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June 2014 Sampling Report
Carroll and Dubies Superfund Site
Town of Deepark, Orange County, New York

Remedial Bureau C
Div of Environmental Remediation

JUL 24 2014

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July 21, 2014
Project No. 104-0012

Dear Ms. Jon:

Please find enclosed three copies of the June 2014 Sampling Report, Carroll and Dubies Superfund Site, Town of Deepark, Orange County, New York. The report summarizes the methods and findings of the 2014 groundwater sampling program for Operable Unit 2.

Summary

The results of the 2014 sampling program for the Carroll and Dubies Site show:

- Monitoring wells MW-4, OW-2, OW-5, OW-6, OW-13R, OW-18, OW-19, OW-21, and OW-22 were sampled. OW-10R was dry and the downhole pump in OW-8 failed, so these wells were not sampled.
- Groundwater elevations were lower on average by 1.09 feet, compared to the February 2013 sampling every fifth quarter beginning in 2013 was to get an up-to-date look at conditions throughout the hydrologic cycle. For the past three sampling rounds (fourth quarter 2011, first quarter 2013, second quarter 2014) the concentrations of volatile organic compounds (VOCs) in groundwater do not appear to be particularly affected by the season.
- Some of the monitoring wells continue to exceed U.S. EPA Maximum Contaminant Levels (MCLs) and New York Standards and Guidance Values (SGVs). Benzene, a VOC of primary concern, exceeded the MCL of 5 ug/L in one monitoring well only during this sampling round, in OW-13R, with a concentration of 10 ug/L. The benzene SGV of 1 ug/L was exceeded in an additional five monitoring wells in June 2014.
- In the first five to ten years following the OU1 removal of lagoon wastes and contaminated soil conducted in 1999, VOC concentrations in most monitoring wells substantially declined. Since that time, concentration trends in general have been slowly declining to stable.

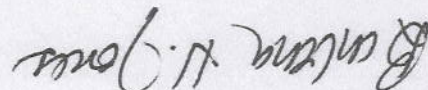
In reviewing the groundwater contaminant concentration trends over the past five years, the many years of monitoring results demonstrate that natural attenuation is continuing to degrade VOCs, and the rate of degradation is slowing as the concentrations decline. This is the expected result, as the declining contaminant concentrations reduce the driving force for the attenuation processes. The results again confirm that Site conditions are stable, with continued confirmation of low

concentrations (on the order of 10 ug/l of benzene) that may drop even lower over time through continued natural attenuation, the existence of institutional controls and the continued absence of receptors. As we have recommended in our prior letter of April 23, 2013, with stable to declining groundwater concentrations and institutional controls in place, conditions will continue to be protective of human health and the environment, with no exposure pathways that could result in unacceptable risks.

By the next Five-Year Review in 2015, we anticipate ending the monitoring program at the Site, in essence, to reach No Further Action status. In the event that any action is necessary to address this step, an Explanation of Significant Differences or other appropriate mechanism would be available. Do not hesitate to call (412.374.0989) or email (bjones@cardinalres.com) to discuss these recommendations, or if you have any other questions about this report.

Sincerely,

CARDINAL RESOURCES



Barbara H. Jones
Principal

cc:

Carroll & Dubies PRP Group
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Ms. Fay S. Navratil - NYSDOH

Mr. Scott Deyette - NYSDEC
Ms. Carole Gallagher - Representing City of Port Jervis



June 2014 Sampling Report

Carroll and Dubies Superfund Site Town of Deerpark, Orange County, New York

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1.0 Introduction

This report summarizes the methods and results of a field sampling program performed from June 10 through 12, 2014 at the Carroll and Dubies Superfund Site (Site), Town of Deerpark, Orange County, New York. The purpose of this sampling program is to document volatile organic compound (VOC) concentrations in the outwash aquifer at the site. The field work followed the August 2005 Supplemental Sampling Work Plan (Cardinal Resources LLC [Cardinal Resources], 2005) approved by the United States Environmental Protection Agency (U.S. EPA), and incorporated the recommendations of the *November 2006 Sampling Report* (Cardinal Resources, 2007). The monitoring program reflects a reduced sampling approach, as recommended in Section 7.0 of the *February 2013 Sampling Report* (Cardinal Resources 2013), and as reviewed in an email to Ms. Maria Jon of U.S. EPA dated May 12, 2014.

The plan was to sample MW-4, OW-2, OW-5, OW-6, OW-8, OW-10R, OW-13R, OW-18, OW-19, OW-21, OW-22, discontinue sampling of MW-1, OW-24 and OW-25, and discontinue sediment and surface water monitoring in Gold Creek at SED-1, SED-2, SW-1, and SW-2. During the field sampling program, the dedicated down-hole sampling pump in OW-8 failed and OW-10R was dry, therefore these wells could not be sampled. The remaining nine wells were sampled according to protocol.

1.1 Site Setting

The three-acre Site is located in the Town of Deerpark in Orange County, New York, which is approximately 3,000 feet northeast of the City of Port Jervis, New York (Figure 1). The Site is situated on the northwestern flank of the Neversink Valley. Gold Creek lies approximately 1,500 feet to the east, and the Neversink River is located approximately 2,500 feet beyond Gold Creek.

The Site is underlain by sand and gravel deposits of glacial and glaciofluvial origin. Groundwater monitoring wells on the Site have been completed in the outwash unit, found above a low-permeability till zone that functions as an aquitard. The outwash unit consists of fine to coarse sand with fine to coarse gravel. The direction of groundwater flow is generally toward the southeast.

1.2 Land and Resource Use

Figure 2 shows land use features in the vicinity of the former Carroll and Dubies lagoons. The immediate surrounding area includes undeveloped woodlands to the north; undeveloped woodlands, quarry ponds, and commercial sand and gravel operations to the northeast; the closed City of Port Jervis landfill, the Orange County Transfer Station, and a concrete products company to the south; and a sparsely vegetated, shale bedrock hillside to the west. In 2004, the City of Port Jervis began a small sand and gravel operation on land it owns, immediately to the southeast of the former lagoons, in the vicinity of OW-5 and OW-6. These conditions have remained stable during the period of site investigation and post-removal monitoring, although truck traffic associated with the sand and gravel operations to the northeast has increased over the past few years. During the June 2014 sampling event, the City of Port Jervis was actively excavating and screening sand and gravel in the area southeast of OW-5 and OW-6.

1.3 History of Waste Disposal and Contamination

In 1971, the three-acre Carroll and Dubies Site began operating as a disposal facility consisting of a series of lagoons. The majority of wastes disposed in the lagoons were septic waste, municipal sewage sludge, and solid waste. The Site also received liquid industrial wastes from approximately 1971 to 1979.

Over time, waste constituents in the lagoons leached into groundwater and affected the outwash aquifer. VOCs were of particular concern because of their dispersion in the aquifer and relative risk. Benzene, vinyl chloride, and other VOCs were found through a series of investigations to exceed Applicable or Relevant and Appropriate Requirements (ARARs) in Site wells.

1.4 Overview of Remedies

The remedies selected for the Site were defined by two operable units (OU), the waste lagoons themselves, and the impacted groundwater. Remedies were selected and executed to remove wastes from the lagoons, restore the Site to a safe and stable condition, and promote and track improvements in groundwater quality.

1.4.1 OU-1 Remedy

The goals of the OU-1 remedy conducted in 1999 were to prevent further leaching of contaminants into groundwater, and to reduce the risks to potential future workers at the Site who could come in contact with lagoon wastes. The steps in this process were:

- Excavation of all wastes from Lagoons 1, 2, 3, 4, 6, 7, and 8, along with surrounding soils that exceeded specified levels for indicator chemicals.
- Appropriate management of all excavated wastes and soils.
- Placement of imported clean fill in the excavations, followed by grading for drainage control and vegetation.

1.4.2 OU-2 Remedy

The goals of the ongoing OU-2 remedy, which was initiated in 1999, are to use natural attenuation to reduce or eliminate the risks associated with the ingestion of Site groundwater for future Site workers and to protect Gold Creek from Site-related impacts. A monitoring program was designed to address concerns primarily related to determining whether the source removal was successful and the site was becoming stabilized. The steps in the OU-2 remedy are:

- Execution of a groundwater monitoring program in accordance with Work Plans and other documents prepared for the project and approved by the U.S. EPA.
- With each sampling round, a report is prepared for U.S. EPA that documents the progress made in achieving the remedial goals.

1.5 Overview of 2006 Groundwater Monitoring Program

A supplemental sampling program was initiated in February 2006 in response to the five-year review. Part of the program was to install two new monitoring wells, OW-24 and OW-25, east and south of OW-2, OW-5, and OW-6 (Figure 2), to determine the extent of the chlorinated VOC plume in the vicinity of OW-2, OW-5, and OW-6. Two existing monitoring wells that were not part of the ongoing groundwater monitoring network, OW-17 and OW-23, downgradient and to the west of OW-2, OW-5, and OW-6, were also redeveloped and sampled.

Groundwater was sampled three more times in 2006: in May, August, and November. The purpose of quarterly sampling of the wells in the vicinity of the chlorinated VOC

plume was to evaluate trends through an entire hydrologic cycle. In all four sampling rounds, the results for the chlorinated VOC plume were consistent. Tetrachloroethene (PCE) and trichloroethene (TCE) and their degradation products (chloroethane, 1,2-dichloroethene, and vinyl chloride) were nondetectable in OW-24 and OW-25. In OW-17 and OW-23, chlorinated VOCs were occasionally detected at low, estimated concentrations below the reporting limit, and below state and federal groundwater criteria. Chlorinated VOC impacts at OW-2, OW-5, and OW-6 remain localized. For additional information on the February, May, August, and November 2006 sampling events, refer to the respective quarterly reports (Cardinal Resources, April 2006; July 2006; November 2006; and January 2007).

1.6 Resumption of Annual Monitoring Program

In June 2007, the annual groundwater monitoring program resumed, and continued in 2008, 2009, 2010, and 2011.

1.7 Modified Sampling Frequency

In 2011, a program was initiated to cover the entire hydrologic cycle over the next five-year period through sampling every five quarters. This enhancement to the sampling program was described in a letter to the U.S. EPA dated November 2, 2010. Based on this rotation, the June 2014 (second quarter) sampling round followed five quarters after the February 2013 (first quarter) sampling round.

2.0 Groundwater Sample Collection

This section describes methods used to collect groundwater samples for analysis. The results of the groundwater sampling and analysis program are provided in Section 4.0.

2.1 Groundwater Elevations

Before sampling began on June 10, groundwater elevations for all site wells except MW-1 and MW-4 were determined from measured depths to water from the reference point elevations. The depth to groundwater was measured using an electronic water-level meter and recorded on a monitoring well sampling form. MW-1 and MW-4 could not be located. These are both flush mount wells that were part of the original monitoring well network installed 20 years ago. MW-1 is in the middle of a dirt road near sand and gravel operations, in an area that sees all-terrain vehicle traffic. MW-4 is at the side of the road in an area of thick undergrowth. MW-4 was eventually located on June 11 after digging and brush clearing, and was sampled.

2.2 Wells and Equipment

Dedicated low-flow bladder pumps were used to purge and sample the monitoring well network, with the exception of wells OW-13R, OW-18, and OW-19. These wells were sampled using a downhole bladder pump that was decontaminated initially and after sampling each well by:

- Washing with low phosphate detergent and tap water
- Rinsing with tap water
- Rinsing with deionized water
- Air drying

Clean disposable tubing and a clean disposable bladder were used for each well sampled with the bladder pump.

OW-18 has a dedicated bladder pump, but the pump was broken. Air was entering from the controller but no water was coming out. The dedicated pumps have been in the wells for more than 10 years and may be reaching the end of their life expectancy. Fortunately, there was extra disposable dual tubing (fused tubing for air in and water out), so the bladder pump could be used to sample this well.

The dedicated pump for OW-8 had also failed, and this well was not sampled because no more fused tubing was available. OW-8 has been nondetectable for VOCs since 2002.

2.3 Well Purging and Sampling

All wells were purged using low-flow techniques (between 100 and 200 milliliters per minute [mL/min]). During purging of each monitoring well, temperature, dissolved oxygen (DO), reduction/oxidation (redox) potential, conductivity, pH, and turbidity were monitored and recorded on field forms in average intervals of 5 minutes.

The groundwater field parameters were measured with a YSI Model 556 MPS-10 multi-parameter unit equipped with a flow-through cell, and a Hanna Turbidity Meter Model HI98703. All equipment was calibrated prior to use in the field. The goal was to obtain three consecutive readings of the field parameters within the following ranges:

- ± 1.0 degree centigrade ($^{\circ}\text{C}$) for temperature
- ± 10 percent (%) or ± 0.3 milligrams per liter (mg/L) for DO (whichever is greater)
- ± 10 millivolts (mV) for redox potential
- $\pm 3\%$ for conductivity
- ± 0.1 for pH
- $\pm 10\%$ or ± 2 nephelometric turbidity units (NTUs) for turbidity (whichever is greater)

The final stabilized readings prior to sample collection for each of the monitoring wells are provided in Table 1.

Groundwater purged from several monitoring wells, particularly those wells sampled with the bladder pump, were initially turbid but cleared with low-flow purging.

Groundwater from OW-21 and OW-22, installed into the closed municipal landfill, was odorous. Samples were shipped on ice to TestAmerica Laboratories, North Canton, Ohio on June 11 and June 12, 2014.

3.0 Groundwater Results

This section describes the results of the June 2014 sampling event and presents a discussion of site-wide groundwater conditions.

3.1 Groundwater Elevations

The groundwater elevations for this sampling round are presented in Table 2. Associated groundwater elevation contours are shown in Figure 3.

The groundwater elevations in the wells were on the average 1.09 feet lower than observed in February 2013, but similar to ranges seen in June 2007, July 2008, and July 2010. OW-9 and nearby OW-10R dry when measured in June 2014. The direction of groundwater flow toward the southeast and Gold Creek and gradient were about the same. The gradient from OW-15 southwest of the former lagoons to OW-22 in the closed landfill was 0.12 in June 2014. From OW-22 to OW-18, near Gold Creek, the gradient was extremely flat, 0.0003. The steeper gradient on the western side of the site is due to the depth to bedrock along the valley wall. As the depth to bedrock increases towards the valley floor, the thickness of the alluvial fill increases and the groundwater gradient flattens.

3.2 Summary of Groundwater Quality Results

VOCs detected in groundwater analysis in the June 2014 sampling event are presented in Table 3. Laboratory analytical reports, including marked Form Is from the data validation process, are included in Appendix A in hard copy. An electronic copy of the entire data package is also provided. Historical data of detected organic compounds have been combined with the most recent data and are presented in Table B-1 in Appendix B. In tables and discussion, the qualifier "J" with a reported concentration means an estimated result, with the analyses positively identified but the numerical value an approximate concentration. The qualifier "U" means that the analysis was not detected above the reported quantitation limit.

A variety of monitored natural attenuation (MNA) field and laboratory parameters were analyzed in groundwater (Table 4). These parameters are general indicators of geochemical conditions conducive to degradation of chlorinated and other VOCs. Patterns of MNA indicators by area were discussed in detail in the *Supporting Documentation for Five-Year Review* (Cardinal Resources, March 2005), along with an evaluation of how

those patterns may relate to contaminant distribution within the groundwater plume. Fourteen VOCs were detected in various wells during this sampling event, four of which were detected only in concentrations greater than the method detection limit but below the reporting limit (trans-1,2-dichloroethene; 1,2-dichlorobenzene; dichlorodifluoromethane; methylene chloride; and xylenes). Five of the VOCs (benzene; chlorobenzene; cis-1,2-dichloroethene; tetrachloroethene; trichloroethene) exceeded regulatory limits. Regulatory exceedances of VOCs in groundwater are reported in Table 5 and plotted in Figure 4.

VOC concentrations in monitoring wells in June 2014 were generally comparable to the 2013 results, and within ranges previously observed. In the remainder of this section, specific groundwater trends and conditions are discussed in greater detail, including:

- Concentration trends for chlorinated VOCs
- Concentration trends for benzene
- Achievement of regulatory limits in monitoring wells
- MNA trends

3.3 Trends for Chlorinated VOCs

The chlorinated VOCs 1,2-dichloroethene, trichloroethene, and tetrachloroethene, are the predominant constituents on the eastern side of the site in OW-2, OW-5, and OW-6 (Figure 4), and are detected in other locations in concentrations below regulatory limits.

Compared to OW-2, OW-5, and OW-6, groundwater on the western side (OW-13R, OW-18, OW-19, OW-21, OW-22) is typically higher in methane and total organic carbon (TOC), has lower redox (is more reduced), and is more amenable to reductive dechlorination. In these wells, chlorinated VOCs in general showed a downward trend over time once OU-1 actions were complete. For example, while the concentration of chlorinated VOCs was higher in OW-13/OW-13R in 1999-2000 compared to OW-5 (Figure 5), favorable geochemical conditions resulted in a rapid and smooth decline. Chlorinated VOCs have not exceeded criteria at OW-13/13R since 2004. In OW-5, conditions for degradation have been somewhat less favorable and the decline has been slower and more variable (Figure 5). However, since 2007, only 1,2-dichloroethene has occasionally exceeded criteria in OW-5.

In OW-2 and OW-6, the rate of decline in chlorinated VOC concentrations has been slowed by unfavorable geochemical conditions. Concentrations appeared to peak in the

years following OU-1 actions, and since 2006 concentrations have been flat to gradually declining (Figure 6).

Chlorobenzene is another compound that has exceeded the New York State Standard or Guidance Value (NYSDEC SGV) of 5 ug/L (but not the federal Maximum Contaminant Level [MCL] of 100 ug/L) in groundwater, in OW-18, OW-19, and OW-22. Chlorobenzene has occasionally exceeded the SGV in OW-10R also (dry in June 2014 and not sampled). The suspected main source of chlorobenzene in groundwater is the historic closed municipal landfill located between OW-10R to the northwest and OW-18 and OW-19 to the south (Figure 4). OW-22 is midway in between OW-10R and the downgradient monitoring wells. The closed landfill is suspected as the source because of the consistently higher concentrations within or downgradient of the landfill compared to upgradient concentrations, as shown below:

Monitoring Well	Chlorobenzene Average ug/L 2008-2014
OW-10R	3.0*
OW-18	10.5
OW-19	10.8
OW-22	8.7

*2008-2013 average for OW-10R

3.4 Benzene Concentration Trends

As was described in detail in the *Supporting Documentation for Five-Year Review* (Cardinal Resources, 2005), different VOCs have predominated in different areas downgradient of the former lagoons. Benzene has predominated in several monitoring wells in the southwestern areas of the Site, with historically the highest concentrations observed in MW-4, OW-10R, and OW-13R. In June 2014, the highest benzene concentration was measured in groundwater at OW-13R/OW-13R DUP, at 9.8/10 micrograms per liter (ug/L), compared to the (MCL) of 5 ug/L; the MCL was exceeded in this monitoring well only. Benzene was below the MCL of 5 ug/L in June 2014 in MW-4, OW-18, OW-19, OW-21, and OW-22, although not below the SGV of 1 ug/L.

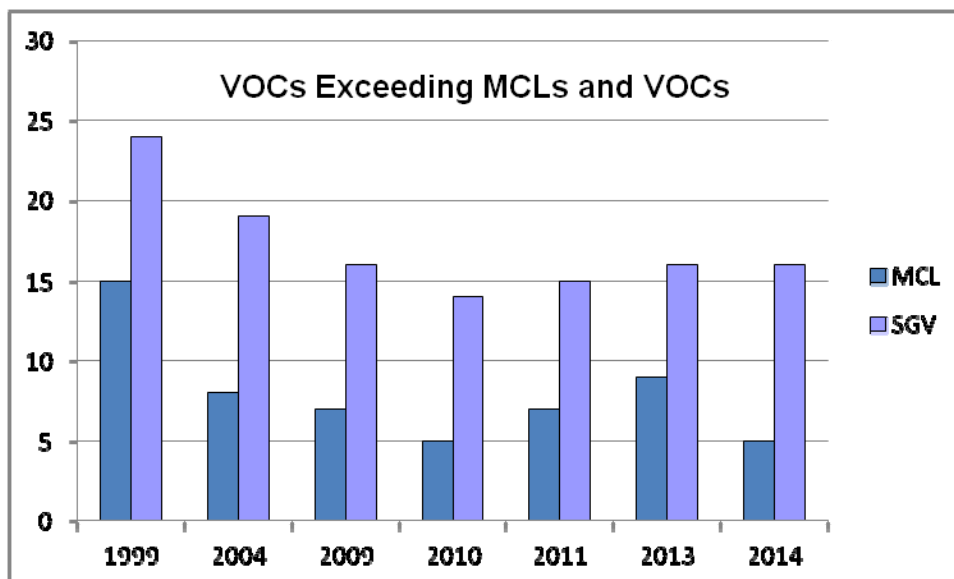
Benzene has exhibited an overall downward trend in OW-13R and OW-22, individual wells with historically high concentrations, as shown in Figure 7. There has also been a

flattening and mass decline of the benzene plume along the groundwater flow path, illustrated in Figure 8. This depiction shows how the benzene concentration in 2000 declined from several hundred ug/L in OW-13/13R, downgradient of the source area, to 10 ug/L in 2014. The decline in the benzene concentration in the former source area reflects both degradation and dispersion of benzene within the plume to the south and west toward OW-22. Figure 9 depicts benzene concentrations in groundwater in June 2014.

3.5 Achievement of MCLs and SGVs

Since completion of OU-1 remediation in 1999, some of the MCLs and state groundwater SGVs had been met in groundwater wells downgradient of the former lagoons. Table 5 summarizes these findings through the current sampling round. Wells consistently monitored from 1999 through 2014 are shown in this table for comparison purposes so that the same wells are compared each time. OW-10R is not included in Table 5 for 2014 because it could not be sampled (dry). In 2014, 5 MCLs were exceeded within the monitoring network, and 16 SGVs were exceeded.

From 1999 through 2009 there was a substantial reduction in MCL and SGV exceedances; since 2009, conditions have remained about the same:



3.6 Monitored Natural Attenuation Trends

A variety of MNA field and laboratory parameters have been analyzed over time in groundwater (Table 4). These parameters are general indicators of geochemical conditions conducive to degradation of chlorinated and other VOCs. Patterns of MNA indicators by area were discussed in the *Supporting Documentation for Five-Year Review* (Cardinal Resources, 2005), along with an evaluation of how those patterns may relate to contaminant distribution within the groundwater plume. The patterns seen in June 2014 are consistent with the observations presented previously, with the areas predicted to be most amenable to degradation in monitoring wells to the south and west (OW-18, OW-19, OW-21, OW-22). In these wells,

- Methane concentrations of 50 ug/L or greater were observed;
- Relatively high TOC, 2 mg/L or greater, was found; and
- Low DO and/or redox potential indicating reduced conditions were found.

