 200-1136-1  
Sdg Number: MORRILL (200-1136)

Client Sample ID: 202 ROXANNA ST BASEMENT

Lab Sample ID: 200-1136-6  
Client Matrix: Air

Date Sampled: 08/12/2010 1306  
Date Received: 08/16/2010 0950

### TO-15 Volatile Organic Compounds in Ambient Air

Method:	TO-15	Analysis Batch: 200-5449	Instrument ID:	G.i
Preparation:	Summa Canister		Lab File ID:	geuj010.d
Dilution:	1.0		Initial Weight/Volume:	200 mL
Date Analyzed:	08/21/2010 2212		Final Weight/Volume:	200 mL
Date Prepared:	08/21/2010 2212		Injection Volume:	200 mL

Analyte	Result (ppb v/v)	Qualifier	MDL	RL
Chloroform	0.20	U	0.050	0.20
Carbon tetrachloride	0.20	U	0.050	0.20

Analyte	Result (ug/m3)	Qualifier	MDL	RL
Chloroform	0.98	U	0.24	0.98
Carbon tetrachloride	1.3	U	0.31	1.3

## Analytical Data

Client: Argonne National Laboratory

Job Number: 200-1136-1  
Sdg Number: MORRILL (200-1136)

Client Sample ID: 203 ROXANNA ST 1ST

Lab Sample ID: 200-1136-7  
Client Matrix: Air

Date Sampled: 08/12/2010 1317  
Date Received: 08/16/2010 0950

### TO-15 Volatile Organic Compounds in Ambient Air

Method:	TO-15	Analysis Batch: 200-5449	Instrument ID:	G.i
Preparation:	Summa Canister		Lab File ID:	geuj011.d
Dilution:	1.0		Initial Weight/Volume:	200 mL
Date Analyzed:	08/21/2010 2300		Final Weight/Volume:	200 mL
Date Prepared:	08/21/2010 2300		Injection Volume:	200 mL

Analyte	Result (ppb v/v)	Qualifier	MDL	RL
Chloroform	1.8		0.050	0.20
Carbon tetrachloride	0.20	U	0.050	0.20

Analyte	Result (ug/m3)	Qualifier	MDL	RL
Chloroform	8.7		0.24	0.98
Carbon tetrachloride	1.3	U	0.31	1.3

## Analytical Data

Client: Argonne National Laboratory

Job Number: 200-1136-1  
Sdg Number: MORRILL (200-1136)

Client Sample ID: 107 ROXANNA ST MAIN ROOM

Lab Sample ID: 200-1136-8  
Client Matrix: Air

Date Sampled: 08/12/2010 1716  
Date Received: 08/16/2010 0950

### TO-15 Volatile Organic Compounds in Ambient Air

Method:	TO-15	Analysis Batch: 200-5449	Instrument ID:	G.i
Preparation:	Summa Canister		Lab File ID:	geuj012.d
Dilution:	1.0		Initial Weight/Volume:	200 mL
Date Analyzed:	08/21/2010 2348		Final Weight/Volume:	200 mL
Date Prepared:	08/21/2010 2348		Injection Volume:	200 mL

Analyte	Result (ppb v/v)	Qualifier	MDL	RL
Chloroform	0.20	U	0.050	0.20
Carbon tetrachloride	0.20	U	0.050	0.20

Analyte	Result (ug/m3)	Qualifier	MDL	RL
Chloroform	0.98	U	0.24	0.98
Carbon tetrachloride	1.3	U	0.31	1.3



## Analytical Data

Client: Argonne National Laboratory

Job Number: 200-1136-1  
Sdg Number: MORRILL (200-1136)

Client Sample ID: 96 VIRGINIA ST OFFICE

Lab Sample ID: 200-1136-9  
Client Matrix: Air

Date Sampled: 08/12/2010 1434  
Date Received: 08/16/2010 0950

### TO-15 Volatile Organic Compounds in Ambient Air

Method:	TO-15	Analysis Batch: 200-5449	Instrument ID:	G.i
Preparation:	Summa Canister		Lab File ID:	geuj013.d
Dilution:	1.0		Initial Weight/Volume:	200 mL
Date Analyzed:	08/22/2010 0037		Final Weight/Volume:	200 mL
Date Prepared:	08/22/2010 0037		Injection Volume:	200 mL

Analyte	Result (ppb v/v)	Qualifier	MDL	RL
Chloroform	5.4		0.050	0.20
Carbon tetrachloride	0.20	U	0.050	0.20

Analyte	Result (ug/m3)	Qualifier	MDL	RL
Chloroform	26		0.24	0.98
Carbon tetrachloride	1.3	U	0.31	1.3

## Analytical Data

Client: Argonne National Laboratory

Job Number: 200-1136-1  
Sdg Number: MORRILL (200-1136)

Client Sample ID: AMBIENT AIR MW1

Lab Sample ID: 200-1136-10  
Client Matrix: Air

Date Sampled: 08/12/2010 1447  
Date Received: 08/16/2010 0950

### TO-15 Volatile Organic Compounds in Ambient Air

Method:	TO-15	Analysis Batch:	200-5449	Instrument ID:	G.i
Preparation:	Summa Canister			Lab File ID:	geuj014.d
Dilution:	1.0			Initial Weight/Volume:	200 mL
Date Analyzed:	08/22/2010 0125			Final Weight/Volume:	200 mL
Date Prepared:	08/22/2010 0125			Injection Volume:	200 mL

Analyte	Result (ppb v/v)	Qualifier	MDL	RL
Chloroform	0.20	U	0.050	0.20
Carbon tetrachloride	0.20	U	0.050	0.20

Analyte	Result (ug/m3)	Qualifier	MDL	RL
Chloroform	0.98	U	0.24	0.98
Carbon tetrachloride	1.3	U	0.31	1.3

## Analytical Data

Client: Argonne National Laboratory

Job Number: 200-1136-1  
Sdg Number: MORRILL (200-1136)

Client Sample ID: 107 ROXANNA ST OFFICE

Lab Sample ID: 200-1136-11  
Client Matrix: Air

Date Sampled: 08/12/2010 1711  
Date Received: 08/16/2010 0950

### TO-15 Volatile Organic Compounds in Ambient Air

Method:	TO-15	Analysis Batch: 200-5449	Instrument ID:	G.i
Preparation:	Summa Canister		Lab File ID:	geuj015.d
Dilution:	1.0		Initial Weight/Volume:	200 mL
Date Analyzed:	08/22/2010 0213		Final Weight/Volume:	200 mL
Date Prepared:	08/22/2010 0213		Injection Volume:	200 mL

Analyte	Result (ppb v/v)	Qualifier	MDL	RL
Chloroform	0.20	U	0.050	0.20
Carbon tetrachloride	0.20	U	0.050	0.20

Analyte	Result (ug/m3)	Qualifier	MDL	RL
Chloroform	0.98	U	0.24	0.98
Carbon tetrachloride	1.3	U	0.31	1.3

## Analytical Data

Client: Argonne National Laboratory

Job Number: 200-1136-1  
Sdg Number: MORRILL (200-1136)

Client Sample ID: 107 ROXANNA ST KID ROOM

Lab Sample ID: 200-1136-12  
Client Matrix: Air

Date Sampled: 08/12/2010 1714  
Date Received: 08/16/2010 0950

### TO-15 Volatile Organic Compounds in Ambient Air

Method:	TO-15	Analysis Batch: 200-5449	Instrument ID:	G.i
Preparation:	Summa Canister		Lab File ID:	geuj016.d
Dilution:	1.0		Initial Weight/Volume:	200 mL
Date Analyzed:	08/22/2010 0301		Final Weight/Volume:	200 mL
Date Prepared:	08/22/2010 0301		Injection Volume:	200 mL

Analyte	Result (ppb v/v)	Qualifier	MDL	RL
Chloroform	0.20	U	0.050	0.20
Carbon tetrachloride	0.20	U	0.050	0.20

Analyte	Result (ug/m3)	Qualifier	MDL	RL
Chloroform	0.98	U	0.24	0.98
Carbon tetrachloride	1.3	U	0.31	1.3

## Analytical Data

Client: Argonne National Laboratory

Job Number: 200-1136-1  
Sdg Number: MORRILL (200-1136)

Client Sample ID: 108 ROXANNA ST 1ST

Lab Sample ID: 200-1136-13  
Client Matrix: Air

Date Sampled: 08/12/2010 1539  
Date Received: 08/16/2010 0950

### TO-15 Volatile Organic Compounds in Ambient Air

Method:	TO-15	Analysis Batch: 200-5449	Instrument ID:	G.i
Preparation:	Summa Canister		Lab File ID:	geuj017.d
Dilution:	1.0		Initial Weight/Volume:	200 mL
Date Analyzed:	08/22/2010 0350		Final Weight/Volume:	200 mL
Date Prepared:	08/22/2010 0350		Injection Volume:	200 mL

Analyte	Result (ppb v/v)	Qualifier	MDL	RL
Chloroform	0.75		0.050	0.20
Carbon tetrachloride	0.20	U	0.050	0.20

Analyte	Result (ug/m3)	Qualifier	MDL	RL
Chloroform	3.6		0.24	0.98
Carbon tetrachloride	1.3	U	0.31	1.3

## Analytical Data

Client: Argonne National Laboratory

Job Number: 200-1136-1  
Sdg Number: MORRILL (200-1136)

Client Sample ID: 108 ROXANNA ST BASEMENT

Lab Sample ID: 200-1136-14  
Client Matrix: Air

Date Sampled: 08/12/2010 1543  
Date Received: 08/16/2010 0950

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### TO-15 Volatile Organic Compounds in Ambient Air

Method:	TO-15	Analysis Batch: 200-5449	Instrument ID:	G.i
Preparation:	Summa Canister		Lab File ID:	geuj018.d
Dilution:	1.0		Initial Weight/Volume:	200 mL
Date Analyzed:	08/22/2010 0438		Final Weight/Volume:	200 mL
Date Prepared:	08/22/2010 0438		Injection Volume:	200 mL

Analyte	Result (ppb v/v)	Qualifier	MDL	RL
Chloroform	0.94		0.050	0.20
Carbon tetrachloride	0.20	U	0.050	0.20

Analyte	Result (ug/m3)	Qualifier	MDL	RL
Chloroform	4.6		0.24	0.98
Carbon tetrachloride	1.3	U	0.31	1.3

## Analytical Data

Client: Argonne National Laboratory

Job Number: 200-1136-1  
Sdg Number: MORRILL (200-1136)

Client Sample ID: 106 VIRGINIA ST 1ST

Lab Sample ID: 200-1136-15  
Client Matrix: Air

Date Sampled: 08/12/2010 1451  
Date Received: 08/16/2010 0950

### TO-15 Volatile Organic Compounds in Ambient Air

Method:	TO-15	Analysis Batch:	200-5449	Instrument ID:	G.i
Preparation:	Summa Canister			Lab File ID:	geuj019.d
Dilution:	1.0			Initial Weight/Volume:	200 mL
Date Analyzed:	08/22/2010 0526			Final Weight/Volume:	200 mL
Date Prepared:	08/22/2010 0526			Injection Volume:	200 mL

Analyte	Result (ppb v/v)	Qualifier	MDL	RL
Chloroform	0.45		0.050	0.20
Carbon tetrachloride	0.20	U	0.050	0.20

Analyte	Result (ug/m3)	Qualifier	MDL	RL
Chloroform	2.2		0.24	0.98
Carbon tetrachloride	1.3	U	0.31	1.3

## Analytical Data

Client: Argonne National Laboratory

Job Number: 200-1136-1  
Sdg Number: MORRILL (200-1136)

Client Sample ID: 105 ROXANNA ST 1ST

Lab Sample ID: 200-1136-16  
Client Matrix: Air

Date Sampled: 08/12/2010 1703  
Date Received: 08/16/2010 0950

### TO-15 Volatile Organic Compounds in Ambient Air

Method:	TO-15	Analysis Batch:	200-5449	Instrument ID:	G.i
Preparation:	Summa Canister			Lab File ID:	geuj020.d
Dilution:	1.0			Initial Weight/Volume:	200 mL
Date Analyzed:	08/22/2010 0614			Final Weight/Volume:	200 mL
Date Prepared:	08/22/2010 0614			Injection Volume:	200 mL

Analyte	Result (ppb v/v)	Qualifier	MDL	RL
Chloroform	0.21		0.050	0.20
Carbon tetrachloride	0.20	U	0.050	0.20

Analyte	Result (ug/m3)	Qualifier	MDL	RL
Chloroform	1.0		0.24	0.98
Carbon tetrachloride	1.3	U	0.31	1.3



## Quality Control Results

Client: Argonne National Laboratory

Job Number: 200-1136-1  
Sdg Number: MORRILL (200-1136)

**Method Blank - Batch: 200-5449**

**Method: D-15**  
**Preparation: Summa Canister**

Lab Sample ID: MB 200-5449/4  
Client Matrix: Air  
Dilution: 1.0  
Date Analyzed: 08/21/2010 1721  
Date Prepared: 08/21/2010 1721

Analysis Batch: 200-5449  
Prep Batch: N/A  
Units: ppb v/v

Instrument ID: G.i  
Lab File ID: geuj004.d  
Initial Weight/Volume: 200 mL  
Final Weight/Volume: 200 mL  
Injection Volume: 200 mL

Analyte	Result	Qual	MDL	RL
Chloroform	0.20	U	0.050	0.20
Carbon tetrachloride	0.20	U	0.050	0.20

**Method Blank - Batch: 200-5449**

**Method: D-15**  
**Preparation: Summa Canister**

Lab Sample ID: MB 200-5449/4  
Client Matrix: Air  
Dilution: 1.0  
Date Analyzed: 08/21/2010 1721  
Date Prepared: 08/21/2010 1721

Analysis Batch: 200-5449  
Prep Batch: N/A  
Units: ug/m3

Instrument ID: G.i  
Lab File ID: geuj004.d  
Initial Weight/Volume: 200 mL  
Final Weight/Volume: 200 mL  
Injection Volume: 200 mL

Analyte	Result	Qual	MDL	RL
Chloroform	0.98	U	0.24	0.98
Carbon tetrachloride	1.3	U	0.31	1.3

**Lab Control Sample - Batch: 200-5449**

**Method: D-15**  
**Preparation: Summa Canister**

Lab Sample ID: LCS 200-5449/3  
Client Matrix: Air  
Dilution: 1.0  
Date Analyzed: 08/21/2010 1633  
Date Prepared: 08/21/2010 1633

Analysis Batch: 200-5449  
Prep Batch: N/A  
Units: ppb v/v

Instrument ID: G.i  
Lab File ID: geuj003.d  
Initial Weight/Volume: 200 mL  
Final Weight/Volume: 200 mL  
Injection Volume: 200 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chloroform	10.0	10.9	109	70 - 130	
Carbon tetrachloride	10.0	10.4	104	70 - 130	

## DATA REPORTING QUALIFIERS

Client: Argonne National Laboratory

Job Number: 200-1136-1  
Sdg Number: MORRILL (200-1136)

<u>Lab Section</u>	<u>Qualifier</u>	<u>Description</u>
Air - GC/MS VOA	U	Indicates the analyte was analyzed for but not detected.