Table 6 illustrates the variability of conditions conducive to, or indicative of, natural attenuation of chlorinated VOCs in selected monitoring wells across the site. This weighting and scoring table is adapted from the U.S. EPA's technical protocol for natural attenuation of chlorinated aliphatic hydrocarbons (U.S. EPA, 1997). It shows higher scores for OW-13R and OW-18, located close to the former lagoons on the western side of the Site, and low scores for OW-2 and OW-5, on the eastern side of the site.

4.0 Data Quality Review

Data quality review was performed on the analytical data package to assure that quality and usability requirements were met.

4.1 Introduction

A Tier II data quality review of the sample data package was completed using U.S. EPA guidelines. The Tier II data evaluation consisted of a review of data package completeness and a quality control (QC) review, as summarized in the QC forms provided by the laboratory, covering:

- Signed transmittal page
- Data package narrative
- Sample transmittal documentation
- Standard VOC QC forms for:
 - System monitoring compound (surrogate recovery)
 - Matrix spike/matrix spike duplicate (MS/MSD) recovery
 - Laboratory check samples
 - Method blank summary
 - Instrument performance check
 - Internal standard summary and retention time (RT) summary
 - Initial calibration data
 - Continuing calibration data
- Form Is and raw data for field samples, blanks, laboratory control samples, MS/MSDs
- Copies of logbook pages documenting sample preparation, extract transfer, instruments, and sample tracking
- Holding times
- Form Is and raw data for field and QC samples
- Field duplicates and field, trip, and decontamination blanks.

Checklists documenting the review of laboratory sample delivery group (SDG) are provided in Appendix C.

4.2 Results of Data Review

The hand-marked, qualified Form Is are provided in Appendix A with the laboratory reports. Results in Tables 3, 4, 7, B-1, B-2, and B-3 reflect the qualified data. The data qualifiers are:

- U - The analyses were analyzed for, but were not detected above the reported sample quantitation limit.
- J - The analyses were positively identified; the associated numerical value is the approximate concentration of the analyses in the sample. For inorganic analyses only (Table 4), the qualifiers J- (estimated low), and J+ (estimated high) are also used.
- UJ - The analyses were not detected above the reported quantitation limit, but the reported quantitation limit is approximate. The qualifier was not applied to data for this sampling round.

The data package was complete and appropriately organized, and all relevant supporting information was provided.

4.2.1 Field QC Samples

The field QC samples for VOC analyses were one groundwater duplicate (OW-13R); one MS/MSD pair (OW-5 MS/MSD); one decontamination blank for the pump (pump rinsate); two field blanks; and two trip blanks. A field blank was collected for each of the two sampling days, and a trip blank was included with each of the two sample shipments.

4.2.2 Data Quality and Usability

Although there were some qualifications as estimated or nondetectable values that resulted from the data quality review process, the analytical results are usable and of acceptable quality; no results have been rejected.

The qualifications were:

- For VOCs, tetrachloroethene was detected at a concentration below the reporting limit but above the method detection limit in one laboratory method blank. Tetrachloroethene was detected below the reporting limit in sample MW-4, and the result was qualified as 1.0U, not detectable at the sample quantitation limit of 1.0 ug/L.

- For VOCs, methylene chloride and acetone were detected in Trip Blank 1, Field Blank 1, Field Blank 2, and Pump Rinsate. These are common laboratory artifacts which are not constituents of concern for this site. Acetone was not detected in any field samples, so no qualifications were made. Methylene chloride was detected in concentrations below the reporting limit in OW-6, OW-13R, OW-18, and OW-DUP. These results were qualified as 5.0U, not detectable at the sample quantitation limit of 5.0 ug/L.
- For inorganics, positive results for nitrate were qualified as J-, estimated low, for OW-2 and OW-5, because samples were received with less than one 8-hour shift remaining on holding time, and thus were analyzed past 48 hours. OW-2 and OW-5 sulfate results were qualified as J+ for estimated high, due to high MS/MSD recoveries.

5.0 Summary and Conclusions

The results of the 2014 sampling program for the Carroll and Dubies Site show:

- Groundwater elevations were lower on average by 1.09 feet, compared to the February 2013 groundwater elevations, but typical of June and July in previous years. The purpose of sampling every fifth quarter beginning in 2013 was to get an up-to-date look at conditions throughout the hydrologic cycle. For the past three sampling rounds (fourth quarter 2011, first quarter 2013, second quarter 2014) the concentrations of VOCs in groundwater do not appear to be particularly affected by the season.
- Some of the monitoring wells continue to exceed MCLs and SGVs. Benzene, a VOC of primary concern, exceeded the MCL of 5 ug/L in one monitoring well only during this sampling round, in OW-13R, with a concentration of 10 ug/L. The benzene SGV of 1 ug/L was exceeded in an additional five monitoring wells in June 2014.
- In the first five to ten years following the OU1 removal of lagoon wastes and contaminated soil conducted in 1999, VOC concentrations in most monitoring wells substantially declined. Since that time, concentration trends in general have been slowly declining to stable.

In reviewing the groundwater contaminant concentration trends over the past five years, the many years of monitoring results demonstrate that natural attenuation is continuing to degrade VOCs, and the rate of degradation is slowing as the concentrations decline. This is the expected result, as the declining contaminant concentrations reduce the driving force for the attenuation processes. The results further demonstrate that Site conditions are stabilizing. In addition, as the rate of attenuation continues to slow, it may be years before MCLs and SGVs are met in all monitoring wells throughout the plume, but Site conditions will continue to be stable.

The OU2 groundwater remediation ROD, written in 1996, stated that natural attenuation of organic contaminants should achieve treatment of groundwater “to below federal drinking water and state groundwater standards through naturally occurring removal processes” and that “groundwater modeling estimated that contaminants would attenuate to these standards within five years of completion of the remedy selected for the lagoons.” The pre-1996 modeling results referenced in the OU2 ROD have not proven out, however, much more is known about natural attenuation trends and benefits than 15 to 20 years ago.

By the next Five-Year Review in 2015, we anticipate ending the monitoring program at the Site, in essence, to reach No Further Action status. With stable to declining groundwater concentrations and institutional controls in place, conditions will continue to be protective of human health and the environment, with no exposure pathways that could result in unacceptable risks. In the event that any action is necessary to address this modification, an Explanation of Significant Differences or other appropriate mechanism would be available.

8.0 References

Cardinal Resources LLC, April 2013, *February 2013 Sampling Report, Carroll and Dubies Superfund Site, Town of Deerpark, Orange County, New York*, Prepared for Kolmar Laboratories, Inc. and Wickhen Products, Inc.

Cardinal Resources LLC, January 2012, *October 2011 Sampling Report, Carroll and Dubies Superfund Site, Town of Deerpark, Orange County, New York*, Prepared for Kolmar Laboratories, Inc. and Wickhen Products, Inc.

Cardinal Resources LLC, September 2010, *July 2010 Sampling Report, Carroll and Dubies Superfund Site, Town of Deerpark, Orange County, New York*, Prepared for Kolmar Laboratories, Inc. and Wickhen Products, Inc.

Cardinal Resources LLC, January 2007, *November 2006 Sampling Report, Carroll and Dubies Superfund Site, Town of Deerpark, Orange County, New York*.

Cardinal Resources LLC, November 2006, *August 2006 Sampling Report, Carroll and Dubies Superfund Site, Town of Deerpark, Orange County, New York*.

Cardinal Resources LLC, July 2006, *May 2006 Sampling Report, Carroll and Dubies Superfund Site, Town of Deerpark, Orange County, New York*.

Cardinal Resources LLC, April 2006, *February 2006 Sampling Report, Carroll and Dubies Superfund Site, Town of Deerpark, Orange County, New York*.

Cardinal Resources, Inc., August 2005, *Supplemental Sampling Work Plan, Carroll and Dubies Superfund Site*, Prepared for Kolmar Laboratories, Inc. and Wickhen Products, Inc.

Cardinal Resources, Inc., March 2005, *Supporting Documentation for Five-Year Review, Carroll and Dubies Superfund Site*, Prepared for Kolmar Laboratories, Inc. and Wickhen Products, Inc.

New York State Department of Environmental Conservation (NYSDEC), Division of Water, November 2004, *Technical & Operational Guidance Series (TOGS) 5.1.9, In-Water and Riparian Management of Sediment and Dredge Material*, Bureau of Water Assessment and Management, Albany, New York.

National Oceanic and Atmospheric Administration (NOAA), November 2008, *Screening Quick Reference Tables (SQuiRTs)*, Assessment and Restoration Division (ARD), Office of Response and Restoration.

United States Environmental Protection Agency, 2005, *Five-Year Review Report, Carroll and Dubies Superfund Site, Town of Deerpark, Orange County, New York*, Prepared by U.S. EPA Region 2, New York, New York.

United States Environmental Protection Agency, 1997, Proceedings of the Symposium on Natural Attenuation of Chlorinated Organics in Groundwater, EPA/540/R-97/504, Office of Research and Development, Washington, DC.

Tables

Table 1
Groundwater Field Stabilization Parameters
June 2014
Carroll and Dubies Superfund Site
Town of Deerpark, Orange County, New York

Well ID	Date	Temperature (°C)	Dissolved Oxygen (mg/L)	Redox (mV)	Conductivity (uS/cm)	pH (standard units)	Turbidity (NTUs)
MW-4	06/11/14	10.52	0.87	-19.6	264	5.95	0.36
OW-2	06/11/14	10.66	6.76	24.7	94	5.29	0.11
OW-5	06/11/14	10.86	0.97	52.7	216	5.79	0.14
OW-6	06/11/14	10.84	9.86	166.9	71	5.56	0.40
OW-13R	06/11/14	11.28	0.51	-71.4	499	6.55	227
OW-18	06/11/14	10.84	0.47	50.7	435	5.18	50.7
OW-19	06/11/14	10.60	0.48	-2.5	354	5.81	3.71
OW-21	06/10/14	13.01	0.61	6.9	370	6.08	0.16
OW-22	06/10/14	12.31	1.20	-20.3	432	5.77	0.28

Notes:

mg/L = milligrams per liter

mV = milliVolts

uS/cm = microSiemens per centimeter

NTU = nephelometric turbidity units

Table 2
Groundwater Elevation Data⁽¹⁾
June 10, 2014
Carroll and Dubies Superfund Site
Town of Deerpark, Orange County, New York

Well No.	Top of Casing Elevation or Staff Gauge ⁽²⁾	Screened Interval	Depth to Groundwater or Surface Water	Groundwater or Surface Water Elevation
MW-1	469.39	28.5 - 43.5	Not Measured	Not Measured
MW-4	470.13	35.3 - 50.3	Not Measured	Not Measured
OW-2	472.33	30.0 - 47.0	41.24	431.09
OW-3	472.70	30.0 - 46.5	41.82	430.88
OW-4	473.33	26.5 - 27.5	35.90	437.43
OW-5	459.85	25.5 - 45.5	28.79	431.06
OW-6	464.40	31.4 - 51.4	33.36	431.04
OW-8	464.63	34.6 - 54.6	33.46	431.17
OW-9	472.91	25.3 - 35.3	Dry	Dry
OW-10R	469.27	29.0 - 39.0	Dry	Dry
OW-13R	457.69	25.0 - 35.0	26.80	430.89
OW-15	472.05	22.0 - 32.0	12.43	459.62
OW-16	453.90	18.0 - 28.0	23.43	430.47
OW-17	447.18	11.0 - 21.0	16.62	430.56
OW-18	444.57	11.0 - 21.0	14.17	430.40
OW-19	438.69	5.0 - 15.0	8.82	429.87
OW-21	467.46	37.1 - 47.1	37.19	430.27
OW-22	467.10	38.0 - 48.0	36.77	430.33
OW-23	444.73	29.0 - 39.0	14.49	430.24
OW-24	446.77	14.4 - 24.4	15.42	431.35
OW-25	452.47	20.0 - 30.0	21.78	430.69
SW-1	432.01	-	Not Measured	Not Measured
SW-2	432.01	-	Not Measured	Not Measured
SW-3	437.44	-	Not Measured	Not Measured

Notes:

⁽¹⁾Data reported in feet; elevations relative - mean sea level; 1988 National Geodetic Vertical Datum.

⁽²⁾Top of casing and gauge staff elevations surveyed by Maser Consulting P.A.

MW-1 could not be located.

SW-1, SW-2 and SW-3 surface water elevations were not measured because staff gauges were missing.

Table 3
Summary of Detected TCL Volatile Organic Compounds in Groundwater (ug/L) - June 2014
Carroll and Dubies Superfund Site
Town of Deerpark, Orange County, New York

Compound	NYSDEC SGV	U.S. EPA MCL	MW-4 06/11/14	OW-2 06/11/14	OW-5 06/11/14	OW-6 06/11/14	OW-13R 06/11/14	OW-13R DUP 06/11/14
Benzene	1 (S)	5	1.2	1.0U	0.32 J	1.0U	9.8	10
Carbon disulfide	5 (S)*	NE	1.0U	1.0U	1.0U	2.0	1.0U	1.0U
Chlorobenzene	5 (S)*	100	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U
Cis-1,2-Dichloroethene	5 (S)*	70	1.0U	54	10	17	0.47 J	0.47 J
Trans-1,2-Dichloroethene	5 (S)*	100	1.0U	0.38 J	1.0U	1.0U	1.0U	1.0U
1,2-Dichlorobenzene	3 (S)	600	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U
1,4-Dichlorobenzene	3 (S)	75	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U
Dichlorodifluoromethane	5 (S)*	NE	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U
Methylene Chloride	5 (S)	5	5.0U	5.0U	5.0U	5.0U**	5.0U**	5.0U**
Tetrachloroethene	5 (S)*	5	1.0U**	94	4.0	62	1.0U	1.0U
Toluene	5 (S)	1,000	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U
Trichloroethene	5 (S)*	5	1.0U	11	1.5	10	0.22 J	0.24 J
Vinyl Chloride	2 (S)	2	1.0U	1.0U	1.0U	1.0U	0.80 J	0.97 J
Xylenes, Total	50 (S)	10,000	2.0U	2.0U	2.0U	2.0U	2.0U	2.0U

Compound	NYSDEC SGV	U.S. EPA MCL	OW-18 06/11/14	OW-19 06/11/14	OW-21 06/10/14	OW-22 06/10/14
Benzene	1 (S)	5	3.2	1.4	1.8	3.5
Carbon disulfide	5 (S)*	NE	1.0U	1.0U	0.98 J	1.0U
Chlorobenzene	5 (S)*	100	16	12	1.0U	5.9
Cis-1,2-Dichloroethene	5 (S)*	70	0.32 J	1.5	0.27 J	0.41 J
Trans-1,2-Dichloroethene	5 (S)*	100	1.0U	1.0U	1.0U	1.0U
1,2-Dichlorobenzene	3 (S)	600	1.0U	0.19 J	1.0U	0.39 J
1,4-Dichlorobenzene	3 (S)	75	1.1	1.1	1.0U	0.91 J
Dichlorodifluoromethane	5 (S)*	NE	1.0U	0.91 J	1.0U	0.24 J
Methylene Chloride	5 (S)	5	5.0U**	5.0U	5.0U	5.0U
Tetrachloroethene	5 (S)*	5	1.0U	1.0U	1.0U	1.0U
Toluene	5 (S)	1,000	0.29 J	1.0U	1.0U	1.0U
Trichloroethene	5 (S)*	5	1.0U	1.0U	1.0U	1.0U
Vinyl Chloride	2 (S)	2	1.0U	1.5	0.78 J	0.37 J
Xylenes, Total	50 (S)	10,000	2.0U	2.0U	2.0U	0.39 J

Notes:

TCL = Target Compound List

NYSDEC SGV = New York State Department of Environmental Conservation Standards (S) and Guidance Values (GV) for groundwater

U.S. EPA MCL = United States Environmental Protection Agency Maximum Contaminant Level for drinking/groundwater

U = The analyte was analyzed for, but was not detected above the reported quantitation limit

**Tetrachloroethene in MW-4 and methylene chloride in OW-6, OW-13R and 13R-DUP, and OW-18 were qualified as not detected at the reporting limit through the data validation process.

* = The principal organic contaminant (POC) standard for groundwater of 5 ug/L applies to this substance

NE = Not established; no criteria specified

Table 4
Natural Attenuation Parameters - June 2014
Carroll and Dubies Superfund Site
Town of Deerpark, Orange County, New York

Well ID	Date	Alkalinity (mg/L)	Chloride (mg/L)	Dissolved Oxygen (mg/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	Nitrate as N (mg/L)	Redox (millivolts)	Sulfate (mg/L)	Sulfide (mg/L)	TOC (mg/L)
MW-4	06/11/14	94	25	0.87	ND	ND	37	ND	-19.6	48	ND	1.2
OW-2	06/11/14	40	1.8	6.76	ND	ND	ND	2.1J-	24.7	16J+	ND	ND
OW-5	06/11/14	94	11	0.97	ND	ND	3.0	ND	52.7	48J+	ND	ND
OW-6	06/11/14	35	1.1	9.86	ND	ND	ND	0.55J-	166.9	22	ND	ND
OW-13R	06/11/14	350	4.0	0.51	0.69	ND	1,300	ND	-71.4	25	ND	3.9
OW-13R Dup	06/11/14	340	3.8	0.51	0.69	ND	1,300	ND	-71.4	24	ND	3.6
OW-18	06/11/14	270	10	0.47	ND	ND	880	ND	50.7	7.9	ND	12
OW-19	06/11/14	200	21	0.48	0.25 J	ND	1,000	ND	-2.5	15	ND	6.9
OW-21	06/10/14	210	7.6	0.61	ND	ND	85	ND	6.9	26	ND	2.4
OW-22	06/10/14	260	9.6	1.20	ND	ND	1,400	ND	-20.3	9.1	ND	7.1

Notes:

mg/L = milligrams per liter

ug/L = micrograms per liter

TOC = total organic carbon

ND = not detected

J- = Estimated low, based on data quality review

J+ = Estimated high, based on data quality review

Table 5
MCL and SGV Exceedances - 1999, 2004, and 2006 through 2014
Carroll and Dubies Superfund Site
Town of Deerpark, Orange County, New York

Well	Compound	MCL ug/L	SGV ug/L	1999		2004		Feb-06		Jun-07		Jul-08		Jul-09		Jul-10		Oct-11		Feb-13		Jun-14	
				MCL	SGV	MCL	SGV	MCL	SGV	MCL	SGV	MCL	SGV	MCL	SGV	MCL	SGV	MCL	SGV	MCL	SGV	MCL	SGV
MW-4	Benzene	5	1	X	X		X		X	X	X		X		X		X		X		X		X
	Total 1,2-Dichloroethene	70	5		X																		
OW-2	Benzene	5	1				X																
	Tetrachloroethene (PCE)	5	5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Trichloroethene (TCE)	5	5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Total 1,2-Dichloroethene	70	5	X	X	X	X	X	X		X		X		X		X	X	X	X	X		X
OW-5	Tetrachloroethene (PCE)	5	5	X	X	X	X																
	Trichloroethene (TCE)	5	5	X	X																		
	Total 1,2-Dichloroethene	70	5		X		X		X		X		X										X
OW-6	Tetrachloroethene (PCE)	5	5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Trichloroethene (TCE)	5	5			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Total 1,2-Dichloroethene	70	5		X		X		X		X		X		X		X		X		X		X

Table 5
MCL and SGV Exceedances - 1999, 2004, and 2006 through 2014
Carroll and Dubies Superfund Site
Town of Deerpark, Orange County, New York

Well	Compound	MCL ug/L	SGV ug/L	1999		2004		Feb-06		Jun-07		Jul-08		Jul-09		Jul-10		Oct-11		Feb-13		Jun-14	
				MCL	SGV	MCL	SGV	MCL	SGV	MCL	SGV	MCL	SGV	MCL	SGV	MCL	SGV	MCL	SGV	MCL	SGV	MCL	SGV
OW-13 / OW-13R ⁽²⁾	Benzene	5	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X
	Total 1,2-Dichloroethene	70	5		X																		
	Methylene chloride	5	5	X	X																		
	Toluene	1,000	5		X																		
	Vinyl chloride	2	2	X	X	X	X																
OW-18	Benzene	5	1		X		X	X	X		X		X		X		X		X		X		X
	Chlorobenzene	100	5				X		X		X		X		X		X		X		X		X
	Xylenes (total)	10,000	5						X														
OW-19	Benzene	5	1	X	X		X		X		X		X		X		X		X	X	X		X
	Chlorobenzene	100	5		X		X		X		X		X		X		X		X		X		X
	Chloroethane	NA	5		X																		
	Vinyl chloride	2	2	X	X			X	X					X	X			X	X	X	X		
OW-21	Benzene	5	1	X	X		X		X		X		X		X		X		X		X		X
OW-22	Benzene	5	1	X	X		X	X	X		X		X	X	X		X	X	X	X	X		X
	Chlorobenzene	100	5		X		X		X						X			X		X		X	
	Vinyl chloride	2	2	X	X																		
Total				15	24	8	19	9	18	6	15	5	15	7	16	5	14	7	15	9	16	5	16

Notes:

⁽¹⁾OW-10 was replaced with OW-10R in 2000. OW-10 was abandoned because it was within the OU1 construction area.

⁽²⁾OW-13R was installed in February 2006 to replace OW-13.