# Method T015

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Volatile Organic Compounds (GC/MS)  
by Method T015

## Quality Control Results

Client: Argonne National Laboratory

Job Number: 200-1136-1  
Sdg Number: MORRILL (200-1136)

### QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>Air - GC/MS VOA</b>					
<b>Analysis Batch:200-5449</b>					
LCS 200-5449/3	Lab Control Sample	T	Air	TO-15	
MB 200-5449/4	Method Blank	T	Air	TO-15	
200-1136-1	104 ROXANNA ST 1ST	T	Air	TO-15	
200-1136-2	104 ROXANNA ST BASEMENT	T	Air	TO-15	
200-1136-3	102 VIRGINIA ST 1ST	T	Air	TO-15	
200-1136-4	102 VIRGINIA ST BASEMENT	T	Air	TO-15	
200-1136-5	202 ROXANNA ST 1ST	T	Air	TO-15	
200-1136-6	202 ROXANNA ST BASEMENT	T	Air	TO-15	
200-1136-7	203 ROXANNA ST 1ST	T	Air	TO-15	
200-1136-8	107 ROXANNA ST MAIN ROOM	T	Air	TO-15	
200-1136-9	96 VIRGINIA ST OFFICE	T	Air	TO-15	
200-1136-10	AMBIENT AIR MW1	T	Air	TO-15	
200-1136-11	107 ROXANNA ST OFFICE	T	Air	TO-15	
200-1136-12	107 ROXANNA ST KID ROOM	T	Air	TO-15	
200-1136-13	108 ROXANNA ST 1ST	T	Air	TO-15	
200-1136-14	108 ROXANNA ST BASEMENT	T	Air	TO-15	
200-1136-15	106 VIRGINIA ST 1ST	T	Air	TO-15	
200-1136-16	105 ROXANNA ST 1ST	T	Air	TO-15	

**Report Basis**

T = Total

FORM III  
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Matrix: Air Level: Low Lab File ID: geuj003.d  
 Lab ID: LCS 200-5449/3 Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Chloroform	10.0	10.9	109	70-130	
Carbon tetrachloride	10.0	10.4	104	70-130	

# Column to be used to flag recovery and RPD values

FORM III TO-15

FORM IV  
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Lab File ID: geuj004.d Lab Sample ID: MB 200-5449/4  
 Matrix: Air Heated Purge: (Y/N) N  
 Instrument ID: G.i Date Analyzed: 08/21/2010 17:21  
 GC Column: RTX-624 ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 200-5449/3	geuj003.d	08/21/2010 16:33
104 ROXANNA ST 1ST	200-1136-1	geuj005.d	08/21/2010 18:10
104 ROXANNA ST BASEMENT	200-1136-2	geuj006.d	08/21/2010 18:58
102 VIRGINIA ST 1ST	200-1136-3	geuj007.d	08/21/2010 19:46
102 VIRGINIA ST BASEMENT	200-1136-4	geuj008.d	08/21/2010 20:35
202 ROXANNA ST 1ST	200-1136-5	geuj009.d	08/21/2010 21:23
202 ROXANNA ST BASEMENT	200-1136-6	geuj010.d	08/21/2010 22:12
203 ROXANNA ST 1ST	200-1136-7	geuj011.d	08/21/2010 23:00
107 ROXANNA ST MAIN ROOM	200-1136-8	geuj012.d	08/21/2010 23:48
96 VIRGINIA ST OFFICE	200-1136-9	geuj013.d	08/22/2010 00:37
AMBIENT AIR MW1	200-1136-10	geuj014.d	08/22/2010 01:25
107 ROXANNA ST OFFICE	200-1136-11	geuj015.d	08/22/2010 02:13
107 ROXANNA ST KID ROOM	200-1136-12	geuj016.d	08/22/2010 03:01
108 ROXANNA ST 1ST	200-1136-13	geuj017.d	08/22/2010 03:50
108 ROXANNA ST BASEMENT	200-1136-14	geuj018.d	08/22/2010 04:38
106 VIRGINIA ST 1ST	200-1136-15	geuj019.d	08/22/2010 05:26
105 ROXANNA ST 1ST	200-1136-16	geuj020.d	08/22/2010 06:14

FORM V  
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Lab File ID: geu001.d BFB Injection Date: 08/09/2010  
 Instrument ID: G.i BFB Injection Time: 14:23  
 Analysis Batch No.: 5008

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	8.0 - 40.0% of mass 95	11.9	
75	30.0 - 66.0% of mass 95	37.8	
95	Base peak, 100% relative abundance	100.0	
96	5.0 - 9.0% of mass 95	6.7	
173	Less than 2.0% of mass 174	0.5	(0.4)1
174	50.0 - 120.0% of mass 95	113.7	
175	4.0 - 9.0 % of mass 174	7.9	(6.9)1
176	93.0 - 101.0% of mass 174	110.7	(97.4)1
177	5.0 - 9.0% of mass 176	7.2	(6.5)2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 200-5008/3	geu003.d	08/09/2010	15:59
	IC 200-5008/4	geu004.d	08/09/2010	16:47
	IC 200-5008/5	geu005.d	08/09/2010	17:35
	ICIS 200-5008/6	geu006.d	08/09/2010	18:24
	IC 200-5008/7	geu007.d	08/09/2010	19:12
	IC 200-5008/8	geu008.d	08/09/2010	20:01
	IC 200-5008/9	geu009.d	08/09/2010	20:50
	ICV 200-5008/11	geu011.d	08/09/2010	22:27

FORM V  
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Lab File ID: geuj001.d BFB Injection Date: 08/21/2010  
 Instrument ID: G.i BFB Injection Time: 14:59  
 Analysis Batch No.: 5449

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	15.3
75	30.0 - 66.0% of mass 95	44.3
95	Base peak, 100% relative abundance	100.0
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 - 120.0% of mass 95	96.8
175	4.0 - 9.0 % of mass 174	6.6 (6.8)1
176	93.0 - 101.0% of mass 174	93.5 (96.6)1
177	5.0 - 9.0% of mass 176	6.1 (6.5)2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 200-5449/2	geuj002.d	08/21/2010	15:45
	LCS 200-5449/3	geuj003.d	08/21/2010	16:33
	MB 200-5449/4	geuj004.d	08/21/2010	17:21
104 ROXANNA ST 1ST	200-1136-1	geuj005.d	08/21/2010	18:10
104 ROXANNA ST BASEMENT	200-1136-2	geuj006.d	08/21/2010	18:58
102 VIRGINIA ST 1ST	200-1136-3	geuj007.d	08/21/2010	19:46
102 VIRGINIA ST BASEMENT	200-1136-4	geuj008.d	08/21/2010	20:35
202 ROXANNA ST 1ST	200-1136-5	geuj009.d	08/21/2010	21:23
202 ROXANNA ST BASEMENT	200-1136-6	geuj010.d	08/21/2010	22:12
203 ROXANNA ST 1ST	200-1136-7	geuj011.d	08/21/2010	23:00
107 ROXANNA ST MAIN ROOM	200-1136-8	geuj012.d	08/21/2010	23:48
96 VIRGINIA ST OFFICE	200-1136-9	geuj013.d	08/22/2010	00:37
AMBIENT AIR MW1	200-1136-10	geuj014.d	08/22/2010	01:25
107 ROXANNA ST OFFICE	200-1136-11	geuj015.d	08/22/2010	02:13
107 ROXANNA ST KID ROOM	200-1136-12	geuj016.d	08/22/2010	03:01
108 ROXANNA ST 1ST	200-1136-13	geuj017.d	08/22/2010	03:50
108 ROXANNA ST BASEMENT	200-1136-14	geuj018.d	08/22/2010	04:38
106 VIRGINIA ST 1ST	200-1136-15	geuj019.d	08/22/2010	05:26
105 ROXANNA ST 1ST	200-1136-16	geuj020.d	08/22/2010	06:14



FORM VIII  
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Sample No.: ICIS 200-5008/6 Date Analyzed: 08/09/2010 18:24  
 Instrument ID: G.i GC Column: RTX-624 ID: 0.32 (mm)  
 Lab File ID (Standard): geu006.d Heated Purge: (Y/N) N  
 Calibration ID: 1811

	BCM		DFB		CBZ	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT	673355	9.63	2867203	11.03	2840954	15.14
UPPER LIMIT	942697	9.96	4014084	11.36	3977336	15.47
LOWER LIMIT	404013	9.30	1720322	10.70	1704572	14.81
LAB SAMPLE ID	CLIENT SAMPLE ID					
ICV 200-5008/11	811655	9.63	3631468	11.03	3560459	15.14

BCM = Bromochloromethane  
 DFB = 1,4-Difluorobenzene  
 CBZ = Chlorobenzene-d5

Area Limit = 60%-140% of internal standard area  
 RT Limit = ± 0.33 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII  
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Sample No.: CCVIS 200-5449/2 Date Analyzed: 08/21/2010 15:45  
 Instrument ID: G.i GC Column: RTX-624 ID: 0.32 (mm)  
 Lab File ID (Standard): geuj002.d Heated Purge: (Y/N) N  
 Calibration ID: 1811

	BCM		DFB		CBZ	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD	571195	9.62	2493385	11.02	2371970	15.13
UPPER LIMIT	799673	9.95	3490739	11.35	3320758	15.46
LOWER LIMIT	342717	9.29	1496031	10.69	1423182	14.80
LAB SAMPLE ID	CLIENT SAMPLE ID					
LCS 200-5449/3	559401	9.61	2467576	11.02	2332418	15.13
MB 200-5449/4	524031	9.61	2511942	11.02	2212003	15.13
200-1136-1	104 ROXANNA ST 1ST	541203	2496092	11.02	2428782	15.13
200-1136-2	104 ROXANNA ST BASEMENT	532550	2416521	11.02	2356092	15.13
200-1136-3	102 VIRGINIA ST 1ST	525679	2341245	11.02	2231322	15.13
200-1136-4	102 VIRGINIA ST BASEMENT	468049	2145283	11.02	2211224	15.13
200-1136-5	202 ROXANNA ST 1ST	533572	2390295	11.02	2278712	15.13
200-1136-6	202 ROXANNA ST BASEMENT	550150	2487241	11.01	2399639	15.13
200-1136-7	203 ROXANNA ST 1ST	558860	2546250	11.02	2481636	15.13
200-1136-8	107 ROXANNA ST MAIN ROOM	564360	2571229	11.02	2432231	15.13
200-1136-9	96 VIRGINIA ST OFFICE	567628	2561540	11.02	2429193	15.13
200-1136-10	AMBIENT AIR MW1	575076	2571621	11.01	2425567	15.13
200-1136-11	107 ROXANNA ST OFFICE	552936	2486175	11.02	2352362	15.13
200-1136-12	107 ROXANNA ST KID ROOM	567854	2582739	11.02	2484862	15.13
200-1136-13	108 ROXANNA ST 1ST	561404	2549623	11.02	2427342	15.13
200-1136-14	108 ROXANNA ST BASEMENT	529128	2404173	11.02	2346753	15.13
200-1136-15	106 VIRGINIA ST 1ST	525836	2342279	11.02	2118589	15.13
200-1136-16	105 ROXANNA ST 1ST	539663	2455286	11.02	2390358	15.13

BCM = Bromochloromethane  
 DFB = 1,4-Difluorobenzene  
 CBZ = Chlorobenzene-d5

Area Limit = 60%-140% of internal standard area  
 RT Limit = ± 0.33 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM I  
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Client Sample ID: 104 ROXANNA ST 1ST Lab Sample ID: 200-1136-1  
 Matrix: Air Lab File ID: geuj005.d  
 Analysis Method: TO-15 Date Collected: 08/12/2010 15:07  
 Sample wt/vol: 200 (mL) Date Analyzed: 08/21/2010 18:10  
 Soil Aliquot Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: RTX-624 ID: 0.32 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 5449 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
67-66-3	Chloroform	119.38	0.22		0.20	0.050
56-23-5	Carbon tetrachloride	153.81	0.20	U	0.20	0.050

FORM I  
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Client Sample ID: 104 ROXANNA ST 1ST Lab Sample ID: 200-1136-1  
 Matrix: Air Lab File ID: geuj005.d  
 Analysis Method: TO-15 Date Collected: 08/12/2010 15:07  
 Sample wt/vol: 200 (mL) Date Analyzed: 08/21/2010 18:10  
 Soil Aliquot Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: RTX-624 ID: 0.32 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 5449 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
67-66-3	Chloroform	119.38	1.1		0.98	0.24
56-23-5	Carbon tetrachloride	153.81	1.3	U	1.3	0.31

FORM I  
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Client Sample ID: 104 ROXANNA ST BASEMENT Lab Sample ID: 200-1136-2  
 Matrix: Air Lab File ID: geuj006.d  
 Analysis Method: TO-15 Date Collected: 08/12/2010 15:11  
 Sample wt/vol: 200 (mL) Date Analyzed: 08/21/2010 18:58  
 Soil Aliquot Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: RTX-624 ID: 0.32 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 5449 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
67-66-3	Chloroform	119.38	0.26		0.20	0.050
56-23-5	Carbon tetrachloride	153.81	0.20	U	0.20	0.050

FORM I  
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Client Sample ID: 104 ROXANNA ST BASEMENT Lab Sample ID: 200-1136-2  
 Matrix: Air Lab File ID: geuj006.d  
 Analysis Method: TO-15 Date Collected: 08/12/2010 15:11  
 Sample wt/vol: 200 (mL) Date Analyzed: 08/21/2010 18:58  
 Soil Aliquot Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: RTX-624 ID: 0.32 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 5449 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
67-66-3	Chloroform	119.38	1.3		0.98	0.24
56-23-5	Carbon tetrachloride	153.81	1.3	U	1.3	0.31

FORM I  
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Client Sample ID: 102 VIRGINIA ST 1ST Lab Sample ID: 200-1136-3  
 Matrix: Air Lab File ID: geuj007.d  
 Analysis Method: TO-15 Date Collected: 08/12/2010 15:29  
 Sample wt/vol: 200 (mL) Date Analyzed: 08/21/2010 19:46  
 Soil Aliquot Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: RTX-624 ID: 0.32 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 5449 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
67-66-3	Chloroform	119.38	0.79		0.20	0.050
56-23-5	Carbon tetrachloride	153.81	0.20	U	0.20	0.050

FORM I  
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Client Sample ID: 102 VIRGINIA ST 1ST Lab Sample ID: 200-1136-3  
 Matrix: Air Lab File ID: geuj007.d  
 Analysis Method: TO-15 Date Collected: 08/12/2010 15:29  
 Sample wt/vol: 200 (mL) Date Analyzed: 08/21/2010 19:46  
 Soil Aliquot Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: RTX-624 ID: 0.32 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 5449 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
67-66-3	Chloroform	119.38	3.8		0.98	0.24
56-23-5	Carbon tetrachloride	153.81	1.3	U	1.3	0.31



FORM I  
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Client Sample ID: 102 VIRGINIA ST BASEMENT Lab Sample ID: 200-1136-4  
 Matrix: Air Lab File ID: geuj008.d  
 Analysis Method: TO-15 Date Collected: 08/12/2010 15:33  
 Sample wt/vol: 200 (mL) Date Analyzed: 08/21/2010 20:35  
 Soil Aliquot Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: RTX-624 ID: 0.32 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 5449 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
67-66-3	Chloroform	119.38	0.85		0.20	0.050
56-23-5	Carbon tetrachloride	153.81	0.20	U	0.20	0.050

FORM I  
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Client Sample ID: 102 VIRGINIA ST BASEMENT Lab Sample ID: 200-1136-4  
 Matrix: Air Lab File ID: geuj008.d  
 Analysis Method: TO-15 Date Collected: 08/12/2010 15:33  
 Sample wt/vol: 200(mL) Date Analyzed: 08/21/2010 20:35  
 Soil Aliquot Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: RTX-624 ID: 0.32 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 5449 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
67-66-3	Chloroform	119.38	4.1		0.98	0.24
56-23-5	Carbon tetrachloride	153.81	1.3	U	1.3	0.31

FORM I  
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Client Sample ID: 202 ROXANNA ST 1ST Lab Sample ID: 200-1136-5  
 Matrix: Air Lab File ID: geuj009.d  
 Analysis Method: TO-15 Date Collected: 08/12/2010 13:04  
 Sample wt/vol: 200(mL) Date Analyzed: 08/21/2010 21:23  
 Soil Aliquot Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: RTX-624 ID: 0.32 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 5449 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
67-66-3	Chloroform	119.38	0.72		0.20	0.050
56-23-5	Carbon tetrachloride	153.81	0.20	U	0.20	0.050

FORM I  
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Client Sample ID: 202 ROXANNA ST 1ST Lab Sample ID: 200-1136-5  
 Matrix: Air Lab File ID: geuj009.d  
 Analysis Method: TO-15 Date Collected: 08/12/2010 13:04  
 Sample wt/vol: 200 (mL) Date Analyzed: 08/21/2010 21:23  
 Soil Aliquot Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: RTX-624 ID: 0.32 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 5449 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
67-66-3	Chloroform	119.38	3.5		0.98	0.24
56-23-5	Carbon tetrachloride	153.81	1.3	U	1.3	0.31

FORM I  
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Client Sample ID: 202 ROXANNA ST BASEMENT Lab Sample ID: 200-1136-6  
 Matrix: Air Lab File ID: geuj010.d  
 Analysis Method: TO-15 Date Collected: 08/12/2010 13:06  
 Sample wt/vol: 200 (mL) Date Analyzed: 08/21/2010 22:12  
 Soil Aliquot Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: RTX-624 ID: 0.32 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 5449 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
67-66-3	Chloroform	119.38	0.20	U	0.20	0.050
56-23-5	Carbon tetrachloride	153.81	0.20	U	0.20	0.050

FORM I  
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Client Sample ID: 202 ROXANNA ST BASEMENT Lab Sample ID: 200-1136-6  
 Matrix: Air Lab File ID: geuj010.d  
 Analysis Method: TO-15 Date Collected: 08/12/2010 13:06  
 Sample wt/vol: 200 (mL) Date Analyzed: 08/21/2010 22:12  
 Soil Aliquot Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: RTX-624 ID: 0.32 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 5449 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
67-66-3	Chloroform	119.38	0.98	U	0.98	0.24
56-23-5	Carbon tetrachloride	153.81	1.3	U	1.3	0.31

FORM I  
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Client Sample ID: 203 ROXANNA ST 1ST Lab Sample ID: 200-1136-7  
 Matrix: Air Lab File ID: geuj011.d  
 Analysis Method: TO-15 Date Collected: 08/12/2010 13:17  
 Sample wt/vol: 200 (mL) Date Analyzed: 08/21/2010 23:00  
 Soil Aliquot Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: RTX-624 ID: 0.32 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 5449 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
67-66-3	Chloroform	119.38	1.8		0.20	0.050
56-23-5	Carbon tetrachloride	153.81	0.20	U	0.20	0.050

FORM I  
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Client Sample ID: 203 ROXANNA ST 1ST Lab Sample ID: 200-1136-7  
 Matrix: Air Lab File ID: geuj011.d  
 Analysis Method: TO-15 Date Collected: 08/12/2010 13:17  
 Sample wt/vol: 200 (mL) Date Analyzed: 08/21/2010 23:00  
 Soil Aliquot Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: RTX-624 ID: 0.32 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 5449 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
67-66-3	Chloroform	119.38	8.7		0.98	0.24
56-23-5	Carbon tetrachloride	153.81	1.3	U	1.3	0.31



FORM I  
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Client Sample ID: 107 ROXANNA ST MAIN ROOM Lab Sample ID: 200-1136-8  
 Matrix: Air Lab File ID: geuj012.d  
 Analysis Method: TO-15 Date Collected: 08/12/2010 17:16  
 Sample wt/vol: 200 (mL) Date Analyzed: 08/21/2010 23:48  
 Soil Aliquot Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: RTX-624 ID: 0.32 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 5449 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
67-66-3	Chloroform	119.38	0.20	U	0.20	0.050
56-23-5	Carbon tetrachloride	153.81	0.20	U	0.20	0.050

FORM I  
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Client Sample ID: 107 ROXANNA ST MAIN ROOM Lab Sample ID: 200-1136-8  
 Matrix: Air Lab File ID: geuj012.d  
 Analysis Method: TO-15 Date Collected: 08/12/2010 17:16  
 Sample wt/vol: 200 (mL) Date Analyzed: 08/21/2010 23:48  
 Soil Aliquot Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: RTX-624 ID: 0.32 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 5449 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
67-66-3	Chloroform	119.38	0.98	U	0.98	0.24
56-23-5	Carbon tetrachloride	153.81	1.3	U	1.3	0.31

FORM I  
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Client Sample ID: 96 VIRGINIA ST OFFICE Lab Sample ID: 200-1136-9  
 Matrix: Air Lab File ID: geuj013.d  
 Analysis Method: TO-15 Date Collected: 08/12/2010 14:34  
 Sample wt/vol: 200 (mL) Date Analyzed: 08/22/2010 00:37  
 Soil Aliquot Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: RTX-624 ID: 0.32 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 5449 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
67-66-3	Chloroform	119.38	5.4		0.20	0.050
56-23-5	Carbon tetrachloride	153.81	0.20	U	0.20	0.050

FORM I  
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Client Sample ID: 96 VIRGINIA ST OFFICE Lab Sample ID: 200-1136-9  
 Matrix: Air Lab File ID: geuj013.d  
 Analysis Method: TO-15 Date Collected: 08/12/2010 14:34  
 Sample wt/vol: 200 (mL) Date Analyzed: 08/22/2010 00:37  
 Soil Aliquot Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: RTX-624 ID: 0.32 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 5449 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
67-66-3	Chloroform	119.38	26		0.98	0.24
56-23-5	Carbon tetrachloride	153.81	1.3	U	1.3	0.31

FORM I  
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Client Sample ID: AMBIENT AIR.MW1 Lab Sample ID: 200-1136-10  
 Matrix: Air Lab File ID: geuj014.d  
 Analysis Method: TO-15 Date Collected: 08/12/2010 14:47  
 Sample wt/vol: 200(mL) Date Analyzed: 08/22/2010 01:25  
 Soil Aliquot Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: RTX-624 ID: 0.32(mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 5449 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
67-66-3	Chloroform	119.38	0.20	U	0.20	0.050
56-23-5	Carbon tetrachloride	153.81	0.20	U	0.20	0.050

FORM I  
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Client Sample ID: AMBIENT AIR MW1 Lab Sample ID: 200-1136-10  
 Matrix: Air Lab File ID: geuj014.d  
 Analysis Method: TO-15 Date Collected: 08/12/2010 14:47  
 Sample wt/vol: 200 (mL) Date Analyzed: 08/22/2010 01:25  
 Soil Aliquot Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: RTX-624 ID: 0.32 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 5449 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
67-66-3	Chloroform	119.38	0.98	U	0.98	0.24
56-23-5	Carbon tetrachloride	153.81	1.3	U	1.3	0.31

FORM I  
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Client Sample ID: 107 ROXANNA ST OFFICE Lab Sample ID: 200-1136-11  
 Matrix: Air Lab File ID: geuj015.d  
 Analysis Method: TO-15 Date Collected: 08/12/2010 17:11  
 Sample wt/vol: 200 (mL) Date Analyzed: 08/22/2010 02:13  
 Soil Aliquot Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: RTX-624 ID: 0.32 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 5449 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
67-66-3	Chloroform	119.38	0.20	U	0.20	0.050
56-23-5	Carbon tetrachloride	153.81	0.20	U	0.20	0.050

FORM I  
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Client Sample ID: 107 ROXANNA ST OFFICE Lab Sample ID: 200-1136-11  
 Matrix: Air Lab File ID: geuj015.d  
 Analysis Method: TO-15 Date Collected: 08/12/2010 17:11  
 Sample wt/vol: 200 (mL) Date Analyzed: 08/22/2010 02:13  
 Soil Aliquot Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: RTX-624 ID: 0.32 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 5449 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
67-66-3	Chloroform	119.38	0.98	U	0.98	0.24
56-23-5	Carbon tetrachloride	153.81	1.3	U	1.3	0.31



FORM I  
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Client Sample ID: 107 ROXANNA ST KID ROOM Lab Sample ID: 200-1136-12  
 Matrix: Air Lab File ID: geuj016.d  
 Analysis Method: TO-15 Date Collected: 08/12/2010 17:14  
 Sample wt/vol: 200 (mL) Date Analyzed: 08/22/2010 03:01  
 Soil Aliquot Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: RTX-624 ID: 0.32 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 5449 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
67-66-3	Chloroform	119.38	0.20	U	0.20	0.050
56-23-5	Carbon tetrachloride	153.81	0.20	U	0.20	0.050

FORM I  
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Client Sample ID: 107 ROXANNA ST KID ROOM Lab Sample ID: 200-1136-12  
 Matrix: Air Lab File ID: geuj016.d  
 Analysis Method: TO-15 Date Collected: 08/12/2010 17:14  
 Sample wt/vol: 200 (mL) Date Analyzed: 08/22/2010 03:01  
 Soil Aliquot Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: RTX-624 ID: 0.32 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 5449 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
67-66-3	Chloroform	119.38	0.98	U	0.98	0.24
56-23-5	Carbon tetrachloride	153.81	1.3	U	1.3	0.31

FORM I  
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Client Sample ID: 108 ROXANNA ST 1ST Lab Sample ID: 200-1136-13  
 Matrix: Air Lab File ID: geuj017.d  
 Analysis Method: TO-15 Date Collected: 08/12/2010 15:39  
 Sample wt/vol: 200(mL) Date Analyzed: 08/22/2010 03:50  
 Soil Aliquot Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: RTX-624 ID: 0.32(mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 5449 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
67-66-3	Chloroform	119.38	0.75		0.20	0.050
56-23-5	Carbon tetrachloride	153.81	0.20	U	0.20	0.050

FORM I  
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Client Sample ID: 108 ROXANNA ST 1ST Lab Sample ID: 200-1136-13  
 Matrix: Air Lab File ID: geuj017.d  
 Analysis Method: TO-15 Date Collected: 08/12/2010 15:39  
 Sample wt/vol: 200 (mL) Date Analyzed: 08/22/2010 03:50  
 Soil Aliquot Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: RTX-624 ID: 0.32 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 5449 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
67-66-3	Chloroform	119.38	3.6		0.98	0.24
56-23-5	Carbon tetrachloride	153.81	1.3	U	1.3	0.31

FORM I  
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Client Sample ID: 108 ROXANNA ST BASEMENT Lab Sample ID: 200-1136-14  
 Matrix: Air Lab File ID: geuj018.d  
 Analysis Method: TO-15 Date Collected: 08/12/2010 15:43  
 Sample wt/vol: 200 (mL) Date Analyzed: 08/22/2010 04:38  
 Soil Aliquot Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: RTX-624 ID: 0.32 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 5449 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
67-66-3	Chloroform	119.38	0.94		0.20	0.050
56-23-5	Carbon tetrachloride	153.81	0.20	U	0.20	0.050

FORM I  
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Client Sample ID: 108 ROXANNA ST BASEMENT Lab Sample ID: 200-1136-14  
 Matrix: Air Lab File ID: geuj018.d  
 Analysis Method: TO-15 Date Collected: 08/12/2010 15:43  
 Sample wt/vol: 200 (mL) Date Analyzed: 08/22/2010 04:38  
 Soil Aliquot Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: RTX-624 ID: 0.32 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 5449 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
67-66-3	Chloroform	119.38	4.6		0.98	0.24
56-23-5	Carbon tetrachloride	153.81	1.3	U	1.3	0.31

FORM I  
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Client Sample ID: 106 VIRGINIA ST 1ST Lab Sample ID: 200-1136-15  
 Matrix: Air Lab File ID: geuj019.d  
 Analysis Method: TO-15 Date Collected: 08/12/2010 14:51  
 Sample wt/vol: 200(mL) Date Analyzed: 08/22/2010 05:26  
 Soil Aliquot Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: RTX-624 ID: 0.32(mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 5449 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
67-66-3	Chloroform	119.38	0.45		0.20	0.050
56-23-5	Carbon tetrachloride	153.81	0.20	U	0.20	0.050