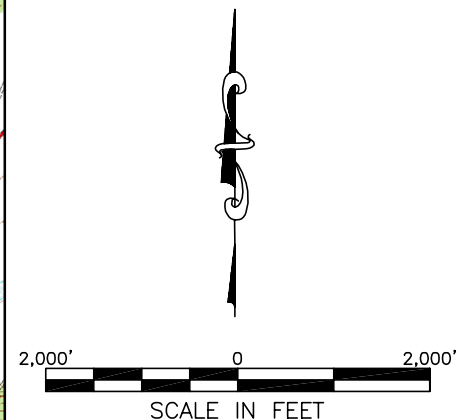
Table 6
Weighting and Scoring of Natural Attenuation Parameters
June 2014
Carroll and Dubies Superfund Site
Town of Deerpark, Orange County, New York

Analyte	Concentration Indicating Conditions for Reductive Dechlorination	Ranking Value	OW-2	OW-5	OW-13R	OW-19
Dissolved Oxygen	<0.5 mg/L	3	-	-	-	3
Dissolved Oxygen	>1 mg/L	-3	-3	-	-	-
Nitrate	<1 mg/L	2	-	2	2	2
Sulfate	<20 mg/L	2	2	-	-	2
Oxidation Reduction Potential (ORP)	<50 mV	1	1	-	1	1
	<-100 mV	2	-	-	-	-
Temperature	>20°C	1	-	-	-	-
Total Organic Carbon	>20 mg/L	1	-	-	-	-
Alkalinity	>2x background (MW-1 ⁽¹⁾)	1	-	-	1	-
Chloride	>2x background (MW-1 ⁽¹⁾)	2	-	2	-	2
BTEX	>0.1 mg/L	2	-	-	-	-
1,2-Dichloroethene	Detected	2	2	2	2	2
Vinyl Chloride	Detected	2	-	-	2	2
Chloroethane	Detected	2	-	-	-	-
1,1-Dichloroethene	Detected	2	-	-	-	-
1,1-Dichloroethane	Detected	2	-	-	-	-
Methane	Detected	2	-	2	2	2
Ethane	Detected	2	-	-	2	2
Ethene	Detected	2	-	-	-	-
Total Score			2	8	12	18

Source: U.S. EPA, 1997.

⁽¹⁾ Compare to 2007-2011 average of 105 mg/L for alkalinity and 3.2 mg/L for chloride for MW-1.

Figures



LEGEND:

--- APPROXIMATE
SITE BOUNDARY

SOURCE:
USGS TOPOGRAPHIC QUADRANGLE MAP
PORT JERVIS NORTH, NEW YORK, DATED 1991.



**CARROLL AND DUBIES SUPERFUND SITE
TOWN OF DEER PARK, ORANGE COUNTY, NEW YORK**

105-0035

FIGURE 1

SITE LOCATION MAP

1									
0	ECM								
NO	DRWN	DATE	REVISION		CHKD	DATE	APPVD	DATE	

CADD FILE	9005	SCALE	AS NOTED	CURRENT DATE	03-07-2005
DRAWING NO.	105-0035-0300-01			REVISION	0

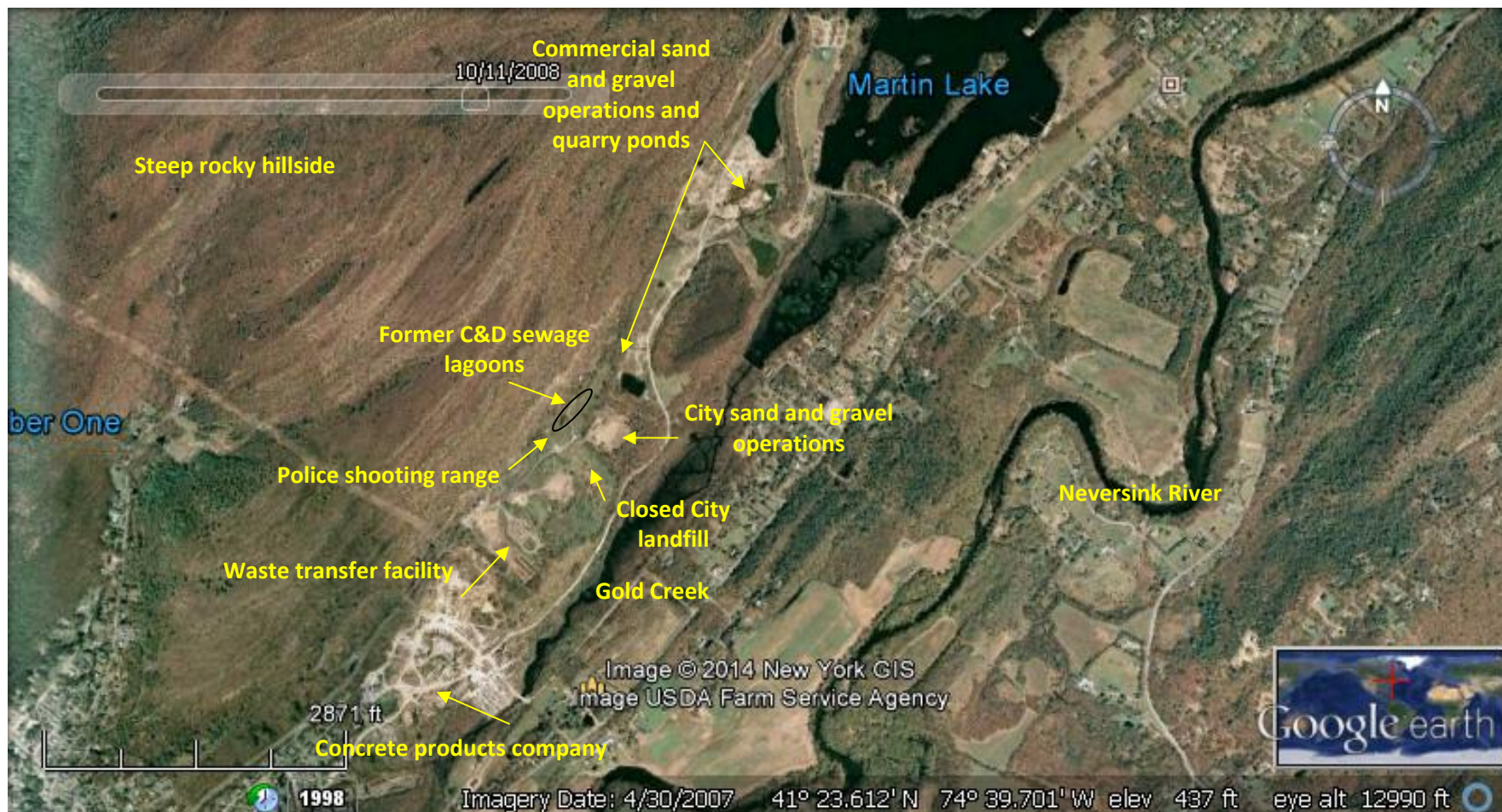
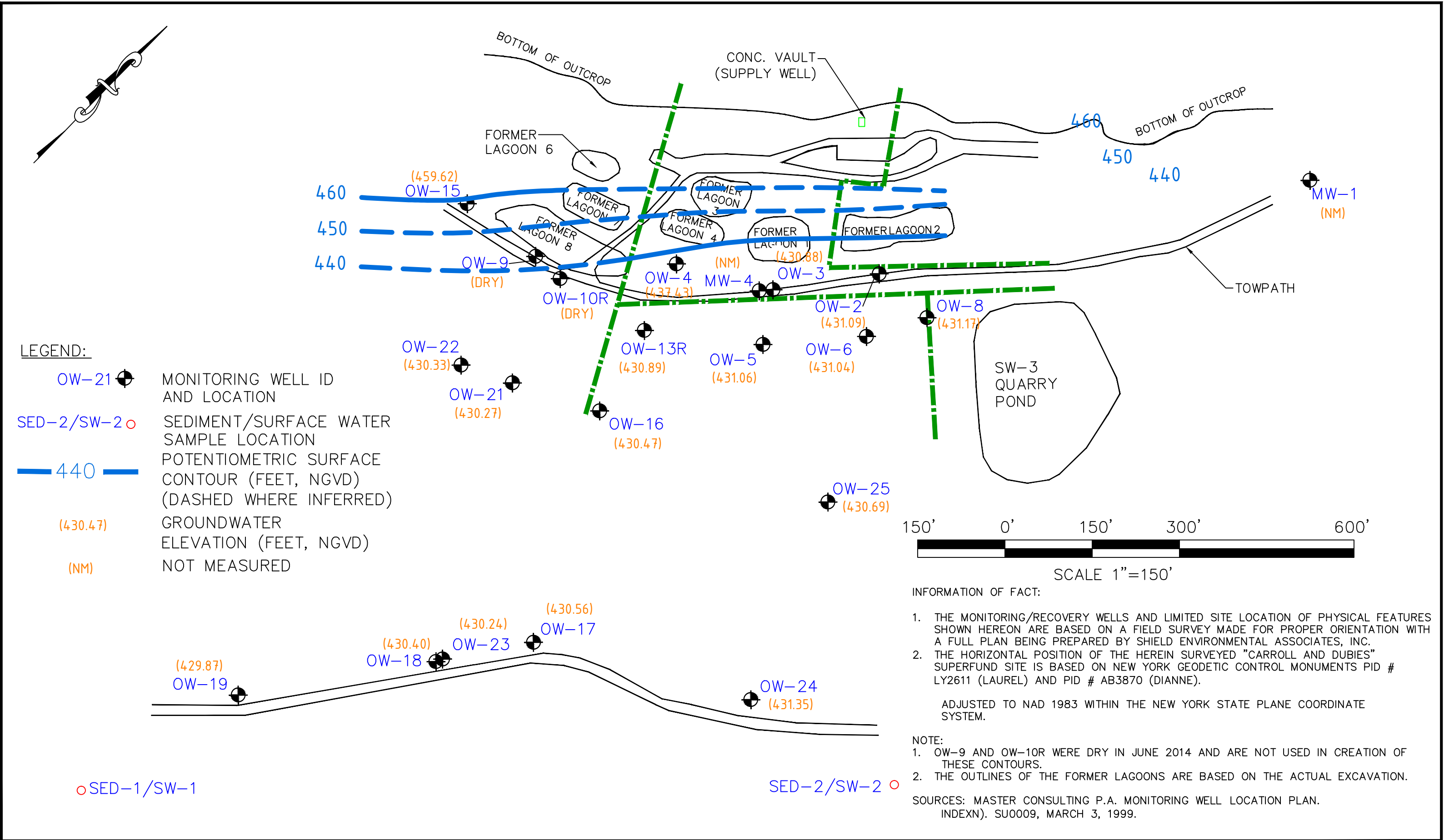
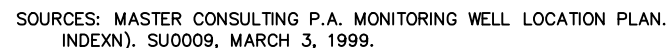


Figure 2
Land and Resource Use
Carroll and Dubies Superfund Site
Town of Deerpark, Orange County, New York



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ALL CONCENTRATIONS ug/L
RED VALUES EXCEED SGV OR MCL



JUNE 2014

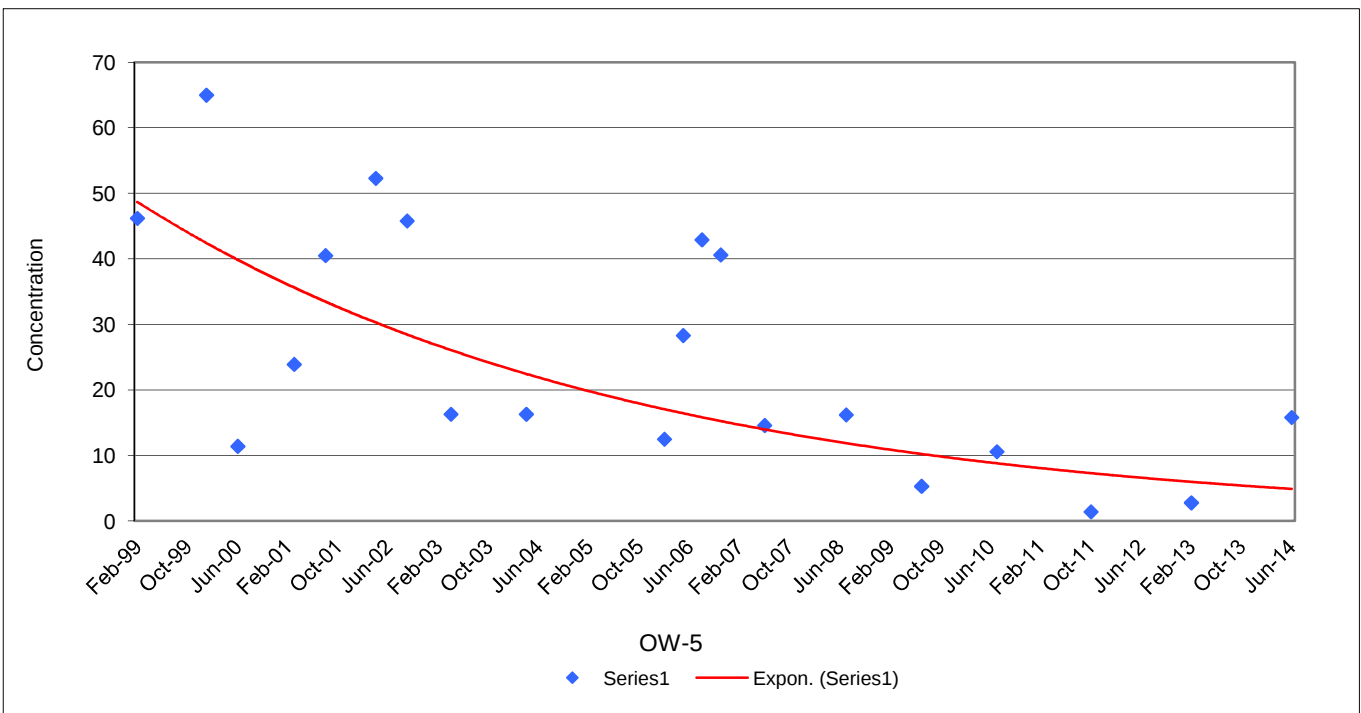
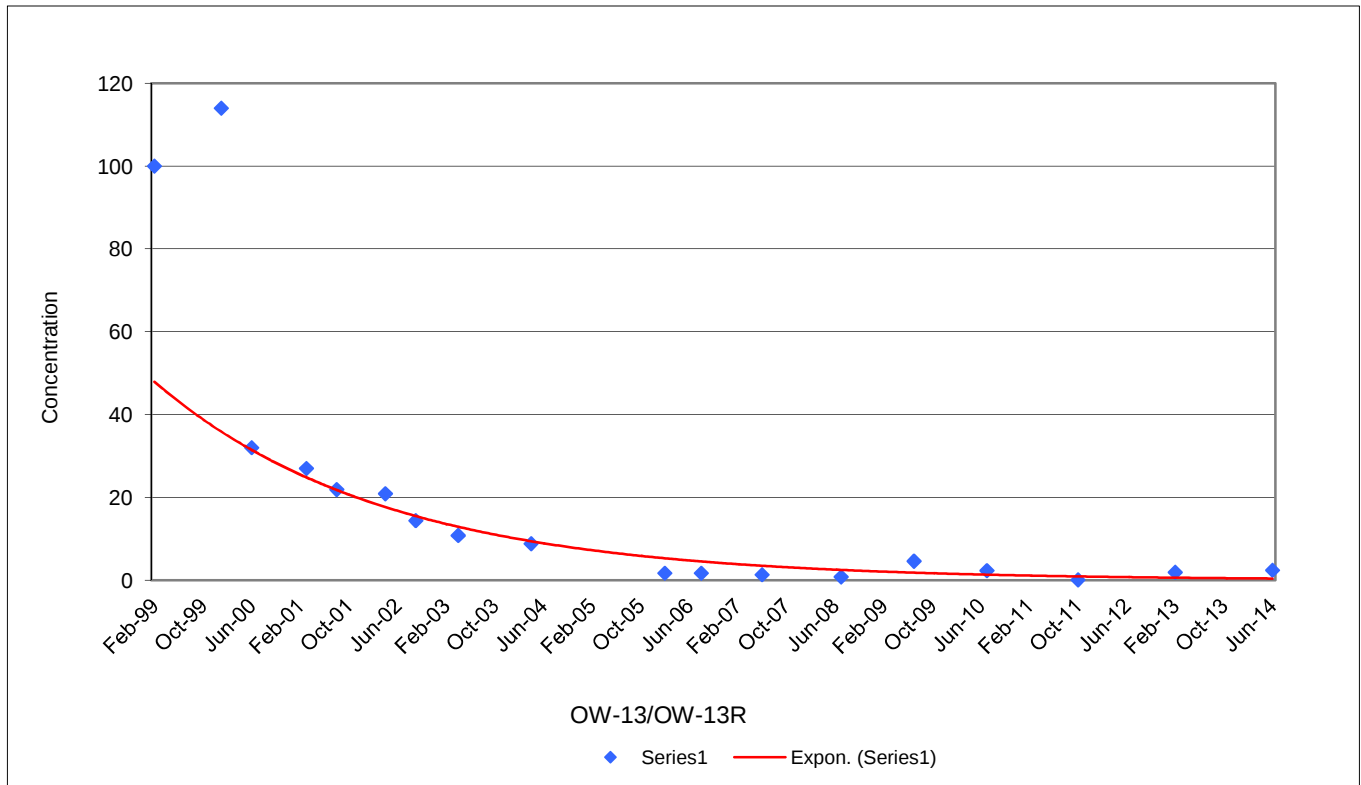
104-0012

REVISION



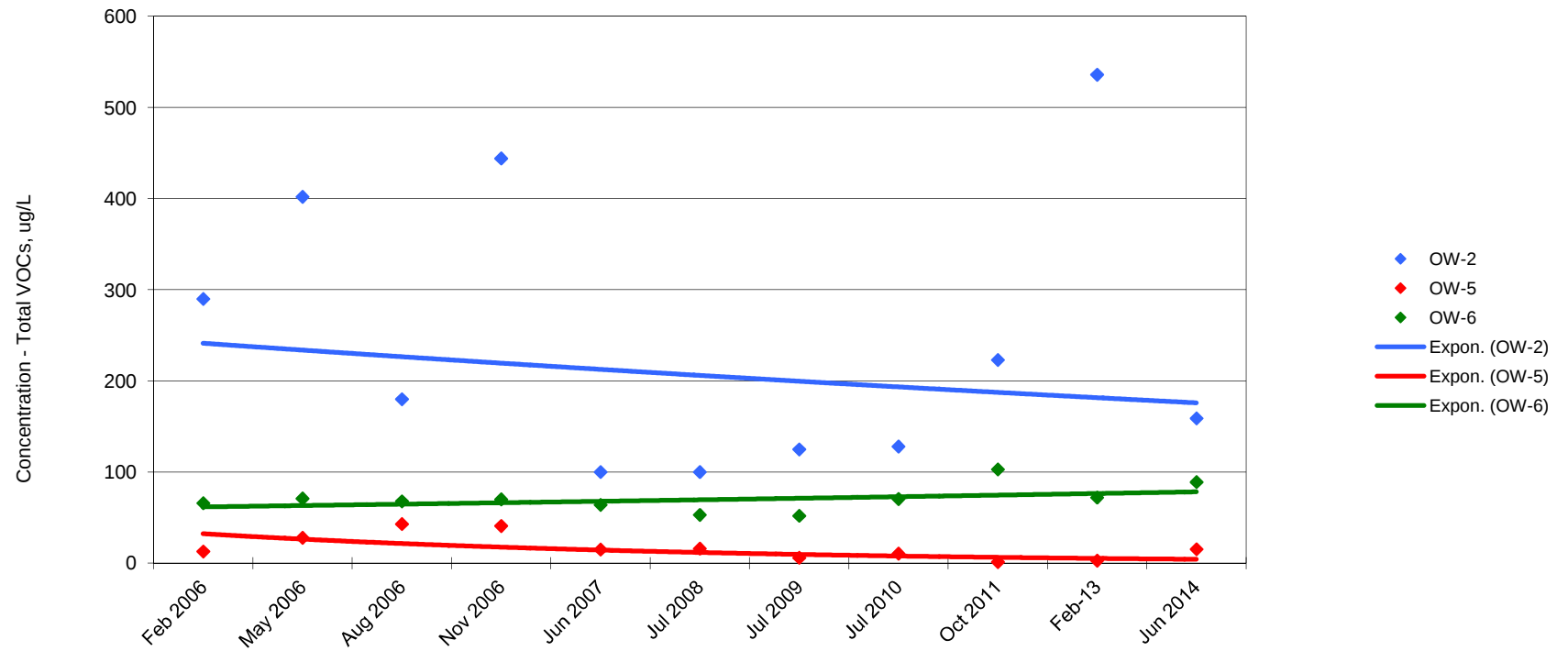
CARDINAL

Figure 5
Chlorinated VOC⁽¹⁾ Trends in OW-13/13R and OW-5
Pre-Excavation to June 2014



⁽¹⁾Sum of vinyl chloride, 1,2-dichloroethene, trichloroethene, and tetrachloroethene.

Figure 6
Chlorinated VOC⁽¹⁾ Trends in OW-2, OW-5, and OW-6
2006 - 2014



⁽¹⁾Sum of vinyl chloride, 1,2-dichloroethene, trichloroethene, and tetrachloroethene

Figure 7
Benzene Concentration Trends in OW-13/OW-13R and OW-22
Pre-Excavation to June 2014

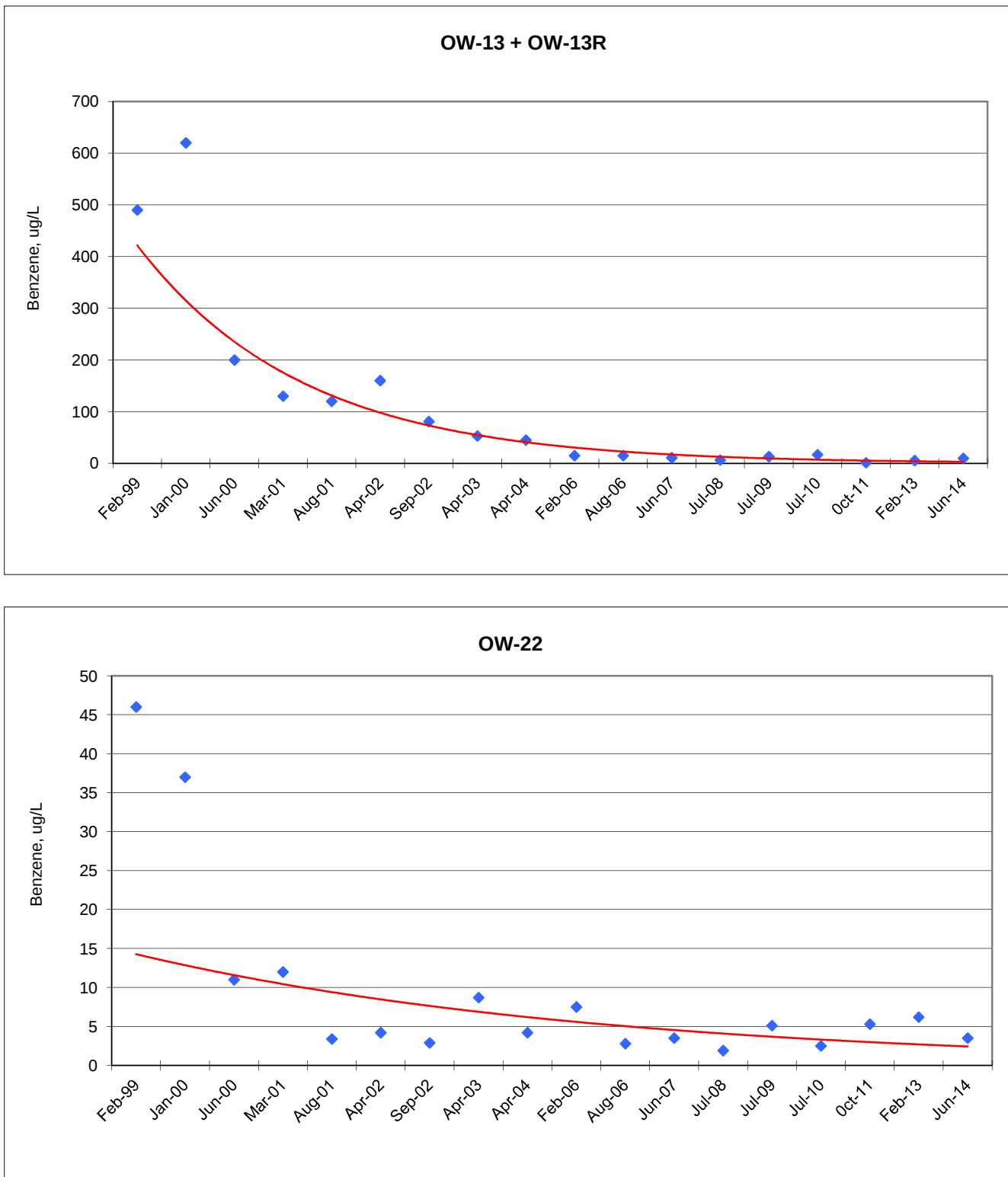
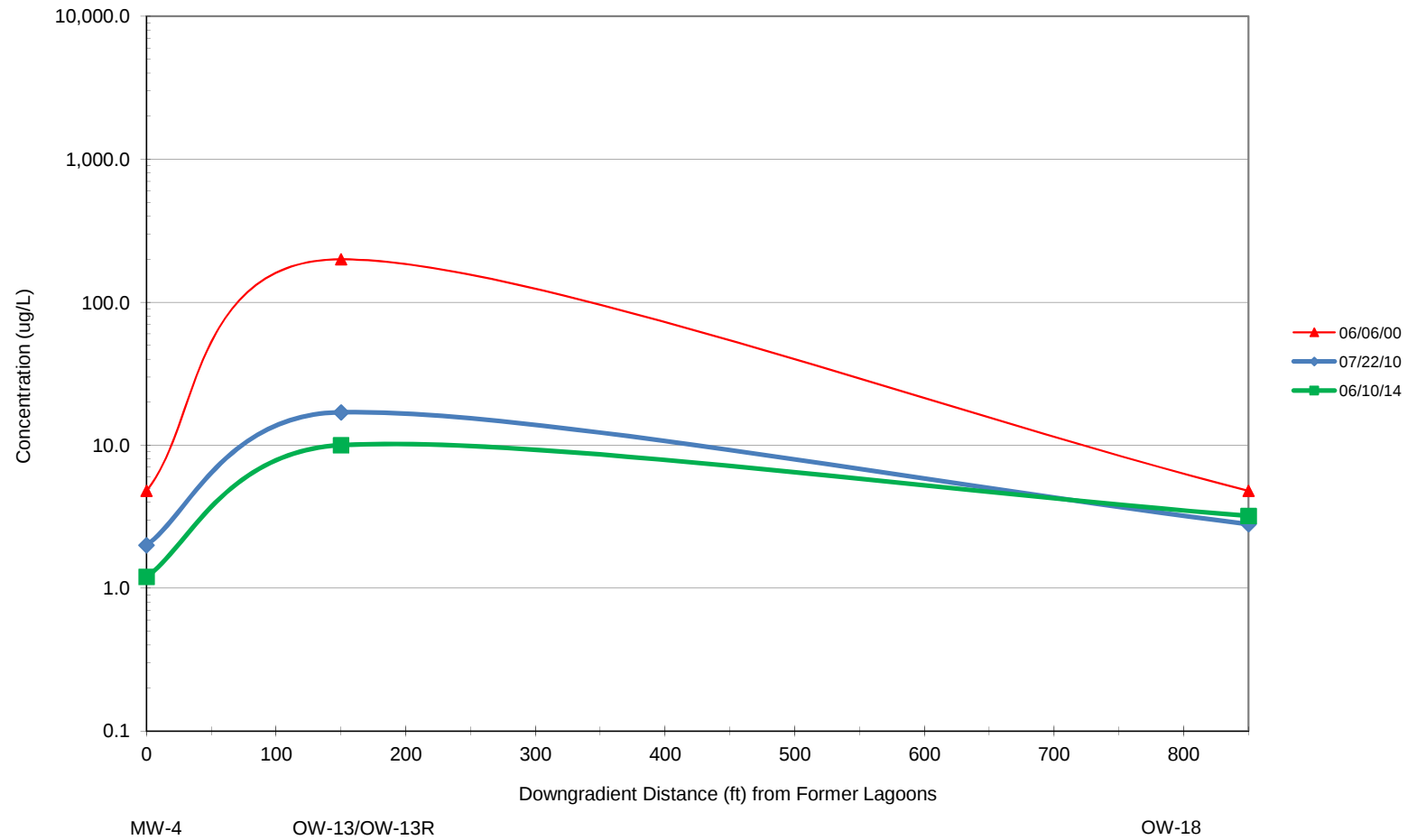
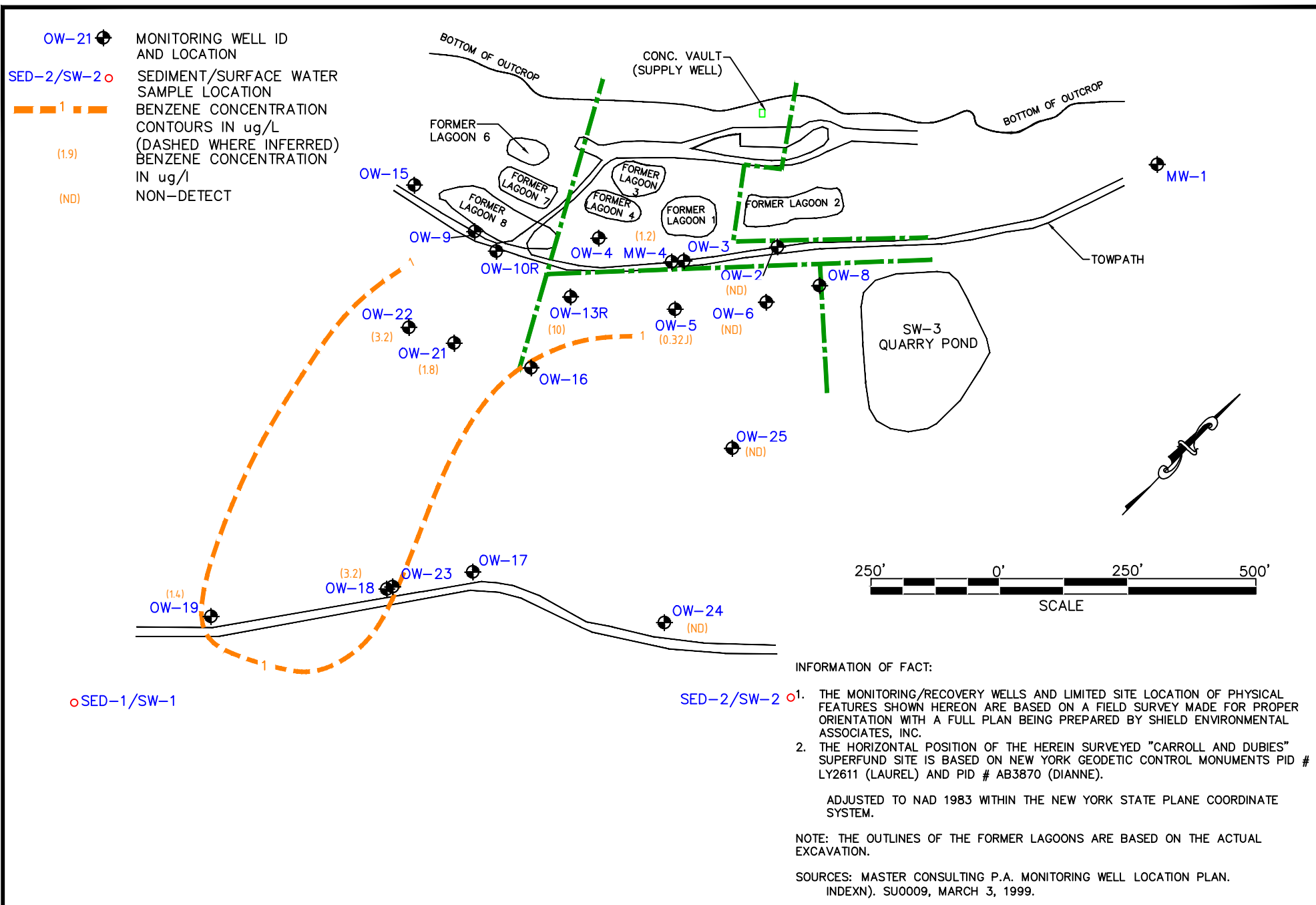


Figure 8
Benzene Concentration Trends Based on Distance from Source



C:\Projects\104-0012\June 14\Figure 8 - Benzene with Distance



CARROLL AND DUBIES SUPERFUND SITE
TOWN OF DEER PARK, ORANGE COUNTY, NEW YORK

104-0012

FIGURE 9
BENZENE CONCENTRATIONS
IN GROUNDWATER

JUNE 2014

CARDINAL

CURRENT DATE 07-02-2014

LK

DRAWING NO. 104-0012-0300-09 JUNE 14

SCALE

AS NOTED

REVISION

Appendix A
Laboratory Reports with Marked Form Is
From Data Review

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Canton

4101 Shuffel Street NW

North Canton, OH 44720

Tel: (330)497-9396

TestAmerica Job ID: 240-38459-1

Client Project/Site: Carroll & Dubles Superfund

For:

Monroeville, PA

PO BOX D

East Pittsburgh, Pennsylvania 15112

Attn: Barbara Jones



Authorized for release by:

6/30/2014 1:25:19 PM

Nathan Pietras, Project Manager II

(330)966-8296

nathan.pietras@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.testamericainc.com

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

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

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QC Association Summary 69

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Receipt Checklists 90



Definitions/Glossary

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Qualifiers

GC/MS VOA

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

GC VOA

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

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
B	Compound was found in the blank and sample.
F1	MS and/or MSD Recovery exceeds the control limits
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Case Narrative

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Job ID: 240-38459-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: Cardinal Resources

Project: Carroll & Dubles Superfund

Report Number: 240-38459-1

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. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The 8260B Volatile Organic Compounds analysis was performed at the TestAmerica Nashville laboratory.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

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.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 6/12/2014 9:30 AM and 6/13/2014 9:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 3.8° C, 4.2° C and 4.4° C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples OW-22 (240-38459-1), TRIP BLANK 2 (240-38499-1), OW-21 (240-38459-2), OW-6 (240-38499-2), TRIP BLANK 1 (240-38459-3), OW-2 (240-38499-3), FIELD BLANK 1 (240-38459-4), FIELD BLANK 2 (240-38499-4), OW-18 (240-38459-5), MW-4 (240-38499-5), PUMP BLANK (240-38459-6), GW-DUP (240-38499-6), OW-19 (240-38459-7), OW-13R (240-38499-7) and OW-5 (240-38459-8) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 06/18/2014, 06/19/2014 and 06/20/2014.

Tetrachloroethene was detected in method blank MB 490-170597/7 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Method(s) 8260B: The following sample ran from a vial containing headspace: TRIP BLANK 1 (240-38459-3). All vials were received with headspace.

Case Narrative

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Job ID: 240-38459-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

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

DISSOLVED GASES

Samples OW-22 (240-38459-1), OW-21 (240-38459-2), OW-6 (240-38499-2), OW-2 (240-38499-3), OW-18 (240-38459-5), MW-4 (240-38499-5), GW-DUP (240-38499-6), OW-19 (240-38459-7), OW-13R (240-38499-7) and OW-5 (240-38459-8) were analyzed for dissolved gases in accordance with RSK_175. The samples were analyzed on 06/20/2014 and 06/21/2014.

Sample OW-22 (240-38499-1)[3X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

ANIONS

Samples OW-22 (240-38459-1), OW-21 (240-38459-2), OW-6 (240-38499-2), OW-2 (240-38499-3), OW-18 (240-38459-5), MW-4 (240-38499-5), GW-DUP (240-38499-6), OW-19 (240-38459-7), OW-13R (240-38499-7) and OW-5 (240-38459-8) were analyzed for anions in accordance with EPA Method 300.0. The samples were analyzed on 06/12/2014 and 06/13/2014.

Method(s) 300.0: The following samples were received with less than 2 days remaining on the holding time or less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: OW-21 (240-38459-2), OW-22 (240-38459-1), GW-DUP (240-38499-6), MW-4 (240-38499-5), OW-13R (240-38499-7), OW-2 (240-38499-3) and OW-6 (240-38499-2).

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

ALKALINITY

Samples OW-22 (240-38459-1), OW-21 (240-38459-2), OW-6 (240-38499-2), OW-2 (240-38499-3), OW-18 (240-38459-5), MW-4 (240-38499-5), GW-DUP (240-38499-6), OW-19 (240-38459-7), OW-13R (240-38499-7) and OW-5 (240-38459-8) were analyzed for alkalinity in accordance with EPA Method 310.1. The samples were analyzed on 06/13/2014, 06/16/2014 and 06/19/2014.

Alkalinity was detected in method blank MB 240-135574/5 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

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

CHLORIDE

Samples OW-22 (240-38459-1), OW-21 (240-38459-2), OW-6 (240-38499-2), OW-2 (240-38499-3), OW-18 (240-38459-5), MW-4 (240-38499-5), GW-DUP (240-38499-6), OW-19 (240-38459-7), OW-13R (240-38499-7) and OW-5 (240-38459-8) were analyzed for chloride in accordance with EPA Method 325.2. The samples were analyzed on 06/13/2014 and 06/20/2014.

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

SULFATE

Samples OW-22 (240-38459-1), OW-21 (240-38459-2), OW-6 (240-38499-2), OW-2 (240-38499-3), OW-18 (240-38459-5), MW-4 (240-38499-5), GW-DUP (240-38499-6), OW-19 (240-38459-7), OW-13R (240-38499-7) and OW-5 (240-38459-8) were analyzed for sulfate in accordance with EPA method 375.4. The samples were analyzed on 06/19/2014 and 06/23/2014.

Sulfate was detected in method blank MB 240-135408/19 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Sulfate failed the recovery criteria high for the MS of sample OW-5MS (240-38459-8) in batch 240-135408.

Sulfate exceeded the RPD limit for the MSD of sample OW-5MSD (240-38459-8) in batch 240-135408.

Sulfate failed the recovery criteria high for the MSD of sample OW-2MSD (240-38499-3) in batch 240-135780. Sulfate exceeded the RPD

Case Narrative

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Job ID: 240-38459-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

limit.

Samples MW-4 (240-38499-5)[5X] and OW-5 (240-38499-8)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

SULFIDE

Samples OW-22 (240-38459-1), OW-21 (240-38459-2), OW-6 (240-38499-2), OW-2 (240-38499-3), OW-18 (240-38459-5), MW-4 (240-38499-5), GW-DUP (240-38499-6), OW-19 (240-38459-7), OW-13R (240-38499-7) and OW-5 (240-38459-8) were analyzed for sulfide in accordance with EPA Method 376.1. The samples were analyzed on 06/13/2014 and 06/17/2014.

Method(s) 376.1, SM 4500 S2 E: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 134999. GW-DUP (240-38499-6), MW-4 (240-38499-5), OW-13R (240-38499-7), OW-2 (240-38499-3), and OW-6 (240-38499-2)

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

TOTAL ORGANIC CARBON

Samples OW-22 (240-38459-1), OW-21 (240-38459-2), OW-6 (240-38499-2), OW-2 (240-38499-3), OW-18 (240-38459-5), MW-4 (240-38499-5), GW-DUP (240-38499-6), OW-19 (240-38459-7), OW-13R (240-38499-7) and OW-5 (240-38459-8) were analyzed for total organic carbon in accordance with EPA Method 415.1. The samples were analyzed on 06/13/2014 and 06/16/2014.

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

Method Summary

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL NSH
RSK-175	Dissolved Gases (GC)	RSK	TAL CAN
300.0	Anions, Ion Chromatography	MCAWW	TAL CAN
310.1	Alkalinity	MCAWW	TAL CAN
325.2	Chloride	MCAWW	TAL CAN
375.4	Sulfate	MCAWW	TAL CAN
376.1	Sulfide	MCAWW	TAL CAN
415.1	TOC	MCAWW	TAL CAN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

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

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

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

Sample Summary

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-38459-1	OW-22	Water	06/10/14 04:40	06/12/14 09:30
240-38459-2	OW-21	Water	06/10/14 05:40	06/12/14 09:30
240-38459-3	TRIP BLANK 1	Water	06/10/14 05:30	06/12/14 09:30
240-38459-4	FIELD BLANK 1	Water	06/10/14 05:35	06/12/14 09:30
240-38459-5	OW-18	Water	06/11/14 09:30	06/12/14 09:30
240-38459-6	PUMP BLANK	Water	06/11/14 09:50	06/12/14 09:30
240-38459-7	OW-19	Water	06/11/14 11:00	06/12/14 09:30
240-38459-8	OW-5	Water	06/11/14 12:15	06/12/14 09:30
240-38499-1	TRIP BLANK 2	Water	06/11/14 14:20	06/13/14 09:20
240-38499-2	OW-6	Water	06/11/14 14:50	06/13/14 09:20
240-38499-3	OW-2	Water	06/11/14 16:00	06/13/14 09:20
240-38499-4	FIELD BLANK 2	Water	06/11/14 16:45	06/13/14 09:20
240-38499-5	MW-4	Water	06/11/14 16:50	06/13/14 09:20
240-38499-6	GW-DUP	Water	06/11/14 19:00	06/13/14 09:20
240-38499-7	OW-13R	Water	06/11/14 18:25	06/13/14 09:20

Detection Summary

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Client Sample ID: OW-22

Lab Sample ID: 240-38459-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
1,2-Dichlorobenzene	0.39	J	1.0	0.19	ug/L	1			8260B	Total/NA
1,4-Dichlorobenzene	0.91	J	1.0	0.17	ug/L	1			8260B	Total/NA
Benzene	3.5		1.0	0.20	ug/L	1			8260B	Total/NA
Chlorobenzene	5.9		1.0	0.18	ug/L	1			8260B	Total/NA
cis-1,2-Dichloroethene	0.41	J	1.0	0.21	ug/L	1			8260B	Total/NA
Dichlorodifluoromethane	0.24	J	1.0	0.17	ug/L	1			8260B	Total/NA
Vinyl chloride	0.37	J	1.0	0.18	ug/L	1			8260B	Total/NA
Xylenes, Total	0.39	J	2.0	0.38	ug/L	1			8260B	Total/NA
Methane	1400		1.5	0.21	ug/L	3			RSK-175	Total/NA
Alkalinity	260		5.0		mg/L	1			310.1	Total/NA
Chloride	9.6		1.0		mg/L	1			325.2	Total/NA
Sulfate	9.1	B	5.0	1.8	mg/L	1			375.4	Total/NA
Total Organic Carbon	7.1		1.0		mg/L	1			415.1	Total/NA

Client Sample ID: OW-21

Lab Sample ID: 240-38459-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Benzene	1.8		1.0	0.20	ug/L	1			8260B	Total/NA
Carbon disulfide	0.98	J	1.0	0.22	ug/L	1			8260B	Total/NA
cis-1,2-Dichloroethene	0.27	J	1.0	0.21	ug/L	1			8260B	Total/NA
Vinyl chloride	0.78	J	1.0	0.18	ug/L	1			8260B	Total/NA
Methane	85		0.50	0.070	ug/L	1			RSK-175	Total/NA
Alkalinity	210		5.0		mg/L	1			310.1	Total/NA
Chloride	7.6		1.0		mg/L	1			325.2	Total/NA
Sulfate	26		5.0	1.8	mg/L	1			375.4	Total/NA
Total Organic Carbon	2.4		1.0		mg/L	1			415.1	Total/NA

Client Sample ID: TRIP BLANK 1

Lab Sample ID: 240-38459-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Methylene Chloride	0.69	J	5.0	0.22	ug/L	1			8260B	Total/NA

Client Sample ID: FIELD BLANK 1

Lab Sample ID: 240-38459-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Methylene Chloride	6.6		5.0	0.22	ug/L	1			8260B	Total/NA

Client Sample ID: OW-18

Lab Sample ID: 240-38459-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
1,4-Dichlorobenzene	1.1		1.0	0.17	ug/L	1			8260B	Total/NA
Benzene	3.2		1.0	0.20	ug/L	1			8260B	Total/NA
Chlorobenzene	16		1.0	0.18	ug/L	1			8260B	Total/NA
cis-1,2-Dichloroethene	0.32	J	1.0	0.21	ug/L	1			8260B	Total/NA
Methylene Chloride	0.25	J	5.0	0.22	ug/L	1			8260B	Total/NA
Toluene	0.29	J	1.0	0.17	ug/L	1			8260B	Total/NA
Methane	880		0.50	0.070	ug/L	1			RSK-175	Total/NA
Alkalinity	270	B	5.0	1.9	mg/L	1			310.1	Total/NA
Chloride	10		1.0		mg/L	1			325.2	Total/NA
Sulfate	7.9	B	5.0	1.8	mg/L	1			375.4	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

Detection Summary

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Client Sample ID: OW-18 (Continued)

Lab Sample ID: 240-38459-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Organic Carbon	12		1.0		mg/L	1		415.1	Total/NA

Client Sample ID: PUMP BLANK

Lab Sample ID: 240-38459-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	3.0	J	25	2.7	ug/L	1		8260B	Total/NA
Methylene Chloride	5.9		5.0	0.22	ug/L	1		8260B	Total/NA