FORM I  
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Client Sample ID: 106 VIRGINIA ST 1ST Lab Sample ID: 200-1136-15  
 Matrix: Air Lab File ID: geuj019.d  
 Analysis Method: TO-15 Date Collected: 08/12/2010 14:51  
 Sample wt/vol: 200 (mL) Date Analyzed: 08/22/2010 05:26  
 Soil Aliquot Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: RTX-624 ID: 0.32 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 5449 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
67-66-3	Chloroform	119.38	2.2		0.98	0.24
56-23-5	Carbon tetrachloride	153.81	1.3	U	1.3	0.31



FORM I  
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Client Sample ID: 105 ROXANNA ST 1ST Lab Sample ID: 200-1136-16  
 Matrix: Air Lab File ID: geuj020.d  
 Analysis Method: TO-15 Date Collected: 08/12/2010 17:03  
 Sample wt/vol: 200 (mL) Date Analyzed: 08/22/2010 06:14  
 Soil Aliquot Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: RTX-624 ID: 0.32 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 5449 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
67-66-3	Chloroform	119.38	0.21		0.20	0.050
56-23-5	Carbon tetrachloride	153.81	0.20	U	0.20	0.050

FORM I  
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Client Sample ID: 105 ROXANNA ST 1ST Lab Sample ID: 200-1136-16  
 Matrix: Air Lab File ID: geuj020.d  
 Analysis Method: TO-15 Date Collected: 08/12/2010 17:03  
 Sample wt/vol: 200(mL) Date Analyzed: 08/22/2010 06:14  
 Soil Aliquot Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: RTX-624 ID: 0.32(mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 5449 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
67-66-3	Chloroform	119.38	1.0		0.98	0.24
56-23-5	Carbon tetrachloride	153.81	1.3	U	1.3	0.31

FORM VI  
AIR - GC/MS VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica Burlington

Job No.: 200-1136-1

Analy Batch No.: 5008

SDG No.: MORRILL (200-1136)

Instrument ID: G.i

GC Column: RTX-624

ID: 0.32 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 08/09/2010 15:59

Calibration End Date: 08/09/2010 20:50

Calibration ID: 1811

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-5008/3	geu003.d
Level 2	IC 200-5008/4	geu004.d
Level 3	IC 200-5008/5	geu005.d
Level 4	ICIS 200-5008/6	geu006.d
Level 5	IC 200-5008/7	geu007.d
Level 6	IC 200-5008/8	geu008.d
Level 7	IC 200-5008/9	geu009.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
Propylene	0.1896	0.2084 0.1699	0.2009	0.1808	0.2114	Ave	0.1935				8.4		30.0				
Dichlorodifluoromethane	1.4309	1.6088 1.2685	1.5317	1.4043	1.6362	Ave	1.4801				9.4		30.0				
Freon 22	0.5532	0.6524 0.4945	0.5976	0.5460	0.6199	Ave	0.5773				9.9		30.0				
1,2-Dichlorotetrafluoroethane	1.5707 1.3548	1.5976 1.1628	1.4963	1.3427	1.5204	Ave	1.4350				10.8		30.0				
Chloromethane	0.3120	0.3622 0.2793	0.3308	0.3025	0.3425	Ave	0.3216				9.2		30.0				
n-Butane	0.4827	0.5525 0.4274	0.5164	0.4527	0.5310	Ave	0.4938				9.7		30.0				
Vinyl chloride	0.5174 0.4703	0.5049 0.4139	0.5032	0.4371	0.5127	Ave	0.4799				8.5		30.0				
1,3-Butadiene	0.3742 0.3226	0.3489 0.2872	0.3469	0.3072	0.3535	Ave	0.3343				9.0		30.0				
Bromomethane	1.0191 0.8877	0.9361 0.8786	0.8862	0.8087	1.0248	Ave	0.9202				8.6		30.0				
Chloroethane	0.3630	0.3724 0.3276	0.2930	0.3185	0.3782	Ave	0.3421				10.0		30.0				
Isopentane	0.6148 0.6409	0.6985 0.5790	0.5659	0.5655	0.7117	Ave	0.6252				9.8		30.0				
Bromoethene (Vinyl Bromide)	1.0110 1.0533	0.9752 0.9502	0.9587	0.8774	1.1100	Ave	0.9908				7.6		30.0				
Trichlorofluoromethane	2.5952 2.4647	2.7470 2.3632	2.3248	2.1885	2.6796	Ave	2.4804				8.2		30.0				
n-Pentane	1.0405	1.2492 0.9587	1.0480	1.0573	1.1451	Ave	1.0831				9.3		30.0				

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
AIR - GC/MS VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica Burlington

Job No.: 200-1136-1

Analy Batch No.: 5008

SDG No.: MORRILL (200-1136)

Instrument ID: G.i

GC Column: RTX-624

ID: 0.32 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 08/09/2010 15:59

Calibration End Date: 08/09/2010 20:50

Calibration ID: 1811

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Ethanol	0.2345	0.2621 0.2199	0.2223	0.2457	0.2411	Ave		0.2376			6.6		30.0				
Ethyl ether	0.4512 0.4483	0.4955 0.4196	0.4102	0.4788	0.4496	Ave		0.4504			6.7		30.0				
Acrolein	0.2323	0.2090	0.2238	0.2530	0.2415	Ave		0.2319			7.2		30.0				
Freon TF	1.8687 1.7604	2.0129 1.7220	1.7375	1.8370	1.9303	Ave		1.8384			5.9		30.0				
1,1-Dichloroethene	1.0041 0.8272	0.9229 0.8153	0.8000	0.8457	0.8922	Ave		0.8725			8.3		30.0				
Acetone	0.8084	0.7717	0.8062	0.9731	0.8211	Ave		0.8361			9.4		30.0				
Isopropyl alcohol	0.6465	0.6073	0.6339	0.6868	0.6762	Ave		0.6501			4.9		30.0				
Carbon disulfide	2.5480	2.7102 2.4220	2.4731	2.6201	2.7146	Ave		2.5813			4.7		30.0				
3-Chloropropene	0.7866 0.7393	0.8114 0.6772	0.7392	0.7176	0.8045	Ave		0.7537			6.5		30.0				
Acetonitrile	0.4037	0.3852	0.3734	0.4035	0.4035	Ave		0.3939			3.5		30.0				
Methylene Chloride	0.7448	1.0339 0.6820	0.7610	0.7203	0.7902	Ave		0.7887			15.9		30.0				
tert-Butyl alcohol	1.0199	0.9648	0.9855	1.0274	1.0374	Ave		1.0070			3.0		30.0				
Methyl tert-butyl ether	2.0786 2.0084	1.9529 1.8276	1.7303	1.8981	1.8314	Ave		1.9039			6.3		30.0				
trans-1,2-Dichloroethene	1.2960 1.1237	1.2057 0.9981	1.1119	1.0439	1.1504	Ave		1.1328			8.7		30.0				
n-Hexane	1.2054 1.0285	1.1205 0.9538	1.0324	1.0195	1.0510	Ave		1.0587			7.7		30.0				
1,1-Dichloroethane	1.6562 1.3786	1.5139 1.2673	1.4057	1.3118	1.3907	Ave		1.4177			9.2		30.0				
Vinyl acetate	1.4253	1.2705	1.3287	1.3678	1.3227	Ave		1.3430			4.3		30.0				
cis-1,2-Dichloroethene	1.0727 0.9539	1.0245 0.8842	0.9651	0.9159	0.9501	Ave		0.9666			6.6		30.0				
Methyl Ethyl Ketone	0.3237	0.3634 0.2905	0.2983	0.3143	0.2955	Ave		0.3143			8.6		30.0				
Ethyl acetate	0.0563	0.0505	0.0487	0.0516	0.0496	Ave		0.0513			5.8		30.0				

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
AIR - GC/MS VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica Burlington Job No.: 200-1136-1 Analy Batch No.: 5008  
 SDG No.: MORRILL (200-1136)  
 Instrument ID: G.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N  
 Calibration Start Date: 08/09/2010 15:59 Calibration End Date: 08/09/2010 20:50 Calibration ID: 1811

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Tetrahydrofuran			0.1312	0.1295	0.1152	Ave		0.1259			6.0		30.0				
Chloroform	0.1328	0.1208															
	2.1180 1.7978	2.0245 1.7704	1.8632	1.8484	1.8502	Ave		1.8961			6.7		30.0				
Cyclohexane	0.2622	0.2727	0.2753	0.2364	0.2393	Ave		0.2509			7.6		30.0				
	0.2439	0.2266															
1,1,1-Trichloroethane	0.4808	0.5118	0.5036	0.4556	0.4592	Ave		0.4746			5.3		30.0				
	0.4652	0.4457															
Carbon tetrachloride	0.5304	0.5991	0.5630	0.5669	0.5303	Ave		0.5480			5.3		30.0				
	0.5274	0.5186															
2,2,4-Trimethylpentane	0.8331	0.8535	0.8267	0.7678	0.6871	Ave		0.7622			10.3		30.0				
	0.7124	0.6547															
Benzene	0.6241	0.6393	0.6108	0.5538	0.5276	Ave		0.5760			8.2		30.0				
	0.5493	0.5273															
1,2-Dichloroethane	0.2486	0.2648	0.2405	0.2385	0.2315	Ave		0.2402			5.6		30.0				
	0.2339	0.2235															
n-Heptane	0.3402	0.2870	0.2592	0.2353	0.2292	Ave		0.2546			18.1		30.0				
	0.2263	0.2047															
Trichloroethene	0.3378	0.3389	0.3300	0.2864	0.2790	Ave		0.3042			9.8		30.0				
	0.2863	0.2711															
1,2-Dichloropropane	0.2152	0.2330	0.1989	0.1837	0.1823	Ave		0.1947			11.5		30.0				
	0.1811	0.1690															
Methyl methacrylate		0.1731	0.1589	0.1604	0.1596	Ave		0.1627			3.4		30.0				
	0.1651	0.1591															
1,4-Dioxane			0.0773	0.0714	0.0760	Ave		0.0728			5.2		30.0				
	0.0712	0.0681															
Dibromomethane	0.3817	0.3800	0.3497	0.3096	0.3522	Ave		0.3463			8.0		30.0				
	0.3256	0.3253															
Bromodichloromethane	0.4952	0.5244	0.4893	0.4879	0.4665	Ave		0.4788			6.2		30.0				
	0.4543	0.4341															
cis-1,3-Dichloropropene	0.3048	0.3457	0.3052	0.3126	0.3103	Ave		0.3120			5.1		30.0				
	0.3092	0.2959															
Methyl isobutyl ketone		0.2545	0.2332	0.2474	0.2454	Ave		0.2430			3.5		30.0				
	0.2452	0.2323															
n-Octane	0.3628	0.3797	0.3375	0.3102	0.2864	Ave		0.3136			15.9		30.0				
	0.2817	0.2371															
Toluene	0.4331	0.4922	0.4535	0.4087	0.3585	Ave		0.4222			10.2		30.0				
	0.4143	0.3950															
trans-1,3-Dichloropropene	0.3252	0.3311	0.3103	0.3325	0.3273	Ave		0.3220			3.0		30.0				
	0.3190	0.3088															

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
AIR - GC/MS VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica Burlington Job No.: 200-1136-1 Analy Batch No.: 5008

SDG No.: MORRILL (200-1136)

Instrument ID: G.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/09/2010 15:59 Calibration End Date: 08/09/2010 20:50 Calibration ID: 1811

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
1,1,2-Trichloroethane	0.2367 0.2308	0.2372 0.2103	0.2431	0.2345	0.2132	Ave		0.2294			5.5		30.0				
Tetrachloroethene	0.4933 0.4842	0.5060 0.4704	0.5144	0.4521	0.4637	Ave		0.4834			4.7		30.0				
Methyl Butyl Ketone (2-Hexanone)		0.2564 0.2286	0.2620	0.2552	0.2362	Ave		0.2464			5.4		30.0				
Dibromochloromethane	0.5921 0.6035	0.5705 0.5753	0.6146	0.5827	0.5549	Ave		0.5848			3.5		30.0				
1,2-Dibromoethane	0.4985 0.4782	0.4788 0.4525	0.4994	0.4625	0.4147	Ave		0.4692			6.3		30.0				
Chlorobenzene	0.6333 0.6218	0.6638 0.5922	0.6469	0.6363	0.5833	Ave		0.6254			4.6		30.0				
Ethylbenzene	0.8389 0.8605	0.9235 0.7362	0.9136	0.8615	0.7537	Ave		0.8411			8.6		30.0				
n-Nonane	0.3672 0.3060	0.3685 0.2393	0.3629	0.3291	0.2793	Ave		0.3218			15.5		30.0				
m,p-Xylene	0.3503 0.3808	0.4189 0.3145	0.3838	0.3887	0.3206	Ave		0.3654			10.5		30.0				
Xylene, o-	0.3617 0.3943	0.4411 0.3402	0.3742	0.3620	0.3637	Ave		0.3768			8.7		30.0				
Styrene	0.4856 0.6156	0.6029 0.5343	0.5704	0.6176	0.5657	Ave		0.5703			8.4		30.0				
Bromoform	0.5285 0.7086	0.5718 0.6190	0.6209	0.6527	0.6213	Ave		0.6175			9.2		30.0				
Cumene	0.9642 1.0822	1.0738 0.9397	0.9993	1.0077	0.8958	Ave		0.9947			6.8		30.0				
1,1,2,2-Tetrachloroethane	0.5561 0.6050	0.6098 0.4946	0.5811	0.6221	0.5181	Ave		0.5696			8.5		30.0				
n-Propylbenzene	1.0384 1.2391	1.2656 0.9706	1.1588	1.1946	1.1144	Ave		1.1402			9.4		30.0				
1,2,3-Trichloropropane		0.4419 0.3145	0.3908	0.3892	0.3593	Ave		0.3824			11.1		30.0				
n-Decane		0.3955 0.3174	0.4136	0.4124	0.3770	Ave		0.3885			9.7		30.0				
4-Ethyltoluene	0.9495 1.1327	0.9876 0.9368	0.9817	1.0374	0.9842	Ave		1.0014			6.6		30.0				
2-Chlorotoluene	0.9721 0.9951	1.0274 0.8215	0.9217	0.9318	0.8730	Ave		0.9347			7.6		30.0				
1,3,5-Trimethylbenzene	0.7744 0.9322	0.8763 0.7796	0.8107	0.8966	0.8026	Ave		0.8389			7.4		30.0				

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
AIR - GC/MS VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica Burlington Job No.: 200-1136-1 Analy Batch No.: 5008  
 SDG No.: MORRILL (200-1136)  
 Instrument ID: G.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N  
 Calibration Start Date: 08/09/2010 15:59 Calibration End Date: 08/09/2010 20:50 Calibration ID: 1811

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
tert-Butylbenzene	0.8179 0.9432	0.8392 0.7772	0.7885	0.8347	0.7723	Ave		0.8247			7.1		30.0				
1,2,4-Trimethylbenzene	0.7356 0.9439	0.9209 0.7899	0.8199	0.8736	0.8202	Ave		0.8434			8.7		30.0				
sec-Butylbenzene	1.1585 1.3174	1.3021 1.1014	1.2909	1.2283	1.1638	Ave		1.2232			6.9		30.0				
4-Isopropyltoluene	0.8407 1.1534	0.9538 0.9699	1.0426	1.0392	1.0078	Ave		1.0011			9.6		30.0				
1,3-Dichlorobenzene	0.6680 0.7898	0.7240 0.6945	0.7082	0.6909	0.7488	Ave		0.7177			5.7		30.0				
1,4-Dichlorobenzene	0.6406 0.7961	0.6933 0.6935	0.6938	0.6817	0.7155	Ave		0.7021			6.7		30.0				
Benzyl chloride	0.5310 0.7781	0.6036 0.6961	0.6778	0.6097	0.6631	Ave		0.6513			12.1		30.0				
n-Undecane	0.4038	0.3169	0.3305	0.3436	0.3068	Ave		0.3403			11.2		30.0				
n-Butylbenzene	0.6454 0.9561	0.7391 0.7881	0.8627	0.9411	0.8302	Ave		0.8232			13.4		30.0				
1,2-Dichlorobenzene	0.5810 0.7958	0.6668 0.6647	0.6519	0.7180	0.7086	Ave		0.6838			9.7		30.0				
n-Dodecane	0.2422	0.1192	0.2276	0.1918	0.2432	Ave		0.2048			25.5		30.0				
1,2,4-Trichlorobenzene	0.6131	0.2983 0.4196	0.3151	0.4474	0.4752	Ave		0.4281			26.9		30.0				
Hexachlorobutadiene	0.3446 0.6473	0.4494 0.3708	0.4512	0.5220	0.5218	Ave		0.4724			21.7		30.0				
Naphthalene	1.0232	0.5077 0.7285	0.5878	0.6459	0.8411	Ave		0.7224			25.9		30.0				
1,2,3-Trichlorobenzene	0.3359 0.5049	0.2512 0.2628	0.2621	0.2955	0.3993	Ave		0.3303			28.2		30.0				

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
AIR - GC/MS VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington

Job No.: 200-1136-1

Analy Batch No.: 5008

SDG No.: MORRILL (200-1136)

Instrument ID: G.i

GC Column: RTX-624

ID: 0.32 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 08/09/2010 15:59

Calibration End Date: 08/09/2010 20:50

Calibration ID: 1811

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-5008/3	geu003.d
Level 2	IC 200-5008/4	geu004.d
Level 3	IC 200-5008/5	geu005.d
Level 4	ICIS 200-5008/6	geu006.d
Level 5	IC 200-5008/7	geu007.d
Level 6	IC 200-5008/8	geu008.d
Level 7	IC 200-5008/9	geu009.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7					LVL 7			
Propylene	BCM	Ave	288236	6758 515470	75946	121758	208877	20.0	0.500 40.0	5.00	10.0	15.0
Dichlorodifluoromethane	BCM	Ave	2174775	52179 3848252	579101	945562	1616800	20.0	0.500 40.0	5.00	10.0	15.0
Freon 22	BCM	Ave	840854	21159 1500293	225949	367677	612545	20.0	0.500 40.0	5.00	10.0	15.0
1,2-Dichlorotetrafluoroethane	BCM	Ave	20700 2059073	51816 3527711	565699	904097	1502370	0.200 20.0	0.500 40.0	5.00	10.0	15.0
Chloromethane	BCM	Ave	474232	11749 847404	125055	203672	338459	20.0	0.500 40.0	5.00	10.0	15.0
n-Butane	BCM	Ave	733646	17921 1296620	195228	304852	524673	20.0	0.500 40.0	5.00	10.0	15.0
Vinyl chloride	BCM	Ave	6818 714769	16376 1255744	190261	294357	506636	0.200 20.0	0.500 40.0	5.00	10.0	15.0
1,3-Butadiene	BCM	Ave	4932 490294	11315 871242	131153	206861	349262	0.200 20.0	0.500 40.0	5.00	10.0	15.0
Bromomethane	BCM	Ave	13430 1349245	30362 2665352	335056	544521	1012598	0.200 20.0	0.500 40.0	5.00	10.0	15.0
Chloroethane	BCM	Ave	551748	12080 993710	110779	214449	373673	20.0	0.500 40.0	5.00	10.0	15.0
Isopentane	BCM	Ave	8102 974091	22655 1756464	213965	380771	703229	0.200 20.0	0.500 40.0	5.00	10.0	15.0
Bromoethene (Vinyl Bromide)	BCM	Ave	13323 1600934	31630 2882821	362439	590835	1096803	0.200 20.0	0.500 40.0	5.00	10.0	15.0
Trichlorofluoromethane	BCM	Ave	34201 3746034	89095 7169411	878932	1473617	2647789	0.200 20.0	0.500 40.0	5.00	10.0	15.0
n-Pentane	BCM	Ave	1581367	40515 2908349	396216	711959	1131503	20.0	0.500 40.0	5.00	10.0	15.0
Ethanol	BCM	Ave	712936	84999 1668155	168125	248116	317635	40.0	5.00 100	10.0	15.0	20.0



FORM VI  
AIR - GC/MS VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-1136-1 Analy Batch No.: 5008

SDG No.: MORRILL (200-1136)

Instrument ID: G.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/09/2010 15:59 Calibration End Date: 08/09/2010 20:50 Calibration ID: 1811

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Ethyl ether	BCM	Ave	5946 681312	16072 1272837	155086	322384	444272	0.200 20.0	0.500 40.0	5.00	10.0	15.0
Acrolein	BCM	Ave	353059	634190	84612	170358	238665	20.0	40.0	5.00	10.0	15.0
Freon TF	BCM	Ave	24627 2675572	65286 5224132	656886	1236921	1907411	0.200 20.0	0.500 40.0	5.00	10.0	15.0
1,1-Dichloroethene	BCM	Ave	13232 1257220	29934 2473287	302440	569427	881594	0.200 20.0	0.500 40.0	5.00	10.0	15.0
Acetone	BCM	Ave	1228704	2341058	304809	655209	811374	20.0	40.0	5.00	10.0	15.0
Isopropyl alcohol	BCM	Ave	982556	1842509	239651	462461	668187	20.0	40.0	5.00	10.0	15.0
Carbon disulfide	BCM	Ave	3872631	87901 7347699	934978	1764224	2682408	20.0	0.500 40.0	5.00	10.0	15.0
3-Chloropropene	BCM	Ave	10366 1123585	26317 2054346	279453	483217	794998	0.200 20.0	0.500 40.0	5.00	10.0	15.0
Acetonitrile	BCM	Ave	613597	1168721	141165	271715	398754	20.0	40.0	5.00	10.0	15.0
Methylene Chloride	BCM	Ave	1131976	33535 2069016	287700	485002	780849	20.0	0.500 40.0	5.00	10.0	15.0
tert-Butyl alcohol	BCM	Ave	1550079	2927095	372598	691832	1025082	20.0	40.0	5.00	10.0	15.0
Methyl tert-butyl ether	BCM	Ave	27393 3052532	63341 5544522	654181	1278088	1809679	0.200 20.0	0.500 40.0	5.00	10.0	15.0
trans-1,2-Dichloroethene	BCM	Ave	17079 1707879	39104 3027905	420359	702894	1136767	0.200 20.0	0.500 40.0	5.00	10.0	15.0
n-Hexane	BCM	Ave	15885 1563223	36342 2893553	390309	686519	1038583	0.200 20.0	0.500 40.0	5.00	10.0	15.0
1,1-Dichloroethane	BCM	Ave	21826 2095369	49102 3844560	531430	883295	1374223	0.200 20.0	0.500 40.0	5.00	10.0	15.0
Vinyl acetate	BCM	Ave	2166345	3854464	502323	921003	1306973	20.0	40.0	5.00	10.0	15.0
cis-1,2-Dichloroethene	BCM	Ave	14137 1449873	33229 2682587	364864	616747	938786	0.200 20.0	0.500 40.0	5.00	10.0	15.0
Methyl Ethyl Ketone	BCM	Ave	491953	11786 881322	112766	211607	291995	20.0	0.500 40.0	5.00	10.0	15.0
Ethyl acetate	BCM	Ave	85493	153120	18413	34732	49008	20.0	40.0	5.00	10.0	15.0
Tetrahydrofuran	DFB	Ave	845473	1590340	197464	371403	509234	20.0	40.0	5.00	10.0	15.0
Chloroform	BCM	Ave	27912 2732436	65664 5370961	704432	1244628	1828210	0.200 20.0	0.500 40.0	5.00	10.0	15.0

FORM VI  
 AIR - GC/MS VOA INITIAL CALIBRATION DATA  
 INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington

Job No.: 200-1136-1

Analy Batch No.: 5008

SDG No.: MORRILL (200-1136)

Instrument ID: G.i

GC Column: RTX-624

ID: 0.32(mm)

Heated Purge: (Y/N) N

Calibration Start Date: 08/09/2010 15:59

Calibration End Date: 08/09/2010 20:50

Calibration ID: 1811

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PBB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Cyclohexane	DFB	Ave	15493 1553081	36900 2984081	414357	677931	1057979	0.200 20.0	0.500 40.0	5.00	10.0	15.0
1,1,1-Trichloroethane	DFB	Ave	28412 2962798	69249 5869275	757870	1306385	2030421	0.200 20.0	0.500 40.0	5.00	10.0	15.0
Carbon tetrachloride	DFB	Ave	31344 3358914	81052 6828674	847368	1625421	2344844	0.200 20.0	0.500 40.0	5.00	10.0	15.0
2,2,4-Trimethylpentane	DFB	Ave	49230 4537061	115482 8620007	1244257	2201579	3038011	0.200 20.0	0.500 40.0	5.00	10.0	15.0
Benzene	DFB	Ave	36881 3498673	86498 6943202	919191	1587792	2332614	0.200 20.0	0.500 40.0	5.00	10.0	15.0
1,2-Dichloroethane	DFB	Ave	14690 1489785	35831 2942707	361941	683875	1023418	0.200 20.0	0.500 40.0	5.00	10.0	15.0
n-Heptane	DFB	Ave	20100 1441312	38837 2695786	390034	674688	1013354	0.200 20.0	0.500 40.0	5.00	10.0	15.0
Trichloroethene	DFB	Ave	19962 1823598	45849 3569291	496704	821238	1233457	0.200 20.0	0.500 40.0	5.00	10.0	15.0
1,2-Dichloropropane	DFB	Ave	12719 1153338	31521 2225305	299355	526722	805840	0.200 20.0	0.500 40.0	5.00	10.0	15.0
Methyl methacrylate	DFB	Ave	1051364	23423 2094834	239201	459854	705572	20.0	0.500 40.0	5.00	10.0	15.0
1,4-Dioxane	DFB	Ave	453188	896519	116322	204725	336180	20.0	40.0	5.00	10.0	15.0
Dibromomethane	DFB	Ave	22557 2073633	51408 4283754	526320	887734	1557371	0.200 20.0	0.500 40.0	5.00	10.0	15.0
Bromodichloromethane	DFB	Ave	29260 2893397	70946 5715878	736405	1399004	2062637	0.200 20.0	0.500 40.0	5.00	10.0	15.0
cis-1,3-Dichloropropene	DFB	Ave	18011 1969386	46769 3896346	459350	896188	1372032	0.200 20.0	0.500 40.0	5.00	10.0	15.0
Methyl isobutyl ketone	DFB	Ave	1561713	34427 3058407	350983	709252	1084991	20.0	0.500 40.0	5.00	10.0	15.0
n-Octane	DFB	Ave	21440 1794064	51367 3122000	508010	889483	1266134	0.200 20.0	0.500 40.0	5.00	10.0	15.0
Toluene	CBZ	Ave	24762 2531555	66253 5017401	619174	1161021	1639275	0.200 20.0	0.500 40.0	5.00	10.0	15.0
trans-1,3-Dichloropropene	DFB	Ave	19218 2031538	44798 4065626	466998	953387	1447109	0.200 20.0	0.500 40.0	5.00	10.0	15.0
1,1,2-Trichloroethane	CBZ	Ave	13532 1410103	31933 2670884	331906	666215	975078	0.200 20.0	0.500 40.0	5.00	10.0	15.0
Tetrachloroethene	CBZ	Ave	28204 2958869	68114 5975217	702242	1284411	2120362	0.200 20.0	0.500 40.0	5.00	10.0	15.0
Methyl Butyl Ketone (2-Hexanone)	CBZ	Ave	1467381	34513 2904042	357662	724992	1079914	20.0	0.500 40.0	5.00	10.0	15.0

FORM VI  
 AIR - GC/MS VOA INITIAL CALIBRATION DATA  
 INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington

Job No.: 200-1136-1

Analy Batch No.: 5008

SDG No.: MORRILL (200-1136)