Client Sample ID: OW-19

Lab Sample ID: 240-38459-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichlorobenzene	0.19	J	1.0	0.19	ug/L	1		8260B	Total/NA
1,4-Dichlorobenzene	1.1		1.0	0.17	ug/L	1		8260B	Total/NA
Benzene	1.4		1.0	0.20	ug/L	1		8260B	Total/NA
Chlorobenzene	12		1.0	0.18	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	1.5		1.0	0.21	ug/L	1		8260B	Total/NA
Dichlorodifluoromethane	0.91	J	1.0	0.17	ug/L	1		8260B	Total/NA
Vinyl chloride	1.5		1.0	0.18	ug/L	1		8260B	Total/NA
Methane	1000		0.50	0.070	ug/L	1		RSK-175	Total/NA
Ethane	0.25	J	0.50	0.19	ug/L	1		RSK-175	Total/NA
Alkalinity	200	B	5.0	1.9	mg/L	1		310.1	Total/NA
Chloride	21		1.0		mg/L	1		325.2	Total/NA
Sulfate	15	B	5.0	1.8	mg/L	1		375.4	Total/NA
Total Organic Carbon	6.9		1.0		mg/L	1		415.1	Total/NA

Client Sample ID: OW-5

Lab Sample ID: 240-38459-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.32	J	1.0	0.20	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	10		1.0	0.21	ug/L	1		8260B	Total/NA
Tetrachloroethene	4.0		1.0	0.14	ug/L	1		8260B	Total/NA
Trichloroethene	1.5		1.0	0.20	ug/L	1		8260B	Total/NA
Methane	3.0		0.50	0.070	ug/L	1		RSK-175	Total/NA
Alkalinity	94	B	5.0	1.9	mg/L	1		310.1	Total/NA
Chloride	11		1.0		mg/L	1		325.2	Total/NA
Sulfate	48	B	25	9.0	mg/L	5		375.4	Total/NA

Client Sample ID: TRIP BLANK 2

Lab Sample ID: 240-38499-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	0.78	J	5.0	0.22	ug/L	1		8260B	Total/NA

Client Sample ID: OW-6

Lab Sample ID: 240-38499-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon disulfide	2.0		1.0	0.22	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	17		1.0	0.21	ug/L	1		8260B	Total/NA
Methylene Chloride	0.30	J	5.0	0.22	ug/L	1		8260B	Total/NA
Tetrachloroethene	62		1.0	0.14	ug/L	1		8260B	Total/NA
Trichloroethene	10		1.0	0.20	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

Detection Summary

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Client Sample ID: OW-6 (Continued)

Lab Sample ID: 240-38499-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	0.55	H	0.10		mg/L	1		300.0	Total/NA
Alkalinity	35	B	5.0	1.9	mg/L	1		310.1	Total/NA
Chloride	1.1		1.0	0.40	mg/L	1		325.2	Total/NA
Sulfate	22		5.0	1.8	mg/L	1		375.4	Total/NA

Client Sample ID: OW-2

Lab Sample ID: 240-38499-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	54		1.0	0.21	ug/L	1		8260B	Total/NA
Tetrachloroethene	94		1.0	0.14	ug/L	1		8260B	Total/NA
trans-1,2-Dichloroethene	0.38	J	1.0	0.23	ug/L	1		8260B	Total/NA
Trichloroethene	11		1.0	0.20	ug/L	1		8260B	Total/NA
Nitrate as N	2.1	H	0.10		mg/L	1		300.0	Total/NA
Alkalinity	40	B	5.0	1.9	mg/L	1		310.1	Total/NA
Chloride	1.8		1.0	0.40	mg/L	1		325.2	Total/NA
Sulfate	16		5.0	1.8	mg/L	1		375.4	Total/NA

Client Sample ID: FIELD BLANK 2

Lab Sample ID: 240-38499-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	4.3	J	25	2.7	ug/L	1		8260B	Total/NA
Methylene Chloride	4.5	J	5.0	0.22	ug/L	1		8260B	Total/NA

Client Sample ID: MW-4

Lab Sample ID: 240-38499-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.2		1.0	0.20	ug/L	1		8260B	Total/NA
Tetrachloroethene	0.33	J	1.0	0.14	ug/L	1		8260B	Total/NA
Methane	37		0.50	0.070	ug/L	1		RSK-175	Total/NA
Alkalinity	94	B	5.0	1.9	mg/L	1		310.1	Total/NA
Chloride	25		1.0	0.40	mg/L	1		325.2	Total/NA
Sulfate	48		25	9.0	mg/L	5		375.4	Total/NA
Total Organic Carbon	1.2		1.0		mg/L	1		415.1	Total/NA

Client Sample ID: GW-DUP

Lab Sample ID: 240-38499-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	10		1.0	0.20	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	0.47	J	1.0	0.21	ug/L	1		8260B	Total/NA
Methylene Chloride	0.68	J	5.0	0.22	ug/L	1		8260B	Total/NA
Trichloroethene	0.24	J	1.0	0.20	ug/L	1		8260B	Total/NA
Vinyl chloride	0.97	J	1.0	0.18	ug/L	1		8260B	Total/NA
Methane	1300		0.50	0.070	ug/L	1		RSK-175	Total/NA
Ethane	0.69		0.50	0.19	ug/L	1		RSK-175	Total/NA
Alkalinity	340	B	5.0	1.9	mg/L	1		310.1	Total/NA
Chloride	3.8		1.0	0.40	mg/L	1		325.2	Total/NA
Sulfate	24		5.0	1.8	mg/L	1		375.4	Total/NA
Total Organic Carbon	3.6		1.0		mg/L	1		415.1	Total/NA

Client Sample ID: OW-13R

Lab Sample ID: 240-38499-7

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

Detection Summary

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Client Sample ID: OW-13R (Continued)

Lab Sample ID: 240-38499-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	9.8		1.0	0.20	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	0.47	J	1.0	0.21	ug/L	1		8260B	Total/NA
Methylene Chloride	0.43	J	5.0	0.22	ug/L	1		8260B	Total/NA
Trichloroethene	0.22	J	1.0	0.20	ug/L	1		8260B	Total/NA
Vinyl chloride	0.80	J	1.0	0.18	ug/L	1		8260B	Total/NA
Methane	1300		0.50	0.070	ug/L	1		RSK-175	Total/NA
Ethane	0.69		0.50	0.19	ug/L	1		RSK-175	Total/NA
Alkalinity	350	B	5.0	1.9	mg/L	1		310.1	Total/NA
Chloride	4.0		1.0	0.40	mg/L	1		325.2	Total/NA
Sulfate	25		5.0	1.8	mg/L	1		375.4	Total/NA
Total Organic Carbon	3.9		1.0		mg/L	1		415.1	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

Client Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Client Sample ID: OW-22

Date Collected: 06/10/14 04:40

Date Received: 06/12/14 09:30

Lab Sample ID: 240-38459-1

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			06/19/14 03:52	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			06/19/14 03:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.33	ug/L			06/19/14 03:52	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			06/19/14 03:52	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			06/19/14 03:52	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			06/19/14 03:52	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			06/19/14 03:52	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			06/19/14 03:52	1
1,2-Dichlorobenzene	0.39	J	1.0	0.19	ug/L			06/19/14 03:52	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			06/19/14 03:52	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			06/19/14 03:52	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			06/19/14 03:52	1
1,4-Dichlorobenzene	0.91	J	1.0	0.17	ug/L			06/19/14 03:52	1
2-Hexanone	ND		10	1.3	ug/L			06/19/14 03:52	1
Acetone	ND		25	2.7	ug/L			06/19/14 03:52	1
Benzene	3.5		1.0	0.20	ug/L			06/19/14 03:52	1
Bromoform	ND		1.0	0.29	ug/L			06/19/14 03:52	1
Bromomethane	ND		1.0	0.35	ug/L			06/19/14 03:52	1
Carbon disulfide	ND		1.0	0.22	ug/L			06/19/14 03:52	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			06/19/14 03:52	1
Chlorobenzene	5.9		1.0	0.18	ug/L			06/19/14 03:52	1
Chloroethane	ND		1.0	0.36	ug/L			06/19/14 03:52	1
Chloroform	ND		1.0	0.23	ug/L			06/19/14 03:52	1
Chloromethane	ND		1.0	0.36	ug/L			06/19/14 03:52	1
cis-1,2-Dichloroethene	0.41	J	1.0	0.21	ug/L			06/19/14 03:52	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			06/19/14 03:52	1
Cyclohexane	ND		5.0	0.22	ug/L			06/19/14 03:52	1
Dichlorobromomethane	ND		1.0	0.17	ug/L			06/19/14 03:52	1
Dichlorodifluoromethane	0.24	J	1.0	0.17	ug/L			06/19/14 03:52	1
Ethylbenzene	ND		1.0	0.19	ug/L			06/19/14 03:52	1
Ethylene Dibromide	ND		1.0	0.21	ug/L			06/19/14 03:52	1
Isopropylbenzene	ND		1.0	0.33	ug/L			06/19/14 03:52	1
Methyl acetate	ND		10	0.72	ug/L			06/19/14 03:52	1
2-Butanone (MEK)	ND		50	2.6	ug/L			06/19/14 03:52	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			06/19/14 03:52	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			06/19/14 03:52	1
Methylene Chloride	ND		5.0	0.22	ug/L			06/19/14 03:52	1
Styrene	ND		1.0	0.28	ug/L			06/19/14 03:52	1
Tetrachloroethene	ND		1.0	0.14	ug/L			06/19/14 03:52	1
Toluene	ND		1.0	0.17	ug/L			06/19/14 03:52	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			06/19/14 03:52	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			06/19/14 03:52	1
Trichloroethene	ND		1.0	0.20	ug/L			06/19/14 03:52	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			06/19/14 03:52	1
Vinyl chloride	0.37	J	1.0	0.18	ug/L			06/19/14 03:52	1
Xylenes, Total	0.39	J	2.0	0.38	ug/L			06/19/14 03:52	1
Methylcyclohexane	ND		5.0	0.20	ug/L			06/19/14 03:52	1
Chlorodibromomethane	ND		1.0	0.25	ug/L			06/19/14 03:52	1

TestAmerica Canton

Client Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Client Sample ID: OW-22

Date Collected: 06/10/14 04:40

Date Received: 06/12/14 09:30

Lab Sample ID: 240-38459-1

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		70 - 130		06/19/14 03:52	1
4-Bromofluorobenzene (Surr)	91		70 - 130		06/19/14 03:52	1
Toluene-d8 (Surr)	101		70 - 130		06/19/14 03:52	1
Dibromofluoromethane (Surr)	108		70 - 130		06/19/14 03:52	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	1400		1.5	0.21	ug/L			06/21/14 13:32	3
Ethane	ND		1.5	0.57	ug/L			06/21/14 13:32	3
Ethylene	ND		1.5	0.54	ug/L			06/21/14 13:32	3

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1, 1, 1-Trifluoroethane	109		66 - 132		06/21/14 13:32	3

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND	H	0.10		mg/L			06/12/14 22:25	1
Alkalinity	260		5.0		mg/L			06/13/14 16:24	1
Chloride	9.6		1.0		mg/L			06/13/14 08:06	1
Sulfate	9.1	B	5.0	1.8	mg/L			06/19/14 08:46	1
Sulfide	ND		1.0		mg/L			06/13/14 15:19	1
Total Organic Carbon	7.1		1.0		mg/L			06/13/14 10:41	1

TestAmerica Canton

Client Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Client Sample ID: OW-21

Date Collected: 06/10/14 05:40

Date Received: 06/12/14 09:30

Lab Sample ID: 240-38459-2

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			06/19/14 04:21	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			06/19/14 04:21	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.33	ug/L			06/19/14 04:21	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			06/19/14 04:21	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			06/19/14 04:21	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			06/19/14 04:21	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			06/19/14 04:21	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			06/19/14 04:21	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			06/19/14 04:21	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			06/19/14 04:21	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			06/19/14 04:21	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			06/19/14 04:21	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			06/19/14 04:21	1
2-Hexanone	ND		10	1.3	ug/L			06/19/14 04:21	1
Acetone	ND		25	2.7	ug/L			06/19/14 04:21	1
Benzene	1.8		1.0	0.20	ug/L			06/19/14 04:21	1
Bromoform	ND		1.0	0.29	ug/L			06/19/14 04:21	1
Bromomethane	ND		1.0	0.35	ug/L			06/19/14 04:21	1
Carbon disulfide	0.98	J	1.0	0.22	ug/L			06/19/14 04:21	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			06/19/14 04:21	1
Chlorobenzene	ND		1.0	0.18	ug/L			06/19/14 04:21	1
Chloroethane	ND		1.0	0.36	ug/L			06/19/14 04:21	1
Chloroform	ND		1.0	0.23	ug/L			06/19/14 04:21	1
Chloromethane	ND		1.0	0.36	ug/L			06/19/14 04:21	1
cis-1,2-Dichloroethene	0.27	J	1.0	0.21	ug/L			06/19/14 04:21	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			06/19/14 04:21	1
Cyclohexane	ND		5.0	0.22	ug/L			06/19/14 04:21	1
Dichlorobromomethane	ND		1.0	0.17	ug/L			06/19/14 04:21	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			06/19/14 04:21	1
Ethylbenzene	ND		1.0	0.19	ug/L			06/19/14 04:21	1
Ethylene Dibromide	ND		1.0	0.21	ug/L			06/19/14 04:21	1
Isopropylbenzene	ND		1.0	0.33	ug/L			06/19/14 04:21	1
Methyl acetate	ND		10	0.72	ug/L			06/19/14 04:21	1
2-Butanone (MEK)	ND		50	2.6	ug/L			06/19/14 04:21	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			06/19/14 04:21	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			06/19/14 04:21	1
Methylene Chloride	ND		5.0	0.22	ug/L			06/19/14 04:21	1
Styrene	ND		1.0	0.28	ug/L			06/19/14 04:21	1
Tetrachloroethene	ND		1.0	0.14	ug/L			06/19/14 04:21	1
Toluene	ND		1.0	0.17	ug/L			06/19/14 04:21	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			06/19/14 04:21	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			06/19/14 04:21	1
Trichloroethene	ND		1.0	0.20	ug/L			06/19/14 04:21	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			06/19/14 04:21	1
Vinyl chloride	0.78	J	1.0	0.18	ug/L			06/19/14 04:21	1
Xylenes, Total	ND		2.0	0.38	ug/L			06/19/14 04:21	1
Methylcyclohexane	ND		5.0	0.20	ug/L			06/19/14 04:21	1
Chlorodibromomethane	ND		1.0	0.25	ug/L			06/19/14 04:21	1

TestAmerica Canton

Client Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Client Sample ID: OW-21

Date Collected: 06/10/14 05:40

Date Received: 06/12/14 09:30

Lab Sample ID: 240-38459-2

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		70 - 130		06/19/14 04:21	1
4-Bromofluorobenzene (Surr)	93		70 - 130		06/19/14 04:21	1
Toluene-d8 (Surr)	101		70 - 130		06/19/14 04:21	1
Dibromofluoromethane (Surr)	104		70 - 130		06/19/14 04:21	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	85		0.50	0.070	ug/L			06/20/14 14:52	1
Ethane	ND		0.50	0.19	ug/L			06/20/14 14:52	1
Ethylene	ND		0.50	0.18	ug/L			06/20/14 14:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,1-Trifluoroethane	102		66 - 132		06/20/14 14:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND	H	0.10		mg/L			06/12/14 22:41	1
Alkalinity	210		5.0		mg/L			06/16/14 15:57	1
Chloride	7.6		1.0		mg/L			06/13/14 08:06	1
Sulfate	26		5.0	1.8	mg/L			06/23/14 12:40	1
Sulfide	ND		1.0		mg/L			06/13/14 15:25	1
Total Organic Carbon	2.4		1.0		mg/L			06/13/14 10:52	1

TestAmerica Canton

Client Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Client Sample ID: TRIP BLANK 1

Lab Sample ID: 240-38459-3

Date Collected: 06/10/14 05:30

Matrix: Water

Date Received: 06/12/14 09:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			06/18/14 20:40	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			06/18/14 20:40	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.33	ug/L			06/18/14 20:40	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			06/18/14 20:40	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			06/18/14 20:40	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			06/18/14 20:40	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			06/18/14 20:40	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			06/18/14 20:40	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			06/18/14 20:40	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			06/18/14 20:40	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			06/18/14 20:40	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			06/18/14 20:40	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			06/18/14 20:40	1
2-Hexanone	ND		10	1.3	ug/L			06/18/14 20:40	1
Acetone	ND		25	2.7	ug/L			06/18/14 20:40	1
Benzene	ND		1.0	0.20	ug/L			06/18/14 20:40	1
Bromoform	ND		1.0	0.29	ug/L			06/18/14 20:40	1
Bromomethane	ND		1.0	0.35	ug/L			06/18/14 20:40	1
Carbon disulfide	ND		1.0	0.22	ug/L			06/18/14 20:40	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			06/18/14 20:40	1
Chlorobenzene	ND		1.0	0.18	ug/L			06/18/14 20:40	1
Chloroethane	ND		1.0	0.36	ug/L			06/18/14 20:40	1
Chloroform	ND		1.0	0.23	ug/L			06/18/14 20:40	1
Chloromethane	ND		1.0	0.36	ug/L			06/18/14 20:40	1
cis-1,2-Dichloroethene	ND		1.0	0.21	ug/L			06/18/14 20:40	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			06/18/14 20:40	1
Cyclohexane	ND		5.0	0.22	ug/L			06/18/14 20:40	1
Dichlorobromomethane	ND		1.0	0.17	ug/L			06/18/14 20:40	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			06/18/14 20:40	1
Ethylbenzene	ND		1.0	0.19	ug/L			06/18/14 20:40	1
Ethylene Dibromide	ND		1.0	0.21	ug/L			06/18/14 20:40	1
Isopropylbenzene	ND		1.0	0.33	ug/L			06/18/14 20:40	1
Methyl acetate	ND		10	0.72	ug/L			06/18/14 20:40	1
2-Butanone (MEK)	ND		50	2.6	ug/L			06/18/14 20:40	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			06/18/14 20:40	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			06/18/14 20:40	1
Methylene Chloride	0.69	J	5.0	0.22	ug/L			06/18/14 20:40	1
Styrene	ND		1.0	0.28	ug/L			06/18/14 20:40	1
Tetrachloroethene	ND		1.0	0.14	ug/L			06/18/14 20:40	1
Toluene	ND		1.0	0.17	ug/L			06/18/14 20:40	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			06/18/14 20:40	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			06/18/14 20:40	1
Trichloroethene	ND		1.0	0.20	ug/L			06/18/14 20:40	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			06/18/14 20:40	1
Vinyl chloride	ND		1.0	0.18	ug/L			06/18/14 20:40	1
Xylenes, Total	ND		2.0	0.38	ug/L			06/18/14 20:40	1
Methylcyclohexane	ND		5.0	0.20	ug/L			06/18/14 20:40	1
Chlorodibromomethane	ND		1.0	0.25	ug/L			06/18/14 20:40	1

TestAmerica Canton

Client Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Client Sample ID: TRIP BLANK 1

Lab Sample ID: 240-38459-3

Date Collected: 06/10/14 05:30

Matrix: Water

Date Received: 06/12/14 09:30

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	107		70 - 130		06/18/14 20:40	1
4-Bromofluorobenzene (Surr)	93		70 - 130		06/18/14 20:40	1
Toluene-d8 (Surr)	102		70 - 130		06/18/14 20:40	1
Dibromofluoromethane (Surr)	106		70 - 130		06/18/14 20:40	1

Client Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Client Sample ID: FIELD BLANK 1

Lab Sample ID: 240-38459-4

Date Collected: 06/10/14 05:35

Matrix: Water

Date Received: 06/12/14 09:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			06/18/14 21:08	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			06/18/14 21:08	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.33	ug/L			06/18/14 21:08	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			06/18/14 21:08	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			06/18/14 21:08	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			06/18/14 21:08	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			06/18/14 21:08	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			06/18/14 21:08	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			06/18/14 21:08	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			06/18/14 21:08	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			06/18/14 21:08	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			06/18/14 21:08	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			06/18/14 21:08	1
2-Hexanone	ND		10	1.3	ug/L			06/18/14 21:08	1
Acetone	ND		25	2.7	ug/L			06/18/14 21:08	1
Benzene	ND		1.0	0.20	ug/L			06/18/14 21:08	1
Bromoform	ND		1.0	0.29	ug/L			06/18/14 21:08	1
Bromomethane	ND		1.0	0.35	ug/L			06/18/14 21:08	1
Carbon disulfide	ND		1.0	0.22	ug/L			06/18/14 21:08	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			06/18/14 21:08	1
Chlorobenzene	ND		1.0	0.18	ug/L			06/18/14 21:08	1
Chloroethane	ND		1.0	0.36	ug/L			06/18/14 21:08	1
Chloroform	ND		1.0	0.23	ug/L			06/18/14 21:08	1
Chloromethane	ND		1.0	0.36	ug/L			06/18/14 21:08	1
cis-1,2-Dichloroethene	ND		1.0	0.21	ug/L			06/18/14 21:08	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			06/18/14 21:08	1
Cyclohexane	ND		5.0	0.22	ug/L			06/18/14 21:08	1
Dichlorobromomethane	ND		1.0	0.17	ug/L			06/18/14 21:08	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			06/18/14 21:08	1
Ethylbenzene	ND		1.0	0.19	ug/L			06/18/14 21:08	1
Ethylene Dibromide	ND		1.0	0.21	ug/L			06/18/14 21:08	1
Isopropylbenzene	ND		1.0	0.33	ug/L			06/18/14 21:08	1
Methyl acetate	ND		10	0.72	ug/L			06/18/14 21:08	1
2-Butanone (MEK)	ND		50	2.6	ug/L			06/18/14 21:08	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			06/18/14 21:08	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			06/18/14 21:08	1
Methylene Chloride	6.6		5.0	0.22	ug/L			06/18/14 21:08	1
Styrene	ND		1.0	0.28	ug/L			06/18/14 21:08	1
Tetrachloroethene	ND		1.0	0.14	ug/L			06/18/14 21:08	1
Toluene	ND		1.0	0.17	ug/L			06/18/14 21:08	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			06/18/14 21:08	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			06/18/14 21:08	1
Trichloroethene	ND		1.0	0.20	ug/L			06/18/14 21:08	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			06/18/14 21:08	1
Vinyl chloride	ND		1.0	0.18	ug/L			06/18/14 21:08	1
Xylenes, Total	ND		2.0	0.38	ug/L			06/18/14 21:08	1
Methylcyclohexane	ND		5.0	0.20	ug/L			06/18/14 21:08	1
Chlorodibromomethane	ND		1.0	0.25	ug/L			06/18/14 21:08	1

TestAmerica Canton

Client Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Client Sample ID: FIELD BLANK 1

Lab Sample ID: 240-38459-4

Date Collected: 06/10/14 05:35

Matrix: Water

Date Received: 06/12/14 09:30

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	109		70 - 130		06/18/14 21:08	1
4-Bromofluorobenzene (Surr)	92		70 - 130		06/18/14 21:08	1
Toluene-d8 (Surr)	103		70 - 130		06/18/14 21:08	1
Dibromofluoromethane (Surr)	110		70 - 130		06/18/14 21:08	1

Client Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Client Sample ID: OW-18

Lab Sample ID: 240-38459-5

Date Collected: 06/11/14 09:30

Matrix: Water

Date Received: 06/12/14 09:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			06/19/14 04:49	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			06/19/14 04:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.33	ug/L			06/19/14 04:49	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			06/19/14 04:49	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			06/19/14 04:49	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			06/19/14 04:49	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			06/19/14 04:49	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			06/19/14 04:49	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			06/19/14 04:49	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			06/19/14 04:49	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			06/19/14 04:49	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			06/19/14 04:49	1
1,4-Dichlorobenzene	1.1		1.0	0.17	ug/L			06/19/14 04:49	1
2-Hexanone	ND		10	1.3	ug/L			06/19/14 04:49	1
Acetone	ND		25	2.7	ug/L			06/19/14 04:49	1
Benzene	3.2		1.0	0.20	ug/L			06/19/14 04:49	1
Bromoform	ND		1.0	0.29	ug/L			06/19/14 04:49	1
Bromomethane	ND		1.0	0.35	ug/L			06/19/14 04:49	1
Carbon disulfide	ND		1.0	0.22	ug/L			06/19/14 04:49	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			06/19/14 04:49	1
Chlorobenzene	16		1.0	0.18	ug/L			06/19/14 04:49	1
Chloroethane	ND		1.0	0.36	ug/L			06/19/14 04:49	1
Chloroform	ND		1.0	0.23	ug/L			06/19/14 04:49	1
Chloromethane	ND		1.0	0.36	ug/L			06/19/14 04:49	1
cis-1,2-Dichloroethene	0.32	J	1.0	0.21	ug/L			06/19/14 04:49	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			06/19/14 04:49	1
Cyclohexane	ND		5.0	0.22	ug/L			06/19/14 04:49	1
Dichlorobromomethane	ND		1.0	0.17	ug/L			06/19/14 04:49	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			06/19/14 04:49	1
Ethylbenzene	ND		1.0	0.19	ug/L			06/19/14 04:49	1
Ethylene Dibromide	ND		1.0	0.21	ug/L			06/19/14 04:49	1
Isopropylbenzene	ND		1.0	0.33	ug/L			06/19/14 04:49	1
Methyl acetate	ND		10	0.72	ug/L			06/19/14 04:49	1
2-Butanone (MEK)	ND		50	2.6	ug/L			06/19/14 04:49	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			06/19/14 04:49	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			06/19/14 04:49	1
Methylene Chloride	0.28	J	5.0	0.22	ug/L			06/19/14 04:49	1
Styrene	ND		1.0	0.28	ug/L			06/19/14 04:49	1
Tetrachloroethene	ND		1.0	0.14	ug/L			06/19/14 04:49	1
Toluene	0.29	J	1.0	0.17	ug/L			06/19/14 04:49	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			06/19/14 04:49	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			06/19/14 04:49	1
Trichloroethane	ND		1.0	0.20	ug/L			06/19/14 04:49	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			06/19/14 04:49	1
Vinyl chloride	ND		1.0	0.18	ug/L			06/19/14 04:49	1
Xylenes, Total	ND		2.0	0.38	ug/L			06/19/14 04:49	1
Methylcyclohexane	ND		5.0	0.20	ug/L			06/19/14 04:49	1
Chlorodibromomethane	ND		1.0	0.25	ug/L			06/19/14 04:49	1

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TestAmerica Canton

Client Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Client Sample ID: OW-18

Lab Sample ID: 240-38459-5

Date Collected: 06/11/14 09:30

Matrix: Water

Date Received: 06/12/14 09:30

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		70 - 130		06/19/14 04:49	1
4-Bromofluorobenzene (Surr)	91		70 - 130		06/19/14 04:49	1
Toluene-d8 (Surr)	100		70 - 130		06/19/14 04:49	1
Dibromofluoromethane (Surr)	107		70 - 130		06/19/14 04:49	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	880		0.50	0.070	ug/L			06/20/14 15:04	1
Ethane	ND		0.50	0.19	ug/L			06/20/14 15:04	1
Ethylene	ND		0.50	0.18	ug/L			06/20/14 15:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,1-Trifluoroethane	95		66 - 132		06/20/14 15:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.10		mg/L			06/12/14 22:58	1
Alkalinity	270	B	5.0	1.9	mg/L			06/19/14 14:35	1
Chloride	10		1.0		mg/L			06/13/14 08:11	1
Sulfate	7.9	B	5.0	1.8	mg/L			06/19/14 08:46	1
Sulfide	ND		1.0		mg/L			06/13/14 15:31	1
Total Organic Carbon	12		1.0		mg/L			06/13/14 11:03	1

TestAmerica Canton

Client Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Client Sample ID: PUMP BLANK

Lab Sample ID: 240-38459-6

Date Collected: 06/11/14 09:50

Matrix: Water

Date Received: 06/12/14 09:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			06/18/14 21:37	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			06/18/14 21:37	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.33	ug/L			06/18/14 21:37	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			06/18/14 21:37	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			06/18/14 21:37	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			06/18/14 21:37	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			06/18/14 21:37	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			06/18/14 21:37	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			06/18/14 21:37	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			06/18/14 21:37	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			06/18/14 21:37	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			06/18/14 21:37	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			06/18/14 21:37	1
2-Hexanone	ND		10	1.3	ug/L			06/18/14 21:37	1
Acetone	3.0	J	25	2.7	ug/L			06/18/14 21:37	1
Benzene	ND		1.0	0.20	ug/L			06/18/14 21:37	1
Bromoform	ND		1.0	0.29	ug/L			06/18/14 21:37	1
Bromomethane	ND		1.0	0.35	ug/L			06/18/14 21:37	1
Carbon disulfide	ND		1.0	0.22	ug/L			06/18/14 21:37	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			06/18/14 21:37	1
Chlorobenzene	ND		1.0	0.18	ug/L			06/18/14 21:37	1
Chloroethane	ND		1.0	0.36	ug/L			06/18/14 21:37	1
Chloroform	ND		1.0	0.23	ug/L			06/18/14 21:37	1
Chloromethane	ND		1.0	0.36	ug/L			06/18/14 21:37	1
cis-1,2-Dichloroethene	ND		1.0	0.21	ug/L			06/18/14 21:37	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			06/18/14 21:37	1
Cyclohexane	ND		5.0	0.22	ug/L			06/18/14 21:37	1
Dichlorobromomethane	ND		1.0	0.17	ug/L			06/18/14 21:37	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			06/18/14 21:37	1
Ethylbenzene	ND		1.0	0.19	ug/L			06/18/14 21:37	1
Ethylene Dibromide	ND		1.0	0.21	ug/L			06/18/14 21:37	1
Isopropylbenzene	ND		1.0	0.33	ug/L			06/18/14 21:37	1
Methyl acetate	ND		10	0.72	ug/L			06/18/14 21:37	1
2-Butanone (MEK)	ND		50	2.6	ug/L			06/18/14 21:37	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			06/18/14 21:37	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			06/18/14 21:37	1
Methylene Chloride	5.9		5.0	0.22	ug/L			06/18/14 21:37	1
Styrene	ND		1.0	0.28	ug/L			06/18/14 21:37	1
Tetrachloroethene	ND		1.0	0.14	ug/L			06/18/14 21:37	1
Toluene	ND		1.0	0.17	ug/L			06/18/14 21:37	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			06/18/14 21:37	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			06/18/14 21:37	1
Trichloroethene	ND		1.0	0.20	ug/L			06/18/14 21:37	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			06/18/14 21:37	1
Vinyl chloride	ND		1.0	0.18	ug/L			06/18/14 21:37	1
Xylenes, Total	ND		2.0	0.38	ug/L			06/18/14 21:37	1
Methylcyclohexane	ND		5.0	0.20	ug/L			06/18/14 21:37	1
Chlorodibromomethane	ND		1.0	0.25	ug/L			06/18/14 21:37	1

TestAmerica Canton

Client Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Client Sample ID: PUMP BLANK

Lab Sample ID: 240-38459-6

Date Collected: 06/11/14 09:50

Matrix: Water

Date Received: 06/12/14 09:30

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		70 - 130		06/18/14 21:37	1
4-Bromofluorobenzene (Surr)	90		70 - 130		06/18/14 21:37	1
Toluene-d8 (Surr)	102		70 - 130		06/18/14 21:37	1
Dibromofluoromethane (Surr)	105		70 - 130		06/18/14 21:37	1

Client Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Client Sample ID: OW-19

Lab Sample ID: 240-38459-7

Date Collected: 06/11/14 11:00

Matrix: Water

Date Received: 06/12/14 09:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			06/19/14 05:18	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			06/19/14 05:18	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.33	ug/L			06/19/14 05:18	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			06/19/14 05:18	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			06/19/14 05:18	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			06/19/14 05:18	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			06/19/14 05:18	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			06/19/14 05:18	1
1,2-Dichlorobenzene	0.19	J	1.0	0.19	ug/L			06/19/14 05:18	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			06/19/14 05:18	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			06/19/14 05:18	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			06/19/14 05:18	1
1,4-Dichlorobenzene	1.1		1.0	0.17	ug/L			06/19/14 05:18	1
2-Hexanone	ND		10	1.3	ug/L			06/19/14 05:18	1
Acetone	ND		25	2.7	ug/L			06/19/14 05:18	1
Benzene	1.4		1.0	0.20	ug/L			06/19/14 05:18	1
Bromoform	ND		1.0	0.29	ug/L			06/19/14 05:18	1
Bromomethane	ND		1.0	0.35	ug/L			06/19/14 05:18	1
Carbon disulfide	ND		1.0	0.22	ug/L			06/19/14 05:18	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			06/19/14 05:18	1
Chlorobenzene	12		1.0	0.18	ug/L			06/19/14 05:18	1
Chloroethane	ND		1.0	0.36	ug/L			06/19/14 05:18	1
Chloroform	ND		1.0	0.23	ug/L			06/19/14 05:18	1
Chloromethane	ND		1.0	0.36	ug/L			06/19/14 05:18	1
cis-1,2-Dichloroethene	1.5		1.0	0.21	ug/L			06/19/14 05:18	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			06/19/14 05:18	1
Cyclohexane	ND		5.0	0.22	ug/L			06/19/14 05:18	1
Dichlorobromomethane	ND		1.0	0.17	ug/L			06/19/14 05:18	1
Dichlorodifluoromethane	0.91	J	1.0	0.17	ug/L			06/19/14 05:18	1
Ethylbenzene	ND		1.0	0.19	ug/L			06/19/14 05:18	1
Ethylene Dibromide	ND		1.0	0.21	ug/L			06/19/14 05:18	1
Isopropylbenzene	ND		1.0	0.33	ug/L			06/19/14 05:18	1
Methyl acetate	ND		10	0.72	ug/L			06/19/14 05:18	1
2-Butanone (MEK)	ND		50	2.6	ug/L			06/19/14 05:18	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			06/19/14 05:18	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			06/19/14 05:18	1
Methylene Chloride	ND		5.0	0.22	ug/L			06/19/14 05:18	1
Styrene	ND		1.0	0.28	ug/L			06/19/14 05:18	1
Tetrachloroethene	ND		1.0	0.14	ug/L			06/19/14 05:18	1
Toluene	ND		1.0	0.17	ug/L			06/19/14 05:18	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			06/19/14 05:18	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			06/19/14 05:18	1
Trichloroethene	ND		1.0	0.20	ug/L			06/19/14 05:18	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			06/19/14 05:18	1
Vinyl chloride	1.5		1.0	0.18	ug/L			06/19/14 05:18	1
Xylenes, Total	ND		2.0	0.38	ug/L			06/19/14 05:18	1
Methylcyclohexane	ND		5.0	0.20	ug/L			06/19/14 05:18	1
Chlorodibromomethane	ND		1.0	0.25	ug/L			06/19/14 05:18	1

TestAmerica Canton

Client Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Client Sample ID: OW-19

Lab Sample ID: 240-38459-7

Date Collected: 06/11/14 11:00

Matrix: Water

Date Received: 06/12/14 09:30

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		70 - 130		06/19/14 05:18	1
4-Bromofluorobenzene (Surr)	94		70 - 130		06/19/14 05:18	1
Toluene-d8 (Surr)	100		70 - 130		06/19/14 05:18	1
Dibromofluoromethane (Surr)	107		70 - 130		06/19/14 05:18	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	1000		0.50	0.070	ug/L			06/20/14 15:16	1
Ethane	0.25	J	0.50	0.19	ug/L			06/20/14 15:16	1
Ethylene	ND		0.50	0.18	ug/L			06/20/14 15:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,1-Trifluoroethane	98		66 - 132		06/20/14 15:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.10		mg/L			06/12/14 23:47	1
Alkalinity	200	B	5.0	1.9	mg/L			06/19/14 14:45	1
Chloride	21		1.0		mg/L			06/13/14 08:06	1
Sulfate	15	B	5.0	1.8	mg/L			06/19/14 12:01	1
Sulfide	ND		1.0		mg/L			06/13/14 15:36	1
Total Organic Carbon	6.9		1.0		mg/L			06/13/14 11:13	1

TestAmerica Canton

Client Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Client Sample ID: OW-5

Lab Sample ID: 240-38459-8

Date Collected: 06/11/14 12:15

Matrix: Water

Date Received: 06/12/14 09:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			06/19/14 03:23	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			06/19/14 03:23	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.33	ug/L			06/19/14 03:23	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			06/19/14 03:23	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			06/19/14 03:23	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			06/19/14 03:23	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			06/19/14 03:23	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			06/19/14 03:23	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			06/19/14 03:23	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			06/19/14 03:23	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			06/19/14 03:23	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			06/19/14 03:23	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			06/19/14 03:23	1
2-Hexanone	ND		10	1.3	ug/L			06/19/14 03:23	1
Acetone	ND		25	2.7	ug/L			06/19/14 03:23	1
Benzene	0.32	J	1.0	0.20	ug/L			06/19/14 03:23	1
Bromoform	ND		1.0	0.29	ug/L			06/19/14 03:23	1
Bromomethane	ND		1.0	0.35	ug/L			06/19/14 03:23	1
Carbon disulfide	ND		1.0	0.22	ug/L			06/19/14 03:23	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			06/19/14 03:23	1
Chlorobenzene	ND		1.0	0.18	ug/L			06/19/14 03:23	1
Chloroethane	ND		1.0	0.36	ug/L			06/19/14 03:23	1
Chloroform	ND		1.0	0.23	ug/L			06/19/14 03:23	1
Chloromethane	ND		1.0	0.36	ug/L			06/19/14 03:23	1
cis-1,2-Dichloroethene	10		1.0	0.21	ug/L			06/19/14 03:23	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			06/19/14 03:23	1
Cyclohexane	ND		5.0	0.22	ug/L			06/19/14 03:23	1
Dichlorobromomethane	ND		1.0	0.17	ug/L			06/19/14 03:23	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			06/19/14 03:23	1
Ethylbenzene	ND		1.0	0.19	ug/L			06/19/14 03:23	1
Ethylene Dibromide	ND		1.0	0.21	ug/L			06/19/14 03:23	1
Isopropylbenzene	ND		1.0	0.33	ug/L			06/19/14 03:23	1
Methyl acetate	ND		10	0.72	ug/L			06/19/14 03:23	1
2-Butanone (MEK)	ND		50	2.6	ug/L			06/19/14 03:23	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			06/19/14 03:23	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			06/19/14 03:23	1
Methylene Chloride	ND		5.0	0.22	ug/L			06/19/14 03:23	1
Styrene	ND		1.0	0.28	ug/L			06/19/14 03:23	1
Tetrachloroethene	4.0		1.0	0.14	ug/L			06/19/14 03:23	1
Toluene	ND		1.0	0.17	ug/L			06/19/14 03:23	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			06/19/14 03:23	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			06/19/14 03:23	1
Trichloroethene	1.5		1.0	0.20	ug/L			06/19/14 03:23	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			06/19/14 03:23	1
Vinyl chloride	ND		1.0	0.18	ug/L			06/19/14 03:23	1
Xylenes, Total	ND		2.0	0.38	ug/L			06/19/14 03:23	1
Methylcyclohexane	ND		5.0	0.20	ug/L			06/19/14 03:23	1
Chlorodibromomethane	ND		1.0	0.25	ug/L			06/19/14 03:23	1

TestAmerica Canton

Client Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Client Sample ID: OW-5

Lab Sample ID: 240-38459-8

Date Collected: 06/11/14 12:15

Matrix: Water

Date Received: 06/12/14 09:30

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		70 - 130		06/19/14 03:23	1
4-Bromofluorobenzene (Surr)	90		70 - 130		06/19/14 03:23	1
Toluene-d8 (Surr)	102		70 - 130		06/19/14 03:23	1
Dibromofluoromethane (Surr)	105		70 - 130		06/19/14 03:23	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	3.0		0.50	0.070	ug/L			06/20/14 15:28	1
Ethane	ND		0.50	0.19	ug/L			06/20/14 15:28	1
Ethylene	ND		0.50	0.18	ug/L			06/20/14 15:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,1-Trifluoroethane	101		66 - 132		06/20/14 15:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.10		mg/L			06/13/14 00:03	1
Alkalinity	94	B	5.0	1.9	mg/L			06/19/14 14:59	1
Chloride	11		1.0		mg/L			06/13/14 08:06	1
Sulfate	48	B	25	9.0	mg/L			06/19/14 08:57	5
Sulfide	ND		1.0		mg/L			06/13/14 15:42	1
Total Organic Carbon	ND		1.0		mg/L			06/13/14 09:58	1

Handwritten note: J+ high MS recovery

Handwritten note: R19 7/11/14

TestAmerica Canton

Client Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Client Sample ID: TRIP BLANK 2

Lab Sample ID: 240-38499-1

Date Collected: 06/11/14 14:20

Matrix: Water

Date Received: 06/13/14 09:20

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			06/19/14 19:52	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			06/19/14 19:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.33	ug/L			06/19/14 19:52	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			06/19/14 19:52	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			06/19/14 19:52	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			06/19/14 19:52	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			06/19/14 19:52	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			06/19/14 19:52	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			06/19/14 19:52	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			06/19/14 19:52	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			06/19/14 19:52	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			06/19/14 19:52	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			06/19/14 19:52	1
2-Hexanone	ND		10	1.3	ug/L			06/19/14 19:52	1
Acetone	ND		25	2.7	ug/L			06/19/14 19:52	1
Benzene	ND		1.0	0.20	ug/L			06/19/14 19:52	1
Bromoform	ND		1.0	0.29	ug/L			06/19/14 19:52	1
Bromomethane	ND		1.0	0.35	ug/L			06/19/14 19:52	1
Carbon disulfide	ND		1.0	0.22	ug/L			06/19/14 19:52	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			06/19/14 19:52	1
Chlorobenzene	ND		1.0	0.18	ug/L			06/19/14 19:52	1
Chloroethane	ND		1.0	0.36	ug/L			06/19/14 19:52	1
Chloroform	ND		1.0	0.23	ug/L			06/19/14 19:52	1
Chloromethane	ND		1.0	0.36	ug/L			06/19/14 19:52	1
cis-1,2-Dichloroethene	ND		1.0	0.21	ug/L			06/19/14 19:52	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			06/19/14 19:52	1
Cyclohexane	ND		5.0	0.22	ug/L			06/19/14 19:52	1
Dichlorobromomethane	ND		1.0	0.17	ug/L			06/19/14 19:52	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			06/19/14 19:52	1
Ethylbenzene	ND		1.0	0.19	ug/L			06/19/14 19:52	1
Ethylene Dibromide	ND		1.0	0.21	ug/L			06/19/14 19:52	1
Isopropylbenzene	ND		1.0	0.33	ug/L			06/19/14 19:52	1
Methyl acetate	ND		10	0.72	ug/L			06/19/14 19:52	1
2-Butanone (MEK)	ND		50	2.6	ug/L			06/19/14 19:52	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			06/19/14 19:52	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			06/19/14 19:52	1
Methylene Chloride	0.78	J	5.0	0.22	ug/L			06/19/14 19:52	1
Styrene	ND		1.0	0.28	ug/L			06/19/14 19:52	1
Tetrachloroethene	ND		1.0	0.14	ug/L			06/19/14 19:52	1
Toluene	ND		1.0	0.17	ug/L			06/19/14 19:52	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			06/19/14 19:52	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			06/19/14 19:52	1
Trichloroethene	ND		1.0	0.20	ug/L			06/19/14 19:52	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			06/19/14 19:52	1
Vinyl chloride	ND		1.0	0.18	ug/L			06/19/14 19:52	1
Xylenes, Total	ND		2.0	0.38	ug/L			06/19/14 19:52	1
Methylcyclohexane	ND		5.0	0.20	ug/L			06/19/14 19:52	1
Chlorodibromomethane	ND		1.0	0.25	ug/L			06/19/14 19:52	1

TestAmerica Canton

Client Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Client Sample ID: TRIP BLANK 2

Lab Sample ID: 240-38499-1

Date Collected: 06/11/14 14:20

Matrix: Water

Date Received: 06/13/14 09:20

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	98		70 - 130		06/19/14 19:52	1
4-Bromofluorobenzene (Surr)	98		70 - 130		06/19/14 19:52	1
Toluene-d8 (Surr)	113		70 - 130		06/19/14 19:52	1
Dibromofluoromethane (Surr)	95		70 - 130		06/19/14 19:52	1

Client Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Client Sample ID: OW-6