Instrument ID: G.i

GC Column: RTX-624

ID: 0.32 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 08/09/2010 15:59

Calibration End Date: 08/09/2010 20:50

Calibration ID: 1811

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dibromochloromethane	CBZ	Ave	33849 3687892	76792 7308048	839097	1655429	2537494	0.200 20.0	0.500 40.0	5.00	10.0	15.0
1,2-Dibromoethane	CBZ	Ave	28499 2922131	64454 5748101	681795	1313978	1896387	0.200 20.0	0.500 40.0	5.00	10.0	15.0
Chlorobenzene	CBZ	Ave	36208 3799764	89355 7522646	883145	1807807	2667052	0.200 20.0	0.500 40.0	5.00	10.0	15.0
Ethylbenzene	CBZ	Ave	47964 5258382	124308 9351695	1247264	2447468	3446635	0.200 20.0	0.500 40.0	5.00	10.0	15.0
n-Nonane	CBZ	Ave	20991 1869696	49608 3039801	495488	935033	1276996	0.200 20.0	0.500 40.0	5.00	10.0	15.0
m,p-Xylene	CBZ	Ave	40050 4653794	112790 7990425	1047813	2208657	2932192	0.400 40.0	1.00 80.0	10.0	20.0	30.0
Xylene, o-	CBZ	Ave	20681 2409776	59374 4322092	510788	1028469	1663074	0.200 20.0	0.500 40.0	5.00	10.0	15.0
Styrene	CBZ	Ave	27764 3761800	81153 6787125	778659	1754558	2586716	0.200 20.0	0.500 40.0	5.00	10.0	15.0
Bromoform	CBZ	Ave	30215 4330022	76966 7862466	847700	1854263	2840945	0.200 20.0	0.500 40.0	5.00	10.0	15.0
Cumene	CBZ	Ave	55123 6613116	144549 11936616	1364184	2862915	4096271	0.200 20.0	0.500 40.0	5.00	10.0	15.0
1,1,2,2-Tetrachloroethane	CBZ	Ave	31795 3697318	82087 6283079	793343	1767402	2369263	0.200 20.0	0.500 40.0	5.00	10.0	15.0
n-Propylbenzene	CBZ	Ave	59368 7572189	170366 12329069	1582032	3393880	5095918	0.200 20.0	0.500 40.0	5.00	10.0	15.0
1,2,3-Trichloropropane	CBZ	Ave	59491 2436051	3994650	533538	1105749	1642816	20.0	0.500 40.0	5.00	10.0	15.0
n-Decane	CBZ	Ave	2538531	53241 4032325	564622	1171518	1723726	20.0	0.500 40.0	5.00	10.0	15.0
4-Ethyltoluene	CBZ	Ave	54282 6921574	132948 11899547	1340266	2947275	4500371	0.200 20.0	0.500 40.0	5.00	10.0	15.0
2-Chlorotoluene	CBZ	Ave	55578 6081121	138302 10435157	1258300	2647243	3991987	0.200 20.0	0.500 40.0	5.00	10.0	15.0
1,3,5-Trimethylbenzene	CBZ	Ave	44272 5696713	117959 9903377	1106738	2547264	3670194	0.200 20.0	0.500 40.0	5.00	10.0	15.0
tert-Butylbenzene	CBZ	Ave	46762 5763621	112968 9871967	1076466	2371323	3531374	0.200 20.0	0.500 40.0	5.00	10.0	15.0
1,2,4-Trimethylbenzene	CBZ	Ave	42053 5768081	123966 10033554	1119283	2481900	3750619	0.200 20.0	0.500 40.0	5.00	10.0	15.0
sec-Butylbenzene	CBZ	Ave	66231 8050567	175276 13990355	1762309	3489425	5321661	0.200 20.0	0.500 40.0	5.00	10.0	15.0
4-Isopropyltoluene	CBZ	Ave	48064 7048124	128391 12320506	1423375	2952439	4608248	0.200 20.0	0.500 40.0	5.00	10.0	15.0

FORM VI  
 AIR - GC/MS VOA INITIAL CALIBRATION DATA  
 INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-1136-1 Analy Batch No.: 5008

SDG No.: MORRILL (200-1136)

Instrument ID: G.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/09/2010 15:59 Calibration End Date: 08/09/2010 20:50 Calibration ID: 1811

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,3-Dichlorobenzene	CBZ	Ave	38190 4826587	97457 8821500	966869	1962812	3423926	0.200 20.0	0.500 40.0	5.00	10.0	15.0
1,4-Dichlorobenzene	CBZ	Ave	36624 4864802	93320 8808761	947181	1936682	3271592	0.200 20.0	0.500 40.0	5.00	10.0	15.0
Benzyl chloride	CBZ	Ave	30356 4755150	81252 8842627	925377	1732019	3032104	0.200 20.0	0.500 40.0	5.00	10.0	15.0
n-Undecane	CBZ	Ave	2467773	4024884	451232	976238	1402872	20.0	40.0	5.00	10.0	15.0
n-Butylbenzene	CBZ	Ave	36897 5842555	99486 10011478	1177788	2673719	3796218	0.200 20.0	0.500 40.0	5.00	10.0	15.0
1,2-Dichlorobenzene	CBZ	Ave	33218 4863070	89755 8443166	889915	2039877	3240270	0.200 20.0	0.500 40.0	5.00	10.0	15.0
n-Dodecane	CBZ	Ave	1479930	1513689	310750	544872	1111986	20.0	40.0	5.00	10.0	15.0
1,2,4-Trichlorobenzene	CBZ	Ave	3746900	40156 5330236	430200	1271037	2173173	20.0	0.500 40.0	5.00	10.0	15.0
Hexachlorobutadiene	CBZ	Ave	19700 3955785	60498 4710158	615968	1483034	2385965	0.200 20.0	0.500 40.0	5.00	10.0	15.0
Naphthalene	CBZ	Ave	6252764	68336 9254416	802489	1834833	3846129	20.0	0.500 40.0	5.00	10.0	15.0
1,2,3-Trichlorobenzene	CBZ	Ave	19206 3085488	33817 3338330	357812	839519	1826099	0.200 20.0	0.500 40.0	5.00	10.0	15.0

Curve Type Legend:

Ave = Average ISTD

FORM VII  
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Lab Sample ID: ICV 200-5008/11 Calibration Date: 08/09/2010 22:27  
 Instrument ID: G.i Calib Start Date: 08/09/2010 15:59  
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 08/09/2010 20:50  
 Lab File ID: geu011.d Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Propylene	Ave	0.1935	0.1863		9.63	10.0	-3.7	30.0
Dichlorodifluoromethane	Ave	1.480	1.427		9.64	10.0	-3.6	30.0
Freon 22	Ave	0.5773	0.5560		9.63	10.0	-3.7	30.0
1,2-Dichlorotetrafluoroethane	Ave	1.435	1.369		9.54	10.0	-4.6	30.0
Chloromethane	Ave	0.3216	0.3127		9.72	10.0	-2.8	30.0
n-Butane	Ave	0.4938	0.4826		9.77	10.0	-2.3	30.0
Vinyl chloride	Ave	0.4799	0.4756		9.91	10.0	-0.9	30.0
1,3-Butadiene	Ave	0.3343	0.3331		9.96	10.0	-0.4	30.0
Bromomethane	Ave	0.9202	0.9007		9.79	10.0	-2.1	30.0
Chloroethane	Ave	0.3421	0.2980		8.71	10.0	-12.9	30.0
Isopentane	Ave	0.6252	0.5759		9.21	10.0	-7.9	30.0
Bromoethene (Vinyl Bromide)	Ave	0.9908	0.9833		9.92	10.0	-0.8	30.0
Trichlorofluoromethane	Ave	2.480	2.238		9.02	10.0	-9.8	30.0
n-Pentane	Ave	1.083	0.9465		8.74	10.0	-12.6	30.0
Ethanol	Ave	0.2376	0.1887		11.9	15.0	-20.6	30.0
Ethyl ether	Ave	0.4504	0.3890		8.63	10.0	-13.6	30.0
Acrolein	Ave	0.2319	0.1850		7.98	10.0	-20.2	30.0
Freon TF	Ave	1.838	1.802		9.80	10.0	-2.0	30.0
1,1-Dichloroethene	Ave	0.8725	0.8445		9.68	10.0	-3.2	30.0
Acetone	Ave	0.8361	0.8237		9.85	10.0	-1.5	30.0
Isopropyl alcohol	Ave	0.6501	0.5517		8.48	10.0	-15.1	30.0
Carbon disulfide	Ave	2.581	2.394		9.27	10.0	-7.3	30.0
3-Chloropropene	Ave	0.7537	0.6899		9.15	10.0	-8.5	30.0
Acetonitrile	Ave	0.3939	0.3621		9.19	10.0	-8.1	30.0
Methylene Chloride	Ave	0.7887	0.7575		9.60	10.0	-4.0	30.0
tert-Butyl alcohol	Ave	1.007	0.8895		8.83	10.0	-11.7	30.0
Methyl tert-butyl ether	Ave	1.904	1.808		9.49	10.0	-5.0	30.0
trans-1,2-Dichloroethene	Ave	1.133	1.067		9.42	10.0	-5.8	30.0
n-Hexane	Ave	1.059	0.996		9.41	10.0	-5.9	30.0
1,1-Dichloroethane	Ave	1.418	1.350		9.52	10.0	-4.8	30.0
Vinyl acetate	Ave	1.343	1.312		9.77	10.0	-2.3	30.0
cis-1,2-Dichloroethene	Ave	0.9666	0.9591		9.92	10.0	-0.8	30.0
Methyl Ethyl Ketone	Ave	0.3143	0.3087		9.82	10.0	-1.8	30.0
Ethyl acetate	Ave	0.0513	0.0506		9.86	10.0	-1.4	30.0
Tetrahydrofuran	Ave	0.1259	0.1170		9.29	10.0	-7.1	30.0
Chloroform	Ave	1.896	1.786		9.42	10.0	-5.8	30.0
Cyclohexane	Ave	0.2509	0.2376		9.47	10.0	-5.3	30.0
1,1,1-Trichloroethane	Ave	0.4746	0.4302		9.06	10.0	-9.4	30.0
Carbon tetrachloride	Ave	0.5480	0.4777		8.72	10.0	-12.8	30.0
2,2,4-Trimethylpentane	Ave	0.7622	0.7089		9.30	10.0	-7.0	30.0

FORM VII  
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Lab Sample ID: ICV 200-5008/11 Calibration Date: 08/09/2010 22:27  
 Instrument ID: G.i Calib Start Date: 08/09/2010 15:59  
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 08/09/2010 20:50  
 Lab File ID: geu011.d Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzene	Ave	0.5760	0.4929		8.55	10.0	-14.4	30.0
1,2-Dichloroethane	Ave	0.2402	0.2043		8.50	10.0	-14.9	30.0
n-Heptane	Ave	0.2546	0.2141		8.41	10.0	-15.9	30.0
Trichloroethene	Ave	0.3042	0.2658		8.74	10.0	-12.6	30.0
1,2-Dichloropropane	Ave	0.1947	0.1717		8.82	10.0	-11.8	30.0
Methyl methacrylate	Ave	0.1627	0.1454		8.93	10.0	-10.6	30.0
1,4-Dioxane	Ave	0.0728	0.0566		7.77	10.0	-22.3	30.0
Dibromomethane	Ave	0.3463	0.3094		8.93	10.0	-10.7	30.0
Bromodichloromethane	Ave	0.4788	0.4344		9.07	10.0	-9.3	30.0
cis-1,3-Dichloropropene	Ave	0.3120	0.2771		8.88	10.0	-11.2	30.0
Methyl isobutyl ketone	Ave	0.2430	0.2023		8.32	10.0	-16.8	30.0
n-Octane	Ave	0.3136	0.2513		8.01	10.0	-19.9	30.0
Toluene	Ave	0.4222	0.3659		8.67	10.0	-13.3	30.0
trans-1,3-Dichloropropene	Ave	0.3220	0.2658		8.25	10.0	-17.5	30.0
1,1,2-Trichloroethane	Ave	0.2294	0.1904		8.30	10.0	-17.0	30.0
Tetrachloroethene	Ave	0.4834	0.4506		9.32	10.0	-6.8	30.0
Methyl Butyl Ketone (2-Hexanone)	Ave	0.2464	0.1942		7.88	10.0	-21.2	30.0
Dibromochloromethane	Ave	0.5848	0.5498		9.40	10.0	-6.0	30.0
1,2-Dibromoethane	Ave	0.4692	0.4075		8.68	10.0	-13.2	30.0
Chlorobenzene	Ave	0.6254	0.5581		8.92	10.0	-10.8	30.0
Ethylbenzene	Ave	0.8411	0.7875		9.36	10.0	-6.4	30.0
n-Nonane	Ave	0.3218	0.2978		9.25	10.0	-7.5	30.0
m,p-Xylene	Ave	0.3654	0.3395		18.6	20.0	-7.1	30.0
Xylene, o-	Ave	0.3768	0.3284		8.71	10.0	-12.8	30.0
Styrene	Ave	0.5703	0.5095		8.93	10.0	-10.7	30.0
Bromoform	Ave	0.6175	0.6300		10.2	10.0	2.0	30.0
Cumene	Ave	0.9947	0.9157		9.20	10.0	-7.9	30.0
1,1,2,2-Tetrachloroethane	Ave	0.5696	0.4644		8.15	10.0	-18.5	30.0
n-Propylbenzene	Ave	1.140	1.056		9.26	10.0	-7.4	30.0
1,2,3-Trichloropropane	Ave	0.3824	0.3329		8.70	10.0	-12.9	30.0
n-Decane	Ave	0.3885	0.3578		9.21	10.0	-7.9	30.0
4-Ethyltoluene	Ave	1.001	0.9458		9.44	10.0	-5.6	30.0
2-Chlorotoluene	Ave	0.9347	0.8409		8.99	10.0	-10.0	30.0
1,3,5-Trimethylbenzene	Ave	0.8389	0.7536		8.98	10.0	-10.2	30.0
tert-Butylbenzene	Ave	0.8247	0.7616		9.23	10.0	-7.7	30.0
1,2,4-Trimethylbenzene	Ave	0.8434	0.7302		8.66	10.0	-13.4	30.0
sec-Butylbenzene	Ave	1.223	1.099		8.99	10.0	-10.1	30.0
4-Isopropyltoluene	Ave	1.001	0.9492		9.48	10.0	-5.2	30.0
1,3-Dichlorobenzene	Ave	0.7177	0.6348		8.84	10.0	-11.5	30.0
1,4-Dichlorobenzene	Ave	0.7021	0.6318		9.00	10.0	-10.0	30.0