Lab Sample ID: 240-38499-2

Date Collected: 06/11/14 14:50

Matrix: Water

Date Received: 06/13/14 09:20

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			06/19/14 20:19	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			06/19/14 20:19	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.33	ug/L			06/19/14 20:19	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			06/19/14 20:19	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			06/19/14 20:19	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			06/19/14 20:19	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			06/19/14 20:19	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			06/19/14 20:19	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			06/19/14 20:19	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			06/19/14 20:19	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			06/19/14 20:19	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			06/19/14 20:19	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			06/19/14 20:19	1
2-Hexanone	ND		10	1.3	ug/L			06/19/14 20:19	1
Acetone	ND		25	2.7	ug/L			06/19/14 20:19	1
Benzene	ND		1.0	0.20	ug/L			06/19/14 20:19	1
Bromoform	ND		1.0	0.29	ug/L			06/19/14 20:19	1
Bromomethane	ND		1.0	0.35	ug/L			06/19/14 20:19	1
Carbon disulfide	2.0		1.0	0.22	ug/L			06/19/14 20:19	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			06/19/14 20:19	1
Chlorobenzene	ND		1.0	0.18	ug/L			06/19/14 20:19	1
Chloroethane	ND		1.0	0.36	ug/L			06/19/14 20:19	1
Chloroform	ND		1.0	0.23	ug/L			06/19/14 20:19	1
Chloromethane	ND		1.0	0.36	ug/L			06/19/14 20:19	1
cis-1,2-Dichloroethene	17		1.0	0.21	ug/L			06/19/14 20:19	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			06/19/14 20:19	1
Cyclohexane	ND		5.0	0.22	ug/L			06/19/14 20:19	1
Dichlorobromomethane	ND		1.0	0.17	ug/L			06/19/14 20:19	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			06/19/14 20:19	1
Ethylbenzene	ND		1.0	0.19	ug/L			06/19/14 20:19	1
Ethylene Dibromide	ND		1.0	0.21	ug/L			06/19/14 20:19	1
Isopropylbenzene	ND		1.0	0.33	ug/L			06/19/14 20:19	1
Methyl acetate	ND		10	0.72	ug/L			06/19/14 20:19	1
2-Butanone (MEK)	ND		50	2.6	ug/L			06/19/14 20:19	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			06/19/14 20:19	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			06/19/14 20:19	1
Methylene Chloride	0.38	5.00 FB B45 7/9/14	5.0	0.22	ug/L			06/19/14 20:19	1
Styrene	ND		1.0	0.28	ug/L			06/19/14 20:19	1
Tetrachloroethene	62		1.0	0.14	ug/L			06/19/14 20:19	1
Toluene	ND		1.0	0.17	ug/L			06/19/14 20:19	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			06/19/14 20:19	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			06/19/14 20:19	1
Trichloroethene	10		1.0	0.20	ug/L			06/19/14 20:19	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			06/19/14 20:19	1
Vinyl chloride	ND		1.0	0.18	ug/L			06/19/14 20:19	1
Xylenes, Total	ND		2.0	0.38	ug/L			06/19/14 20:19	1
Methylcyclohexane	ND		5.0	0.20	ug/L			06/19/14 20:19	1
Chlorodibromomethane	ND		1.0	0.25	ug/L			06/19/14 20:19	1

TestAmerica Canton

Client Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Client Sample ID: OW-6

Lab Sample ID: 240-38499-2

Date Collected: 06/11/14 14:50

Matrix: Water

Date Received: 06/13/14 09:20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		70 - 130		06/19/14 20:19	1
4-Bromofluorobenzene (Surr)	96		70 - 130		06/19/14 20:19	1
Toluene-d8 (Surr)	109		70 - 130		06/19/14 20:19	1
Dibromofluoromethane (Surr)	97		70 - 130		06/19/14 20:19	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		0.50	0.070	ug/L			06/20/14 16:17	1
Ethane	ND		0.50	0.19	ug/L			06/20/14 16:17	1
Ethylene	ND		0.50	0.18	ug/L			06/20/14 16:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,1-Trifluoroethane	101		66 - 132		06/20/14 16:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.55		0.10		mg/L			06/13/14 18:42	1
Alkalinity	35	B	5.0	1.9	mg/L			06/19/14 16:56	1
Chloride	1.1		1.0	0.40	mg/L			06/20/14 11:29	1
Sulfate	22		5.0	1.8	mg/L			06/23/14 09:32	1
Sulfide	ND		1.0		mg/L			06/17/14 11:56	1
Total Organic Carbon	ND		1.0		mg/L			06/16/14 12:02	1

J - based on holding time 6/19/14

TestAmerica Canton

Client Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Client Sample ID: OW-2

Lab Sample ID: 240-38499-3

Date Collected: 06/11/14 16:00

Matrix: Water

Date Received: 06/13/14 09:20

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			06/20/14 05:41	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			06/20/14 05:41	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.33	ug/L			06/20/14 05:41	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			06/20/14 05:41	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			06/20/14 05:41	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			06/20/14 05:41	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			06/20/14 05:41	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			06/20/14 05:41	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			06/20/14 05:41	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			06/20/14 05:41	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			06/20/14 05:41	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			06/20/14 05:41	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			06/20/14 05:41	1
2-Hexanone	ND		10	1.3	ug/L			06/20/14 05:41	1
Acetone	ND		25	2.7	ug/L			06/20/14 05:41	1
Benzene	ND		1.0	0.20	ug/L			06/20/14 05:41	1
Bromoform	ND		1.0	0.29	ug/L			06/20/14 05:41	1
Bromomethane	ND		1.0	0.35	ug/L			06/20/14 05:41	1
Carbon disulfide	ND		1.0	0.22	ug/L			06/20/14 05:41	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			06/20/14 05:41	1
Chlorobenzene	ND		1.0	0.18	ug/L			06/20/14 05:41	1
Chloroethane	ND		1.0	0.36	ug/L			06/20/14 05:41	1
Chloroform	ND		1.0	0.23	ug/L			06/20/14 05:41	1
Chloromethane	ND		1.0	0.36	ug/L			06/20/14 05:41	1
cis-1,2-Dichloroethene	54		1.0	0.21	ug/L			06/20/14 05:41	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			06/20/14 05:41	1
Cyclohexane	ND		5.0	0.22	ug/L			06/20/14 05:41	1
Dichlorobromomethane	ND		1.0	0.17	ug/L			06/20/14 05:41	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			06/20/14 05:41	1
Ethylbenzene	ND		1.0	0.19	ug/L			06/20/14 05:41	1
Ethylene Dibromide	ND		1.0	0.21	ug/L			06/20/14 05:41	1
Isopropylbenzene	ND		1.0	0.33	ug/L			06/20/14 05:41	1
Methyl acetate	ND		10	0.72	ug/L			06/20/14 05:41	1
2-Butanone (MEK)	ND		50	2.6	ug/L			06/20/14 05:41	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			06/20/14 05:41	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			06/20/14 05:41	1
Methylene Chloride	ND		5.0	0.22	ug/L			06/20/14 05:41	1
Styrene	ND		1.0	0.28	ug/L			06/20/14 05:41	1
Tetrachloroethene	94		1.0	0.14	ug/L			06/20/14 05:41	1
Toluene	ND		1.0	0.17	ug/L			06/20/14 05:41	1
trans-1,2-Dichloroethene	0.38	J	1.0	0.23	ug/L			06/20/14 05:41	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			06/20/14 05:41	1
Trichloroethene	11		1.0	0.20	ug/L			06/20/14 05:41	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			06/20/14 05:41	1
Vinyl chloride	ND		1.0	0.18	ug/L			06/20/14 05:41	1
Xylenes, Total	ND		2.0	0.38	ug/L			06/20/14 05:41	1
Methylcyclohexane	ND		5.0	0.20	ug/L			06/20/14 05:41	1
Chlorodibromomethane	ND		1.0	0.25	ug/L			06/20/14 05:41	1

TestAmerica Canton

Client Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Client Sample ID: OW-2

Lab Sample ID: 240-38499-3

Date Collected: 06/11/14 16:00

Matrix: Water

Date Received: 06/13/14 09:20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		70 - 130		06/20/14 05:41	1
4-Bromofluorobenzene (Surr)	92		70 - 130		06/20/14 05:41	1
Toluene-d8 (Surr)	113		70 - 130		06/20/14 05:41	1
Dibromofluoromethane (Surr)	98		70 - 130		06/20/14 05:41	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		0.50	0.070	ug/L			06/20/14 16:30	1
Ethane	ND		0.50	0.19	ug/L			06/20/14 16:30	1
Ethylene	ND		0.50	0.18	ug/L			06/20/14 16:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,1-Trifluoroethane	100		66 - 132		06/20/14 16:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.1	H	0.10		mg/L			06/13/14 19:32	1
Alkalinity	40	B	5.0	1.9	mg/L			06/19/14 17:03	1
Chloride	1.8		1.0	0.40	mg/L			06/20/14 11:29	1
Sulfate	16		5.0	1.8	mg/L			06/23/14 09:32	1
Sulfide	ND		1.0		mg/L			06/17/14 12:05	1
Total Organic Carbon	ND		1.0		mg/L			06/16/14 12:13	1

Handwritten notes:

- Circle around result 2.1 for Nitrate as N.
- Circle around result 16 for Sulfate.
- Arrow pointing from Sulfate result 16 to a note: "J+ high MSD recovery"
- Circle around "J-" with a note: "based on holding time 1549 7/11/14"

TestAmerica Canton

Client Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Client Sample ID: FIELD BLANK 2

Lab Sample ID: 240-38499-4

Date Collected: 06/11/14 16:45

Matrix: Water

Date Received: 06/13/14 09:20

Method: 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			06/20/14 06:08	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			06/20/14 06:08	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.33	ug/L			06/20/14 06:08	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			06/20/14 06:08	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			06/20/14 06:08	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			06/20/14 06:08	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			06/20/14 06:08	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			06/20/14 06:08	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			06/20/14 06:08	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			06/20/14 06:08	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			06/20/14 06:08	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			06/20/14 06:08	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			06/20/14 06:08	1
2-Hexanone	ND		10	1.3	ug/L			06/20/14 06:08	1
Acetone	4.3	J	25	2.7	ug/L			06/20/14 06:08	1
Benzene	ND		1.0	0.20	ug/L			06/20/14 06:08	1
Bromoform	ND		1.0	0.29	ug/L			06/20/14 06:08	1
Bromomethane	ND		1.0	0.35	ug/L			06/20/14 06:08	1
Carbon disulfide	ND		1.0	0.22	ug/L			06/20/14 06:08	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			06/20/14 06:08	1
Chlorobenzene	ND		1.0	0.18	ug/L			06/20/14 06:08	1
Chloroethane	ND		1.0	0.36	ug/L			06/20/14 06:08	1
Chloroform	ND		1.0	0.23	ug/L			06/20/14 06:08	1
Chloromethane	ND		1.0	0.36	ug/L			06/20/14 06:08	1
cis-1,2-Dichloroethene	ND		1.0	0.21	ug/L			06/20/14 06:08	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			06/20/14 06:08	1
Cyclohexane	ND		5.0	0.22	ug/L			06/20/14 06:08	1
Dichlorobromomethane	ND		1.0	0.17	ug/L			06/20/14 06:08	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			06/20/14 06:08	1
Ethylbenzene	ND		1.0	0.19	ug/L			06/20/14 06:08	1
Ethylene Dibromide	ND		1.0	0.21	ug/L			06/20/14 06:08	1
Isopropylbenzene	ND		1.0	0.33	ug/L			06/20/14 06:08	1
Methyl acetate	ND		10	0.72	ug/L			06/20/14 06:08	1
2-Butanone (MEK)	ND		50	2.6	ug/L			06/20/14 06:08	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			06/20/14 06:08	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			06/20/14 06:08	1
Methylene Chloride	4.5	J	5.0	0.22	ug/L			06/20/14 06:08	1
Styrene	ND		1.0	0.28	ug/L			06/20/14 06:08	1
Tetrachloroethene	ND		1.0	0.14	ug/L			06/20/14 06:08	1
Toluene	ND		1.0	0.17	ug/L			06/20/14 06:08	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			06/20/14 06:08	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			06/20/14 06:08	1
Trichloroethane	ND		1.0	0.20	ug/L			06/20/14 06:08	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			06/20/14 06:08	1
Vinyl chloride	ND		1.0	0.18	ug/L			06/20/14 06:08	1
Xylenes, Total	ND		2.0	0.38	ug/L			06/20/14 06:08	1
Methylcyclohexane	ND		5.0	0.20	ug/L			06/20/14 06:08	1
Chlorodibromomethane	ND		1.0	0.25	ug/L			06/20/14 06:08	1

TestAmerica Canton

Client Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Client Sample ID: FIELD BLANK 2

Lab Sample ID: 240-38499-4

Date Collected: 06/11/14 16:45

Matrix: Water

Date Received: 06/13/14 09:20

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	100		70 - 130		06/20/14 06:08	1
4-Bromofluorobenzene (Surr)	94		70 - 130		06/20/14 06:08	1
Toluene-d8 (Surr)	114		70 - 130		06/20/14 06:08	1
Dibromofluoromethane (Surr)	100		70 - 130		06/20/14 06:08	1

Client Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Client Sample ID: MW-4

Lab Sample ID: 240-38499-5

Date Collected: 06/11/14 16:50

Matrix: Water

Date Received: 06/13/14 09:20

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			06/20/14 06:35	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			06/20/14 06:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.33	ug/L			06/20/14 06:35	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			06/20/14 06:35	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			06/20/14 06:35	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			06/20/14 06:35	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			06/20/14 06:35	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			06/20/14 06:35	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			06/20/14 06:35	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			06/20/14 06:35	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			06/20/14 06:35	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			06/20/14 06:35	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			06/20/14 06:35	1
2-Hexanone	ND		10	1.3	ug/L			06/20/14 06:35	1
Acetone	ND		25	2.7	ug/L			06/20/14 06:35	1
Benzene	1.2		1.0	0.20	ug/L			06/20/14 06:35	1
Bromoform	ND		1.0	0.29	ug/L			06/20/14 06:35	1
Bromomethane	ND		1.0	0.35	ug/L			06/20/14 06:35	1
Carbon disulfide	ND		1.0	0.22	ug/L			06/20/14 06:35	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			06/20/14 06:35	1
Chlorobenzene	ND		1.0	0.18	ug/L			06/20/14 06:35	1
Chloroethane	ND		1.0	0.36	ug/L			06/20/14 06:35	1
Chloroform	ND		1.0	0.23	ug/L			06/20/14 06:35	1
Chloromethane	ND		1.0	0.36	ug/L			06/20/14 06:35	1
cis-1,2-Dichloroethene	ND		1.0	0.21	ug/L			06/20/14 06:35	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			06/20/14 06:35	1
Cyclohexane	ND		5.0	0.22	ug/L			06/20/14 06:35	1
Dichlorobromomethane	ND		1.0	0.17	ug/L			06/20/14 06:35	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			06/20/14 06:35	1
Ethylbenzene	ND		1.0	0.19	ug/L			06/20/14 06:35	1
Ethylene Dibromide	ND		1.0	0.21	ug/L			06/20/14 06:35	1
Isopropylbenzene	ND		1.0	0.33	ug/L			06/20/14 06:35	1
Methyl acetate	ND		10	0.72	ug/L			06/20/14 06:35	1
2-Butanone (MEK)	ND		50	2.6	ug/L			06/20/14 06:35	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			06/20/14 06:35	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			06/20/14 06:35	1
Methylene Chloride	ND		5.0	0.22	ug/L			06/20/14 06:35	1
Styrene	ND		1.0	0.28	ug/L			06/20/14 06:35	1
Tetrachloroethene	0.33		1.0	0.14	ug/L			06/20/14 06:35	1
Toluene	ND		1.0	0.17	ug/L			06/20/14 06:35	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			06/20/14 06:35	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			06/20/14 06:35	1
Trichloroethane	ND		1.0	0.20	ug/L			06/20/14 06:35	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			06/20/14 06:35	1
Vinyl chloride	ND		1.0	0.18	ug/L			06/20/14 06:35	1
Xylenes, Total	ND		2.0	0.38	ug/L			06/20/14 06:35	1
Methylcyclohexane	ND		5.0	0.20	ug/L			06/20/14 06:35	1
Chlorodibromomethane	ND		1.0	0.25	ug/L			06/20/14 06:35	1

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TestAmerica Canton

Client Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Client Sample ID: MW-4

Lab Sample ID: 240-38499-5

Date Collected: 06/11/14 16:50

Matrix: Water

Date Received: 06/13/14 09:20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		70 - 130		06/20/14 06:35	1
4-Bromofluorobenzene (Surr)	92		70 - 130		06/20/14 06:35	1
Toluene-d8 (Surr)	113		70 - 130		06/20/14 06:35	1
Dibromofluoromethane (Surr)	99		70 - 130		06/20/14 06:35	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	37		0.50	0.070	ug/L			06/20/14 16:42	1
Ethane	ND		0.50	0.19	ug/L			06/20/14 16:42	1
Ethylene	ND		0.50	0.18	ug/L			06/20/14 16:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,1-Trifluoroethane	99		66 - 132		06/20/14 16:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND	H	0.10		mg/L			06/13/14 19:48	1
Alkalinity	94	B	5.0	1.9	mg/L			06/19/14 17:10	1
Chloride	25		1.0	0.40	mg/L			06/20/14 11:29	1
Sulfate	48		25	9.0	mg/L			06/23/14 11:14	5
Sulfide	ND		1.0		mg/L			06/17/14 12:14	1
Total Organic Carbon	1.2		1.0		mg/L			06/16/14 11:08	1

TestAmerica Canton

Client Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Client Sample ID: GW-DUP

Lab Sample ID: 240-38499-6

Date Collected: 06/11/14 19:00

Matrix: Water

Date Received: 06/13/14 09:20

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			06/20/14 07:02	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			06/20/14 07:02	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.33	ug/L			06/20/14 07:02	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			06/20/14 07:02	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			06/20/14 07:02	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			06/20/14 07:02	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			06/20/14 07:02	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			06/20/14 07:02	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			06/20/14 07:02	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			06/20/14 07:02	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			06/20/14 07:02	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			06/20/14 07:02	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			06/20/14 07:02	1
2-Hexanone	ND		10	1.3	ug/L			06/20/14 07:02	1
Acetone	ND		25	2.7	ug/L			06/20/14 07:02	1
Benzene	10		1.0	0.20	ug/L			06/20/14 07:02	1
Bromoform	ND		1.0	0.29	ug/L			06/20/14 07:02	1
Bromomethane	ND		1.0	0.35	ug/L			06/20/14 07:02	1
Carbon disulfide	ND		1.0	0.22	ug/L			06/20/14 07:02	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			06/20/14 07:02	1
Chlorobenzene	ND		1.0	0.18	ug/L			06/20/14 07:02	1
Chloroethane	ND		1.0	0.36	ug/L			06/20/14 07:02	1
Chloroform	ND		1.0	0.23	ug/L			06/20/14 07:02	1
Chloromethane	ND		1.0	0.36	ug/L			06/20/14 07:02	1
cis-1,2-Dichloroethene	0.47	J	1.0	0.21	ug/L			06/20/14 07:02	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			06/20/14 07:02	1
Cyclohexane	ND		5.0	0.22	ug/L			06/20/14 07:02	1
Dichlorobromomethane	ND		1.0	0.17	ug/L			06/20/14 07:02	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			06/20/14 07:02	1
Ethylbenzene	ND		1.0	0.19	ug/L			06/20/14 07:02	1
Ethylene Dibromide	ND		1.0	0.21	ug/L			06/20/14 07:02	1
Isopropylbenzene	ND		1.0	0.33	ug/L			06/20/14 07:02	1
Methyl acetate	ND		10	0.72	ug/L			06/20/14 07:02	1
2-Butanone (MEK)	ND		50	2.6	ug/L			06/20/14 07:02	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			06/20/14 07:02	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			06/20/14 07:02	1
Methylene Chloride	0.68	J	5.0	0.22	ug/L			06/20/14 07:02	1
Styrene	ND		1.0	0.28	ug/L			06/20/14 07:02	1
Tetrachloroethane	ND		1.0	0.14	ug/L			06/20/14 07:02	1
Toluene	ND		1.0	0.17	ug/L			06/20/14 07:02	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			06/20/14 07:02	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			06/20/14 07:02	1
Trichloroethene	0.24	J	1.0	0.20	ug/L			06/20/14 07:02	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			06/20/14 07:02	1
Vinyl chloride	0.97	J	1.0	0.18	ug/L			06/20/14 07:02	1
Xylenes, Total	ND		2.0	0.38	ug/L			06/20/14 07:02	1
Methylcyclohexane	ND		5.0	0.20	ug/L			06/20/14 07:02	1
Chlorodibromomethane	ND		1.0	0.25	ug/L			06/20/14 07:02	1

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TestAmerica Canton

Client Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Client Sample ID: GW-DUP

Lab Sample ID: 240-38499-6

Date Collected: 06/11/14 19:00

Matrix: Water

Date Received: 06/13/14 09:20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		70 - 130		06/20/14 07:02	1
4-Bromofluorobenzene (Surr)	92		70 - 130		06/20/14 07:02	1
Toluene-d8 (Surr)	116		70 - 130		06/20/14 07:02	1
Dibromofluoromethane (Surr)	97		70 - 130		06/20/14 07:02	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	1300		0.50	0.070	ug/L			06/20/14 16:54	1
Ethane	0.69		0.50	0.19	ug/L			06/20/14 16:54	1
Ethylene	ND		0.50	0.18	ug/L			06/20/14 16:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,1-Trifluoroethane	96		66 - 132		06/20/14 16:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND	H	0.10		mg/L			06/13/14 20:04	1
Alkalinity	340	B	5.0	1.9	mg/L			06/19/14 17:22	1
Chloride	3.8		1.0	0.40	mg/L			06/20/14 11:29	1
Sulfate	24		5.0	1.8	mg/L			06/23/14 09:36	1
Sulfide	ND		1.0		mg/L			06/17/14 12:23	1
Total Organic Carbon	3.6		1.0		mg/L			06/16/14 11:40	1

TestAmerica Canton

Client Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Client Sample ID: OW-13R