FORM VII  
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Lab Sample ID: ICV 200-5008/11 Calibration Date: 08/09/2010 22:27  
 Instrument ID: G.i Calib Start Date: 08/09/2010 15:59  
 GC Column: RTX-624 ID: 0.32(mm) Calib End Date: 08/09/2010 20:50  
 Lab File ID: geu011.d Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzyl chloride	Ave	0.6513	0.5193		7.97	10.0	-20.3	30.0
n-Undecane	Ave	0.3403	0.2328		6.84	10.0	-31.6*	30.0
n-Butylbenzene	Ave	0.8232	0.7768		9.43	10.0	-5.6	30.0
1,2-Dichlorobenzene	Ave	0.6838	0.5904		8.63	10.0	-13.7	30.0
n-Dodecane	Ave	0.2048	0.1553		7.58	10.0	-24.2	30.0
1,2,4-Trichlorobenzene	Ave	0.4281	0.3247		7.58	10.0	-24.2	30.0
Hexachlorobutadiene	Ave	0.4724	0.3811		8.06	10.0	-19.3	30.0
Naphthalene	Ave	0.7224	0.5901		8.17	10.0	-18.3	30.0
1,2,3-Trichlorobenzene	Ave	0.3303	0.2695		8.16	10.0	-18.4	30.0

FORM VII  
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Lab Sample ID: CCVIS 200-5449/2 Calibration Date: 08/21/2010 15:45  
 Instrument ID: G.i Calib Start Date: 08/09/2010 15:59  
 GC Column: RTX-624 ID: 0.32(mm) Calib End Date: 08/09/2010 20:50  
 Lab File ID: geuj002.d Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Propylene	Ave	0.1935	0.2931		15.1	10.0	51.5*	30.0
Dichlorodifluoromethane	Ave	1.480	1.921		13.0	10.0	29.8	30.0
Freon 22	Ave	0.5773	0.7879		13.6	10.0	36.5*	30.0
1,2-Dichlorotetrafluoroethane	Ave	1.435	1.737		12.1	10.0	21.1	30.0
Chloromethane	Ave	0.3216	0.4052		12.6	10.0	26.0	30.0
n-Butane	Ave	0.4938	0.6306		12.8	10.0	27.7	30.0
Vinyl chloride	Ave	0.4799	0.5518		11.5	10.0	15.0	30.0
1,3-Butadiene	Ave	0.3343	0.3740		11.2	10.0	11.9	30.0
Bromomethane	Ave	0.9202	0.8710		9.46	10.0	-5.3	30.0
Chloroethane	Ave	0.3421	0.3455		10.1	10.0	1.0	30.0
Isopentane	Ave	0.6252	0.6927		11.1	10.0	10.8	30.0
Bromoethene(Vinyl Bromide)	Ave	0.9908	0.8908		8.99	10.0	-10.1	30.0
Trichlorofluoromethane	Ave	2.480	2.568		10.4	10.0	3.5	30.0
n-Pentane	Ave	1.083	1.180		10.9	10.0	8.9	30.0
Ethanol	Ave	0.2376	0.2442		15.4	15.0	2.8	30.0
Ethyl ether	Ave	0.4504	0.4437		9.85	10.0	-1.5	30.0
Acrolein	Ave	0.2319	0.2216		9.55	10.0	-4.4	30.0
Freon TF	Ave	1.838	1.742		9.48	10.0	-5.2	30.0
1,1-Dichloroethene	Ave	0.8725	0.7757		8.89	10.0	-11.1	30.0
Acetone	Ave	0.8361	1.071		12.8	10.0	28.1	30.0
Isopropyl alcohol	Ave	0.6501	0.7067		10.9	10.0	8.7	30.0
Carbon disulfide	Ave	2.581	2.460		9.53	10.0	-4.7	30.0
3-Chloropropene	Ave	0.7537	0.8117		10.8	10.0	7.7	30.0
Acetonitrile	Ave	0.3939	0.4462		11.3	10.0	13.3	30.0
Methylene Chloride	Ave	0.7887	0.8296		10.5	10.0	5.2	30.0
tert-Butyl alcohol	Ave	1.007	1.182		11.7	10.0	17.4	30.0
Methyl tert-butyl ether	Ave	1.904	1.924		10.1	10.0	1.1	30.0
trans-1,2-Dichloroethene	Ave	1.133	1.202		10.6	10.0	6.2	30.0
n-Hexane	Ave	1.059	1.097		10.4	10.0	3.6	30.0
1,1-Dichloroethane	Ave	1.418	1.500		10.6	10.0	5.8	30.0
Vinyl acetate	Ave	1.343	1.491		11.1	10.0	11.0	30.0
cis-1,2-Dichloroethene	Ave	0.9666	0.9207		9.52	10.0	-4.8	30.0
Methyl Ethyl Ketone	Ave	0.3143	0.2869		9.13	10.0	-8.7	30.0
Ethyl acetate	Ave	0.0513	0.0453		8.82	10.0	-11.8	30.0
Tetrahydrofuran	Ave	0.1259	0.1313		10.4	10.0	4.3	30.0
Chloroform	Ave	1.896	2.004		10.6	10.0	5.7	30.0
1,1,1-Trichloroethane	Ave	0.4746	0.5028		10.6	10.0	5.9	30.0
Cyclohexane	Ave	0.2509	0.2425		9.66	10.0	-3.4	30.0
Carbon tetrachloride	Ave	0.5480	0.5647		10.3	10.0	3.1	30.0
2,2,4-Trimethylpentane	Ave	0.7622	0.8018		10.5	10.0	5.2	30.0



FORM VII  
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Lab Sample ID: CCVIS 200-5449/2 Calibration Date: 08/21/2010 15:45  
 Instrument ID: G.i Calib Start Date: 08/09/2010 15:59  
 GC Column: RTX-624 ID: 0.32(mm) Calib End Date: 08/09/2010 20:50  
 Lab File ID: geuj002.d Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzene	Ave	0.5760	0.5632		9.77	10.0	-2.2	30.0
1,2-Dichloroethane	Ave	0.2402	0.2836		11.8	10.0	18.1	30.0
n-Heptane	Ave	0.2546	0.2776		10.9	10.0	9.0	30.0
Trichloroethene	Ave	0.3042	0.3023		9.93	10.0	-0.6	30.0
1,2-Dichloropropane	Ave	0.1947	0.1913		9.82	10.0	-1.8	30.0
Methyl methacrylate	Ave	0.1627	0.1398		8.59	10.0	-14.1	30.0
1,4-Dioxane	Ave	0.0728	0.0660		9.07	10.0	-9.3	30.0
Dibromomethane	Ave	0.3463	0.3007		8.68	10.0	-13.2	30.0
Bromodichloromethane	Ave	0.4788	0.4908		10.2	10.0	2.5	30.0
cis-1,3-Dichloropropene	Ave	0.3120	0.3172		10.2	10.0	1.7	30.0
Methyl isobutyl ketone	Ave	0.2430	0.2567		10.6	10.0	5.6	30.0
n-Octane	Ave	0.3136	0.3485		11.1	10.0	11.1	30.0
Toluene	Ave	0.4222	0.4032		9.55	10.0	-4.5	30.0
trans-1,3-Dichloropropene	Ave	0.3220	0.3226		10.0	10.0	0.2	30.0
1,1,2-Trichloroethane	Ave	0.2294	0.2199		9.58	10.0	-4.2	30.0
Tetrachloroethene	Ave	0.4834	0.4449		9.20	10.0	-8.0	30.0
Methyl Butyl Ketone (2-Hexanone)	Ave	0.2464	0.2595		10.5	10.0	5.3	30.0
Dibromochloromethane	Ave	0.5848	0.5696		9.74	10.0	-2.6	30.0
1,2-Dibromoethane	Ave	0.4692	0.4479		9.54	10.0	-4.5	30.0
Chlorobenzene	Ave	0.6254	0.5854		9.36	10.0	-6.4	30.0
Ethylbenzene	Ave	0.8411	0.8564		10.2	10.0	1.8	30.0
n-Nonane	Ave	0.3218	0.3453		10.7	10.0	7.3	30.0
m,p-Xylene	Ave	0.3654	0.3477		19.0	20.0	-4.8	30.0
Xylene, o-	Ave	0.3768	0.3437		9.12	10.0	-8.8	30.0
Styrene	Ave	0.5703	0.5183		9.09	10.0	-9.1	30.0
Bromoform	Ave	0.6175	0.5809		9.41	10.0	-5.9	30.0
Cumene	Ave	0.9947	0.9789		9.84	10.0	-1.6	30.0
1,1,2,2-Tetrachloroethane	Ave	0.5696	0.5422		9.52	10.0	-4.8	30.0
n-Propylbenzene	Ave	1.140	1.148		10.1	10.0	0.6	30.0
1,2,3-Trichloropropane	Ave	0.3824	0.3883		10.2	10.0	1.5	30.0
n-Decane	Ave	0.3885	0.4191		10.8	10.0	7.9	30.0
4-Ethyltoluene	Ave	1.001	0.9842		9.83	10.0	-1.7	30.0
2-Chlorotoluene	Ave	0.9347	0.9220		9.86	10.0	-1.4	30.0
1,3,5-Trimethylbenzene	Ave	0.8389	0.8176		9.74	10.0	-2.5	30.0
tert-Butylbenzene	Ave	0.8247	0.7836		9.50	10.0	-5.0	30.0
1,2,4-Trimethylbenzene	Ave	0.8434	0.8168		9.68	10.0	-3.2	30.0
sec-Butylbenzene	Ave	1.223	1.171		9.57	10.0	-4.3	30.0
4-Isopropyltoluene	Ave	1.001	0.9534		9.52	10.0	-4.8	30.0
1,3-Dichlorobenzene	Ave	0.7177	0.6316		8.80	10.0	-12.0	30.0
1,4-Dichlorobenzene	Ave	0.7021	0.6238		8.88	10.0	-11.1	30.0

FORM VII  
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Lab Sample ID: CCVIS 200-5449/2 Calibration Date: 08/21/2010 15:45  
 Instrument ID: G.i Calib Start Date: 08/09/2010 15:59  
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 08/09/2010 20:50  
 Lab File ID: geuj002.d Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzyl chloride	Ave	0.6513	0.5090		7.81	10.0	-21.8	30.0
n-Undecane	Ave	0.3403	0.2965		8.71	10.0	-12.9	30.0
n-Butylbenzene	Ave	0.8232	0.8127		9.87	10.0	-1.3	30.0
1,2-Dichlorobenzene	Ave	0.6838	0.6015		8.79	10.0	-12.0	30.0
n-Dodecane	Ave	0.2048	0.2283		11.1	10.0	11.5	30.0
1,2,4-Trichlorobenzene	Ave	0.4281	0.3191		7.45	10.0	-25.5	30.0
Hexachlorobutadiene	Ave	0.4724	0.4309		9.12	10.0	-8.8	30.0
Naphthalene	Ave	0.7224	0.5890		8.15	10.0	-18.5	30.0
1,2,3-Trichlorobenzene	Ave	0.3303	0.2614		7.91	10.0	-20.8	30.0

FORM I  
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 200-5449/4  
 Matrix: Air Lab File ID: geuj004.d  
 Analysis Method: TO-15 Date Collected: \_\_\_\_\_  
 Sample wt/vol: 200(mL) Date Analyzed: 08/21/2010 17:21  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: RTX-624 ID: 0.32(mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 5449 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
67-66-3	Chloroform	119.38	0.20	U	0.20	0.050
56-23-5	Carbon tetrachloride	153.81	0.20	U	0.20	0.050

FORM I  
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 200-5449/4  
 Matrix: Air Lab File ID: geuj004.d  
 Analysis Method: TO-15 Date Collected: \_\_\_\_\_  
 Sample wt/vol: 200 (mL) Date Analyzed: 08/21/2010 17:21  
 Soil Aliquot Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: RTX-624 ID: 0.32 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 5449 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
67-66-3	Chloroform	119.38	0.98	U	0.98	0.24
56-23-5	Carbon tetrachloride	153.81	1.3	U	1.3	0.31

FORM I  
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-1136-1  
 SDG No.: MORRILL (200-1136)  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 200-5449/3  
 Matrix: Air Lab File ID: geuj003.d  
 Analysis Method: TO-15 Date Collected: \_\_\_\_\_  
 Sample wt/vol: 200 (mL) Date Analyzed: 08/21/2010 16:33  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: RTX-624 ID: 0.32 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 5449 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
67-66-3	Chloroform	119.38	10.9		0.20	0.050
56-23-5	Carbon tetrachloride	153.81	10.4		0.20	0.050

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington

Job No.: 200-1136-1

SDG No.: MORRILL (200-1136)

Instrument ID: G.i

Start Date: 08/09/2010 14:23

Analysis Batch Number: 5008

End Date: 08/10/2010 13:09

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 200-5008/1		08/09/2010 14:23	1	geu001.d	RTX-624 0.32 (mm)
VIBLK 200-5008/2		08/09/2010 15:10	1		RTX-624 0.32 (mm)
IC 200-5008/3		08/09/2010 15:59	1	geu003.d	RTX-624 0.32 (mm)
IC 200-5008/4		08/09/2010 16:47	1	geu004.d	RTX-624 0.32 (mm)
IC 200-5008/5		08/09/2010 17:35	1	geu005.d	RTX-624 0.32 (mm)
ICIS 200-5008/6		08/09/2010 18:24	1	geu006.d	RTX-624 0.32 (mm)
IC 200-5008/7		08/09/2010 19:12	1	geu007.d	RTX-624 0.32 (mm)
IC 200-5008/8		08/09/2010 20:01	1	geu008.d	RTX-624 0.32 (mm)
IC 200-5008/9		08/09/2010 20:50	1	geu009.d	RTX-624 0.32 (mm)
VIBLK 200-5008/10		08/09/2010 21:38	1		RTX-624 0.32 (mm)
ICV 200-5008/11		08/09/2010 22:27	1	geu011.d	RTX-624 0.32 (mm)
ZZZZZ		08/09/2010 23:15	1		RTX-624 0.32 (mm)
ZZZZZ		08/10/2010 00:04	1		RTX-624 0.32 (mm)
ZZZZZ		08/10/2010 00:52	1		RTX-624 0.32 (mm)
ZZZZZ		08/10/2010 01:41	1		RTX-624 0.32 (mm)
ZZZZZ		08/10/2010 02:30	1		RTX-624 0.32 (mm)
ZZZZZ		08/10/2010 03:18	1		RTX-624 0.32 (mm)
ZZZZZ		08/10/2010 04:07	1		RTX-624 0.32 (mm)
ZZZZZ		08/10/2010 04:56	1		RTX-624 0.32 (mm)
ZZZZZ		08/10/2010 05:44	1		RTX-624 0.32 (mm)
ZZZZZ		08/10/2010 10:00	1		RTX-624 0.32 (mm)
ZZZZZ		08/10/2010 11:32	10		RTX-624 0.32 (mm)
ZZZZZ		08/10/2010 12:21	10		RTX-624 0.32 (mm)
ZZZZZ		08/10/2010 13:09	10		RTX-624 0.32 (mm)

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington

Job No.: 200-1136-1

SDG No.: MORRILL (200-1136)

Instrument ID: G.i

Start Date: 08/21/2010 14:59

Analysis Batch Number: 5449

End Date: 08/22/2010 09:28

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 200-5449/1		08/21/2010 14:59	1	geuj001.d	RTX-624 0.32 (mm)
CCVIS 200-5449/2		08/21/2010 15:45	1	geuj002.d	RTX-624 0.32 (mm)
LCS 200-5449/3		08/21/2010 16:33	1	geuj003.d	RTX-624 0.32 (mm)
MB 200-5449/4		08/21/2010 17:21	1	geuj004.d	RTX-624 0.32 (mm)
200-1136-1	104 ROXANNA ST 1ST	08/21/2010 18:10	1	geuj005.d	RTX-624 0.32 (mm)
200-1136-2	104 ROXANNA ST BASEMENT	08/21/2010 18:58	1	geuj006.d	RTX-624 0.32 (mm)
200-1136-3	102 VIRGINIA ST 1ST	08/21/2010 19:46	1	geuj007.d	RTX-624 0.32 (mm)
200-1136-4	102 VIRGINIA ST BASEMENT	08/21/2010 20:35	1	geuj008.d	RTX-624 0.32 (mm)
200-1136-5	202 ROXANNA ST 1ST	08/21/2010 21:23	1	geuj009.d	RTX-624 0.32 (mm)
200-1136-6	202 ROXANNA ST BASEMENT	08/21/2010 22:12	1	geuj010.d	RTX-624 0.32 (mm)
200-1136-7	203 ROXANNA ST 1ST	08/21/2010 23:00	1	geuj011.d	RTX-624 0.32 (mm)
200-1136-8	107 ROXANNA ST MAIN ROOM	08/21/2010 23:48	1	geuj012.d	RTX-624 0.32 (mm)
200-1136-9	96 VIRGINIA ST OFFICE	08/22/2010 00:37	1	geuj013.d	RTX-624 0.32 (mm)
200-1136-10	AMBIENT AIR MW1	08/22/2010 01:25	1	geuj014.d	RTX-624 0.32 (mm)
200-1136-11	107 ROXANNA ST OFFICE	08/22/2010 02:13	1	geuj015.d	RTX-624 0.32 (mm)
200-1136-12	107 ROXANNA ST KID ROOM	08/22/2010 03:01	1	geuj016.d	RTX-624 0.32 (mm)
200-1136-13	108 ROXANNA ST 1ST	08/22/2010 03:50	1	geuj017.d	RTX-624 0.32 (mm)
200-1136-14	108 ROXANNA ST BASEMENT	08/22/2010 04:38	1	geuj018.d	RTX-624 0.32 (mm)
200-1136-15	106 VIRGINIA ST 1ST	08/22/2010 05:26	1	geuj019.d	RTX-624 0.32 (mm)
200-1136-16	105 ROXANNA ST 1ST	08/22/2010 06:14	1	geuj020.d	RTX-624 0.32 (mm)
ZZZZZ		08/22/2010 07:02	1		RTX-624 0.32 (mm)
ZZZZZ		08/22/2010 07:51	1		RTX-624 0.32 (mm)
ZZZZZ		08/22/2010 08:40	1		RTX-624 0.32 (mm)
ZZZZZ		08/22/2010 09:28	1		RTX-624 0.32 (mm)

**GC/MS INSTRUMENT RUN LOG**

Sequence				Standard Traceability				Instrument Information			
Batch ID: <b>GEU</b>		Start Date: <b>8/9/10</b> Time: <b>1423</b>		ISTD Lot #: <b>27767</b>				Instrument ID: G			
Test Method: <b>TO15</b>		End Date: <b>8/10/10</b> Time: <b>1423</b>		CAL STD Lot # <b>see comment</b>				Instrument: 5973			
ICAL Data: <b>8/9/10</b>				ICV / LCS Lot # <b>see comment</b>				Column Type: RTX-624			
Manager			Analyst <b>WNO</b>		Analyst <b>SI</b>		Analyst		Analyst		
Name/Initial			<b>William DeJandrew</b>		<b>Sorel Haljeval</b>						
Signature			<i>[Signature]</i>		<i>[Signature]</i>						
Sequence Information								Individual Sample Review			Comments / Standard Traceability
Injection Time	TALS ID / File Name	Summa Can ID	ETR	Dilution Factor	Inlet #	Volume (mL)	Operator	Internal Std.	Result Conc.	Primary Anal.	
1423	GEU001		BFB	1A	1A	1A	WNO	1A	1A	WNO	
1510	002	4634	VIBLK		1	200					
1559	002	3093	IC level 1		2				✓		029125
1647	004	5069	IC level 2		3				✓		029127
1735	005	3152	IC level 3		4				✓		029125
1824	006	3308	icis level 4		5				✓		036532
1912	007	3562	IC level 5		6				✓		029121
2001	008	3643	IC level 6		7				✓		029120
2050	009	3366	IC level 7		8				✓		029118
2138	010	4634	11184K		9						
2227	011	2906	LCS		9	200		✓	✓		032791 <i>double check</i>
2315	012	2906	LCS		9			✓	✓		032791
0084	013 <i>prod 8/10</i>	4634	MS		1			✓	✓		
0052	GEU <del>798</del> at 014	5043	798-01	1.0	10	200	SI	✓	↑		VCS1
0141	GEU 015	5042	798-02	1.0	11			✓	↑		VCS1P
0230	016	5049	851-11	1	12	200		✓	↑		area 41
0318	017	3020	-12		13			✓	✓		C
0407	018	2622	-13		14			✓	✓		C
0456	019	5063	-14		15			✓	✓		C
0544	020	5055	-15		16			✓	✓		C
1000	021	3264	-16		1		WNO	✓	✓		C
1132	022	3845	1018-2	10	2	20		✓	✓		C
1221	023	3594	-3		3			✓	✓		C
1309	024	4661	-4		4			✓	✓		C

Legend: C=Complete • R=Reanalyze • = High • ↓= Low • ✓=Reviewed and Acceptable



**GC/MS INSTRUMENT RUN LOG**

<b>Sequence</b>			<b>Standard Traceability</b>			<b>Instrument Information</b>		
Batch ID: <u>GENJ</u>	Start Date: <u>08/21/10</u>	Time:	ISTD Lot #: <u>24767</u>	Instrument ID: G				
Test Method: <u>TDS</u>	End Date: <u>08/21/10</u>	Time:	CAL STD Lot # <u>038982</u>	Instrument: 5973				
ICAL Date: <u>07/28/2010</u>			ICV / LCS Lot # <u>040609</u>	Column Type: RTX-624				

<b>Manager</b>	<b>Analyst</b> <u>SV</u>	<b>Analyst</b>	<b>Analyst</b>
Name/Initial	<u>Sarah Wagner</u>		
Signature	<u>Sarah</u>		

Sequence Information								Individual Sample Review			Comments / Standard Traceability
Injection Time	TALS ID / File Name	Summa Can ID	ETR	Dilution Factor	Inlet #	Volume (mL)	Operator	Internal Std.	Result Conc.	Primary Anal.	
1459	GENJ001	NA	RFB	NA			NSR	NA	✓	NSR	
1545	02	2575	CCV		1	200		✓	✓		25 13
1633	03	2960	LCS		2			✓	✓		39 123 2 ↓ 91.97
1721	04	4632	MB		3			✓	✓		
1810	05	5226	1136-1	1	4	200		✓	✓		
<del>1858</del>	06	5233	2	1	5			✓	✓		
<del>1946</del>	07	3295	3	1	6			✓	✓		
<del>2035</del>	08	5234	4	1	7			✓	✓		
<del>2123</del>	09	4046	5	1	8			✓	✓	SV	
<del>2212</del>	10	3113	6	1	9			✓	✓		Acc ↑
<del>2300</del>	11	4491	7	1	10			✓	✓		R-2 SV 08/21/10
<del>2348</del>	12	5220	8	1	11			✓	✓		
<del>2437</del>	13	3055	9	1	12			✓	✓		
<del>2525</del>	14	5228	10	1	13			✓	✓		
<del>2613</del>	15	5227	11	1	14			✓	✓		
<del>2701</del>	16	5230	12	1	15			✓	✓		
<del>2850</del>	17	5238	13	1	16			✓	✓		
<del>2938</del>	18	5232	14	1	17			✓	✓		
<del>3026</del>	19	5214	15	1	18			✓	✓		
<del>3114</del>	20	4062	16	1	19			✓	✓		
0702	21	3707	1037-1	1	4	200		✓	✓		
0751	22	3074	2	1	5			✓	✓		
0840	23	2511	3	1	6			✓	✓		
0928	24	2601	4	1	7			✓	✓	SV	
<del>0928</del>	25				8						

Legend: C=Complete ▪ R=Reanalyze ▪ = High ▪ ↓= Low ▪ ✓=Reviewed and Acceptable

# **Shipping and Receiving Documents**

fedex.com 1800.GoFedEx 1800.463.3339

fedex.com 1800.GoFedEx 1800.463.3339

1 **From**

Date \_\_\_\_\_ Sender's FedEx Account Number 711-3523-0

Sender's Name \_\_\_\_\_ Phone \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_ Dept./Floor/Suite/Room \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ ZIP \_\_\_\_\_

2 **Your Internal Billing Reference** \_\_\_\_\_

3 **To**

Recipient's Name \_\_\_\_\_ Phone \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_ Dept./Floor/Suite/Room \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ ZIP \_\_\_\_\_

4 **HOLD Weekday**  **HOLD Saturday**

Print FedEx location address below. NOT available for FedEx First Overnight. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.



8717 3523 1610

4a **Express Package Service** \* To most locations. Packages up to 150 lbs.

1  **FedEx Priority Overnight** Next business morning. \* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

5  **FedEx Standard Overnight** Next business afternoon. \* Saturday Delivery NOT available.

6  **FedEx First Overnight** Earliest next business morning delivery to select locations. \* Saturday Delivery NOT available.

3  **FedEx 2Day** Second business day. \* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

20  **FedEx Express Saver** Third business day. \* Saturday Delivery NOT available.

4b **Express Freight Service** \*\* To most locations. Packages over 150 lbs.

7  **FedEx 1 Day Freight** Next business day. \* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected. FedEx 1 Day Freight Booking Fee

8  **FedEx 2 Day Freight** Second business day. \* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

83  **FedEx 3 Day Freight** Third business day. \* Saturday Delivery, FEDEX 3 Day

5 **Packaging** \* Declared value limit \$500.

6  **FedEx Envelope** 2  **FedEx Pak** \* Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak.

3  **FedEx Box** 4  **FedEx Tube** 1  **Other**

6 **Special Handling and Delivery Signature Options**

3  **SATURDAY DELIVERY**

**No Signature Required** Package may be left without obtaining a signature for delivery.

10  **Direct Signature** Someone at recipient's address may sign for delivery. Fee applies.

34  **Indirect Signature** If no one is available at recipient's address, someone at a nearby address may sign for delivery. For residential addresses only. Fee applies.

Does this shipment contain dangerous goods? One box must be checked.

**No** 4  **Yes** As per attached Shipper's Declaration.  **Yes** Shipper's Declaration not required.

6  **Dry Ice** Dry Ice, 8 UM 1995 \_\_\_\_\_ kg

**Cargo Aircraft Only**

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box.

7 **Payment Bill to:** Obtain Recip. Acct. No.

Enter FedEx Acct. No. or Credit Card No. below.

1  **Sender** Acct. No. in Section 7 will be billed. 2  **Recipient** 3  **Third Party** 4  **Credit Card** 5  **Cash/Check**

Total Packages \_\_\_\_\_ Total Weight \_\_\_\_\_ Credit Card Auth \_\_\_\_\_

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## Login Sample Receipt Check List

Client: Argonne National Laboratory

Job Number: 200-1136-1  
SDG Number: MORRILL (200-1136)

**Login Number: 1136**  
**Creator: Kolb, Chris M**  
**List Number: 1**

**List Source: TestAmerica Burlington**

Question	T / F/ NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	Ambient
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	False	Minor Discrepancies
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.	N/A	
Sample Preservation Verified	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick needs	N/A	TAT
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

**Post-Sampling Air Canister Pressure Check Record**

Client ID	Job	Date	Time (Military)	Lab BP ("Hg)	Lab Temp (°C)	Pressure Gauge ID	Analyst
ARGLAB	1136	8-17-10	1605	29.7	22	G5	J.J.
Sampling Information and Return Equipment Check					Yes	No	Comments
(1) Is a Field Test Data Sheet (FTDS) or similar sampling documentation present?					✓		
(2) Is the flow controller ID used for each canister recorded?					✓		
(3) Is visible sign of damage to canister and/or flow controller (FC) present?						✓	
If damage observed, list equipment IDs and describe condition:							

**Post-Sampling Return Pressure Check**

Lab ID	Canister ID	Pressure ("Hg)	Anomaly <sup>2</sup> (Y/N)	FC ID <sup>3</sup>	FC Return (Y/N)	Can Cert Batch ID	Comments
1	5124	3.2	N	5226	Y	5128 FDQD	
2	5076	0.0	Y	5233		5077 GESM	
3	5091	-8.0	N	3295		5093 GESM	
4	5133	-7.8		5234		5128 FDQD	
5	5132	-6.8		4046		5128 FDQD	
6	5087	-7.7		3113		5083 GESM	
7	5127	-7.7		4491		5128 FDQD	
8	5114	-9.0		5220		5122 GESN	
9	5073	-6.2		3055		5077 GESM	
10	5134	-8.7		5228		5128 FDQD	
11	4550	-7.2		5227		2604 GESL	
12	5120	-7.5		5230		5122 GESN	
13	5126	-7.2		5238		5128 FDQD	
14	5090	-7.0		5232		5093 GESM	
15	5098	-8.8		5214		5093 GESM	
16	5078	-7.7		4062		5077 GESM	

J.J. 8-17-2010

<sup>1</sup> Criteria: Return Pressure should be between -1 and -10 ("Hg)  
<sup>2</sup> If return pressure is not within criteria, initiate anomaly report.  
<sup>3</sup> Record the ID of the FC used for sampling if information is provided, otherwise leave blank.



## Environmental Science Division

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