Lab Sample ID: 240-38499-7

Date Collected: 06/11/14 18:25

Matrix: Water

Date Received: 06/13/14 09:20

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			06/20/14 07:27	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			06/20/14 07:27	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.33	ug/L			06/20/14 07:27	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			06/20/14 07:27	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			06/20/14 07:27	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			06/20/14 07:27	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			06/20/14 07:27	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			06/20/14 07:27	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			06/20/14 07:27	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			06/20/14 07:27	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			06/20/14 07:27	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			06/20/14 07:27	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			06/20/14 07:27	1
2-Hexanone	ND		10	1.3	ug/L			06/20/14 07:27	1
Acetone	ND		25	2.7	ug/L			06/20/14 07:27	1
Benzene	9.8		1.0	0.20	ug/L			06/20/14 07:27	1
Bromoform	ND		1.0	0.29	ug/L			06/20/14 07:27	1
Bromomethane	ND		1.0	0.35	ug/L			06/20/14 07:27	1
Carbon disulfide	ND		1.0	0.22	ug/L			06/20/14 07:27	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			06/20/14 07:27	1
Chlorobenzene	ND		1.0	0.18	ug/L			06/20/14 07:27	1
Chloroethane	ND		1.0	0.36	ug/L			06/20/14 07:27	1
Chloroform	ND		1.0	0.23	ug/L			06/20/14 07:27	1
Chloromethane	ND		1.0	0.36	ug/L			06/20/14 07:27	1
cis-1,2-Dichloroethene	0.47	J	1.0	0.21	ug/L			06/20/14 07:27	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			06/20/14 07:27	1
Cyclohexane	ND		5.0	0.22	ug/L			06/20/14 07:27	1
Dichlorobromomethane	ND		1.0	0.17	ug/L			06/20/14 07:27	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			06/20/14 07:27	1
Ethylbenzene	ND		1.0	0.19	ug/L			06/20/14 07:27	1
Ethylene Dibromide	ND		1.0	0.21	ug/L			06/20/14 07:27	1
Isopropylbenzene	ND		1.0	0.33	ug/L			06/20/14 07:27	1
Methyl acetate	ND		10	0.72	ug/L			06/20/14 07:27	1
2-Butanone (MEK)	ND		50	2.6	ug/L			06/20/14 07:27	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			06/20/14 07:27	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			06/20/14 07:27	1
Methylene Chloride	0.43		5.0	0.22	ug/L			06/20/14 07:27	1
Styrene	ND		1.0	0.28	ug/L			06/20/14 07:27	1
Tetrachloroethane	ND		1.0	0.14	ug/L			06/20/14 07:27	1
Toluene	ND		1.0	0.17	ug/L			06/20/14 07:27	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			06/20/14 07:27	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			06/20/14 07:27	1
Trichloroethene	0.22	J	1.0	0.20	ug/L			06/20/14 07:27	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			06/20/14 07:27	1
Vinyl chloride	0.80	J	1.0	0.18	ug/L			06/20/14 07:27	1
Xylenes, Total	ND		2.0	0.38	ug/L			06/20/14 07:27	1
Methylcyclohexane	ND		5.0	0.20	ug/L			06/20/14 07:27	1
Chlorodibromomethane	ND		1.0	0.25	ug/L			06/20/14 07:27	1

5.04
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TestAmerica Canton

Client Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Client Sample ID: OW-13R

Lab Sample ID: 240-38499-7

Date Collected: 06/11/14 18:25

Matrix: Water

Date Received: 06/13/14 09:20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		70 - 130		06/20/14 07:27	1
4-Bromofluorobenzene (Surr)	96		70 - 130		06/20/14 07:27	1
Toluene-d8 (Surr)	113		70 - 130		06/20/14 07:27	1
Dibromofluoromethane (Surr)	99		70 - 130		06/20/14 07:27	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	1300		0.50	0.070	ug/L			06/20/14 17:06	1
Ethane	0.69		0.50	0.19	ug/L			06/20/14 17:06	1
Ethylene	ND		0.50	0.18	ug/L			06/20/14 17:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1, 1, 1-Trifluoroethane	94		66 - 132		06/20/14 17:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND	H	0.10		mg/L			06/13/14 20:21	1
Alkalinity	350	B	5.0	1.9	mg/L			06/19/14 17:35	1
Chloride	4.0		1.0	0.40	mg/L			06/20/14 11:29	1
Sulfate	25		5.0	1.8	mg/L			06/23/14 09:36	1
Sulfide	ND		1.0		mg/L			06/17/14 12:32	1
Total Organic Carbon	3.9		1.0		mg/L			06/16/14 11:51	1

TestAmerica Canton

Surrogate Summary

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (70-130)	BFB (70-130)	TOL (70-130)	DBFM (70-130)
240-38459-1	OW-22	106	91	101	108
240-38459-2	OW-21	106	93	101	104
240-38459-3	TRIP BLANK 1	107	93	102	106
240-38459-4	FIELD BLANK 1	109	92	103	110
240-38459-5	OW-18	106	91	100	107
240-38459-6	PUMP BLANK	107	90	102	105
240-38459-7	OW-19	107	94	100	107
240-38459-8	OW-5	105	90	102	105
240-38459-8 MS	OW-5	96	95	101	99
240-38459-8 MSD	OW-5	99	100	101	101
240-38499-1	TRIP BLANK 2	98	98	113	95
240-38499-2	OW-6	103	96	109	97
240-38499-3	OW-2	99	92	113	98
240-38499-4	FIELD BLANK 2	100	94	114	100
240-38499-5	MW-4	103	92	113	99
240-38499-6	GW-DUP	100	92	116	97
240-38499-7	OW-13R	103	96	113	99
LCS 490-170597/3	Lab Control Sample	99	96	101	98
LCS 490-170756/3	Lab Control Sample	97	96	101	100
LCS 490-170811/3	Lab Control Sample	96	97	103	101
LCS 490-170985/4	Lab Control Sample	103	96	103	99
LCSD 490-170597/4	Lab Control Sample Dup	98	98	102	100
LCSD 490-170811/4	Lab Control Sample Dup	97	99	101	97
MB 490-170597/7	Method Blank	107	92	101	105
MB 490-170756/6	Method Blank	105	93	102	107
MB 490-170811/7	Method Blank	99	97	111	97
MB 490-170985/7	Method Blank	101	95	112	98

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: RSK-175 - Dissolved Gases (GC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		Trifluoroeth (66-132)			
240-38459-1	OW-22	109			
240-38459-1 MS	OW-22	107			
240-38459-1 MSD	OW-22	106			
240-38459-2	OW-21	102			
240-38459-5	OW-18	95			
240-38459-7	OW-19	98			
240-38459-8	OW-5	101			
240-38459-8 MS	OW-5	99			
240-38459-8 MSD	OW-5	97			

TestAmerica Canton

Surrogate Summary

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Trifluoroeth (66-132)	
240-38499-2	OW-6	101	
240-38499-3	OW-2	100	
240-38499-5	MW-4	99	
240-38499-6	GW-DUP	96	
240-38499-7	OW-13R	94	
LCS 240-135539/5	Lab Control Sample	112	
LCS 240-135630/5	Lab Control Sample	111	
MB 240-135539/4	Method Blank	112	
MB 240-135630/4	Method Blank	114	
Surrogate Legend			
1,1,1-Trifluoroethane = 1,1,1-Trifluoroethane			

QC Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 490-170597/7

Matrix: Water

Analysis Batch: 170597

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			06/18/14 14:53	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			06/18/14 14:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.33	ug/L			06/18/14 14:53	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			06/18/14 14:53	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			06/18/14 14:53	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			06/18/14 14:53	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			06/18/14 14:53	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			06/18/14 14:53	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			06/18/14 14:53	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			06/18/14 14:53	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			06/18/14 14:53	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			06/18/14 14:53	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			06/18/14 14:53	1
2-Hexanone	ND		10	1.3	ug/L			06/18/14 14:53	1
Acetone	ND		25	2.7	ug/L			06/18/14 14:53	1
Benzene	ND		1.0	0.20	ug/L			06/18/14 14:53	1
Bromoform	ND		1.0	0.29	ug/L			06/18/14 14:53	1
Bromomethane	ND		1.0	0.35	ug/L			06/18/14 14:53	1
Carbon disulfide	ND		1.0	0.22	ug/L			06/18/14 14:53	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			06/18/14 14:53	1
Chlorobenzene	ND		1.0	0.18	ug/L			06/18/14 14:53	1
Chloroethane	ND		1.0	0.36	ug/L			06/18/14 14:53	1
Chloroform	ND		1.0	0.23	ug/L			06/18/14 14:53	1
Chloromethane	ND		1.0	0.36	ug/L			06/18/14 14:53	1
cis-1,2-Dichloroethene	ND		1.0	0.21	ug/L			06/18/14 14:53	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			06/18/14 14:53	1
Cyclohexane	ND		5.0	0.22	ug/L			06/18/14 14:53	1
Dichlorobromomethane	ND		1.0	0.17	ug/L			06/18/14 14:53	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			06/18/14 14:53	1
Ethylbenzene	ND		1.0	0.19	ug/L			06/18/14 14:53	1
Ethylene Dibromide	ND		1.0	0.21	ug/L			06/18/14 14:53	1
Isopropylbenzene	ND		1.0	0.33	ug/L			06/18/14 14:53	1
Methyl acetate	ND		10	0.72	ug/L			06/18/14 14:53	1
2-Butanone (MEK)	ND		50	2.6	ug/L			06/18/14 14:53	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			06/18/14 14:53	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			06/18/14 14:53	1
Methylene Chloride	ND		5.0	0.22	ug/L			06/18/14 14:53	1
Styrene	ND		1.0	0.28	ug/L			06/18/14 14:53	1
Tetrachloroethene	0.146	J	1.0	0.14	ug/L			06/18/14 14:53	1
Toluene	ND		1.0	0.17	ug/L			06/18/14 14:53	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			06/18/14 14:53	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			06/18/14 14:53	1
Trichloroethene	ND		1.0	0.20	ug/L			06/18/14 14:53	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			06/18/14 14:53	1
Vinyl chloride	ND		1.0	0.18	ug/L			06/18/14 14:53	1
Xylenes, Total	ND		2.0	0.38	ug/L			06/18/14 14:53	1
Methylcyclohexane	ND		5.0	0.20	ug/L			06/18/14 14:53	1
Chlorodibromomethane	ND		1.0	0.25	ug/L			06/18/14 14:53	1

TestAmerica Canton

QC Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 490-170597/7

Matrix: Water

Analysis Batch: 170597

Client Sample ID: Method Blank

Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		70 - 130		06/18/14 14:53	1
4-Bromofluorobenzene (Surr)	92		70 - 130		06/18/14 14:53	1
Toluene-d8 (Surr)	101		70 - 130		06/18/14 14:53	1
Dibromofluoromethane (Surr)	105		70 - 130		06/18/14 14:53	1

Lab Sample ID: LCS 490-170597/3

Matrix: Water

Analysis Batch: 170597

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	50.0	48.5		ug/L		97	78 - 135
1,1,2,2-Tetrachloroethane	50.0	49.4		ug/L		99	69 - 131
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	49.2		ug/L		98	77 - 129
1,1,2-Trichloroethane	50.0	50.1		ug/L		100	80 - 124
1,1-Dichloroethane	50.0	46.1		ug/L		92	78 - 125
1,1-Dichloroethene	50.0	48.2		ug/L		96	79 - 124
1,2,4-Trichlorobenzene	50.0	51.5		ug/L		103	63 - 133
1,2-Dibromo-3-Chloropropane	50.0	52.1		ug/L		104	54 - 125
1,2-Dichlorobenzene	50.0	51.0		ug/L		102	80 - 121
1,2-Dichloroethane	50.0	46.2		ug/L		92	77 - 121
1,2-Dichloropropane	50.0	46.8		ug/L		94	75 - 120
1,3-Dichlorobenzene	50.0	51.0		ug/L		102	80 - 122
1,4-Dichlorobenzene	50.0	48.5		ug/L		97	80 - 120
2-Hexanone	250	262		ug/L		105	60 - 142
Acetone	250	227		ug/L		91	54 - 145
Benzene	50.0	48.0		ug/L		96	80 - 121
Bromoform	50.0	53.7		ug/L		107	46 - 145
Bromomethane	50.0	64.6		ug/L		129	41 - 150
Carbon disulfide	50.0	47.7		ug/L		95	77 - 126
Carbon tetrachloride	50.0	50.8		ug/L		102	64 - 147
Chlorobenzene	50.0	48.5		ug/L		97	80 - 120
Chloroethane	50.0	48.2		ug/L		96	72 - 120
Chloroform	50.0	47.9		ug/L		96	73 - 129
Chloromethane	50.0	54.9		ug/L		110	12 - 150
cis-1,2-Dichloroethene	50.0	45.8		ug/L		92	76 - 125
cis-1,3-Dichloropropene	50.0	50.4		ug/L		101	74 - 140
Cyclohexane	50.0	47.7		ug/L		95	73 - 122
Dichlorobromomethane	50.0	49.0		ug/L		98	75 - 129
Dichlorodifluoromethane	50.0	50.3		ug/L		101	37 - 127
Ethylbenzene	50.0	49.4		ug/L		99	80 - 130
Ethylene Dibromide	50.0	53.8		ug/L		108	80 - 129
m-Xylene & p-Xylene	50.0	50.3		ug/L		101	80 - 141
Isopropylbenzene	50.0	52.2		ug/L		104	80 - 141
Methyl acetate	250	258		ug/L		103	64 - 150
2-Butanone (MEK)	250	237		ug/L		95	62 - 133
4-Methyl-2-pentanone (MIBK)	250	258		ug/L		103	60 - 137
Methyl tert-butyl ether	50.0	47.3		ug/L		95	72 - 133

TestAmerica Canton

QC Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 490-170597/3

Matrix: Water

Analysis Batch: 170597

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	50.0	45.7		ug/L		91	79 - 123
o-Xylene	50.0	49.9		ug/L		100	80 - 127
Styrene	50.0	52.4		ug/L		105	80 - 127
Tetrachloroethene	50.0	49.3		ug/L		99	80 - 126
Toluene	50.0	47.7		ug/L		95	80 - 126
trans-1,2-Dichloroethene	50.0	45.3		ug/L		91	79 - 126
trans-1,3-Dichloropropene	50.0	53.0		ug/L		106	63 - 134
Trichloroethene	50.0	49.5		ug/L		99	80 - 123
Trichlorofluoromethane	50.0	50.7		ug/L		101	65 - 124
Vinyl chloride	50.0	49.5		ug/L		99	68 - 120
Xylenes, Total	100	100		ug/L		100	80 - 132
Methylcyclohexane	50.0	51.0		ug/L		102	71 - 129
Chlorodibromomethane	50.0	52.7		ug/L		105	69 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		70 - 130
4-Bromofluorobenzene (Surr)	96		70 - 130
Toluene-d8 (Surr)	101		70 - 130
Dibromofluoromethane (Surr)	98		70 - 130

Lab Sample ID: LCSD 490-170597/4

Matrix: Water

Analysis Batch: 170597

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	50.0	48.4		ug/L		97	78 - 135	0	17
1,1,2,2-Tetrachloroethane	50.0	48.4		ug/L		97	69 - 131	2	20
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	48.8		ug/L		98	77 - 129	1	18
1,1,2-Trichloroethane	50.0	49.6		ug/L		99	80 - 124	1	15
1,1-Dichloroethane	50.0	45.1		ug/L		90	78 - 125	2	17
1,1-Dichloroethene	50.0	47.7		ug/L		95	79 - 124	1	17
1,2,4-Trichlorobenzene	50.0	51.2		ug/L		102	63 - 133	1	19
1,2-Dibromo-3-Chloropropane	50.0	49.5		ug/L		99	54 - 125	5	24
1,2-Dichlorobenzene	50.0	51.4		ug/L		103	80 - 121	1	15
1,2-Dichloroethane	50.0	45.9		ug/L		92	77 - 121	1	17
1,2-Dichloropropane	50.0	46.7		ug/L		93	75 - 120	0	17
1,3-Dichlorobenzene	50.0	51.4		ug/L		103	80 - 122	1	15
1,4-Dichlorobenzene	50.0	48.6		ug/L		97	80 - 120	0	15
2-Hexanone	250	255		ug/L		102	60 - 142	3	15
Acetone	250	222		ug/L		89	54 - 145	2	21
Benzene	50.0	47.3		ug/L		95	80 - 121	1	17
Bromoform	50.0	53.0		ug/L		106	46 - 145	1	16
Bromomethane	50.0	66.7		ug/L		133	41 - 150	3	50
Carbon disulfide	50.0	47.2		ug/L		94	77 - 126	1	21
Carbon tetrachloride	50.0	50.0		ug/L		100	64 - 147	1	19
Chlorobenzene	50.0	47.8		ug/L		96	80 - 120	1	14
Chloroethane	50.0	47.0		ug/L		94	72 - 120	3	20

TestAmerica Canton

QC Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 490-170597/4

Matrix: Water

Analysis Batch: 170597

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloroform	50.0	47.9		ug/L		96	73 - 129	0	18
Chloromethane	50.0	55.5		ug/L		111	12 - 150	1	31
cis-1,2-Dichloroethene	50.0	45.1		ug/L		90	76 - 125	2	17
cis-1,3-Dichloropropene	50.0	50.0		ug/L		100	74 - 140	1	15
Cyclohexane	50.0	47.6		ug/L		95	73 - 122	0	16
Dichlorobromomethane	50.0	48.6		ug/L		97	75 - 129	1	18
Dichlorodifluoromethane	50.0	50.1		ug/L		100	37 - 127	0	18
Ethylbenzene	50.0	48.8		ug/L		98	80 - 130	1	15
Ethylene Dibromide	50.0	53.1		ug/L		106	80 - 129	1	15
m-Xylene & p-Xylene	50.0	49.9		ug/L		100	80 - 141	1	16
Isopropylbenzene	50.0	52.0		ug/L		104	80 - 141	0	16
Methyl acetate	250	249		ug/L		99	64 - 150	4	31
2-Butanone (MEK)	250	236		ug/L		94	62 - 133	1	19
4-Methyl-2-pentanone (MIBK)	250	253		ug/L		101	60 - 137	2	17
Methyl tert-butyl ether	50.0	46.5		ug/L		93	72 - 133	2	16
Methylene Chloride	50.0	45.0		ug/L		90	79 - 123	1	17
o-Xylene	50.0	49.8		ug/L		100	80 - 127	0	14
Styrene	50.0	52.0		ug/L		104	80 - 127	1	24
Tetrachloroethene	50.0	49.1		ug/L		98	80 - 126	0	16
Toluene	50.0	47.4		ug/L		95	80 - 126	1	15
trans-1,2-Dichloroethene	50.0	45.0		ug/L		90	79 - 126	1	16
trans-1,3-Dichloropropene	50.0	52.0		ug/L		104	63 - 134	2	14
Trichloroethene	50.0	49.7		ug/L		99	80 - 123	0	17
Trichlorofluoromethane	50.0	49.8		ug/L		100	65 - 124	2	18
Vinyl chloride	50.0	49.2		ug/L		98	68 - 120	1	17
Xylenes, Total	100	99.7		ug/L		100	80 - 132	1	15
Methylcyclohexane	50.0	51.0		ug/L		102	71 - 129	0	19
Chlorodibromomethane	50.0	51.9		ug/L		104	69 - 133	2	15

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		70 - 130
4-Bromofluorobenzene (Surr)	98		70 - 130
Toluene-d8 (Surr)	102		70 - 130
Dibromofluoromethane (Surr)	100		70 - 130

Lab Sample ID: MB 490-170756/6

Matrix: Water

Analysis Batch: 170756

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			06/19/14 02:54	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			06/19/14 02:54	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.33	ug/L			06/19/14 02:54	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			06/19/14 02:54	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			06/19/14 02:54	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			06/19/14 02:54	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			06/19/14 02:54	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			06/19/14 02:54	1

TestAmerica Canton

QC Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 490-170756/6

Matrix: Water

Analysis Batch: 170756

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			06/19/14 02:54	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			06/19/14 02:54	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			06/19/14 02:54	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			06/19/14 02:54	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			06/19/14 02:54	1
2-Hexanone	ND		10	1.3	ug/L			06/19/14 02:54	1
Acetone	ND		25	2.7	ug/L			06/19/14 02:54	1
Benzene	ND		1.0	0.20	ug/L			06/19/14 02:54	1
Bromoform	ND		1.0	0.29	ug/L			06/19/14 02:54	1
Bromomethane	ND		1.0	0.35	ug/L			06/19/14 02:54	1
Carbon disulfide	ND		1.0	0.22	ug/L			06/19/14 02:54	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			06/19/14 02:54	1
Chlorobenzene	ND		1.0	0.18	ug/L			06/19/14 02:54	1
Chloroethane	ND		1.0	0.36	ug/L			06/19/14 02:54	1
Chloroform	ND		1.0	0.23	ug/L			06/19/14 02:54	1
Chloromethane	ND		1.0	0.36	ug/L			06/19/14 02:54	1
cis-1,2-Dichloroethene	ND		1.0	0.21	ug/L			06/19/14 02:54	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			06/19/14 02:54	1
Cyclohexane	ND		5.0	0.22	ug/L			06/19/14 02:54	1
Dichlorobromomethane	ND		1.0	0.17	ug/L			06/19/14 02:54	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			06/19/14 02:54	1
Ethylbenzene	ND		1.0	0.19	ug/L			06/19/14 02:54	1
Ethylene Dibromide	ND		1.0	0.21	ug/L			06/19/14 02:54	1
Isopropylbenzene	ND		1.0	0.33	ug/L			06/19/14 02:54	1
Methyl acetate	ND		10	0.72	ug/L			06/19/14 02:54	1
2-Butanone (MEK)	ND		50	2.6	ug/L			06/19/14 02:54	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			06/19/14 02:54	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			06/19/14 02:54	1
Methylene Chloride	ND		5.0	0.22	ug/L			06/19/14 02:54	1
Styrene	ND		1.0	0.28	ug/L			06/19/14 02:54	1
Tetrachloroethene	ND		1.0	0.14	ug/L			06/19/14 02:54	1
Toluene	ND		1.0	0.17	ug/L			06/19/14 02:54	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			06/19/14 02:54	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			06/19/14 02:54	1
Trichloroethene	ND		1.0	0.20	ug/L			06/19/14 02:54	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			06/19/14 02:54	1
Vinyl chloride	ND		1.0	0.18	ug/L			06/19/14 02:54	1
Xylenes, Total	ND		2.0	0.38	ug/L			06/19/14 02:54	1
Methylcyclohexane	ND		5.0	0.20	ug/L			06/19/14 02:54	1
Chlorodibromomethane	ND		1.0	0.25	ug/L			06/19/14 02:54	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		70 - 130		06/19/14 02:54	1
4-Bromofluorobenzene (Surr)	93		70 - 130		06/19/14 02:54	1
Toluene-d8 (Surr)	102		70 - 130		06/19/14 02:54	1
Dibromofluoromethane (Surr)	107		70 - 130		06/19/14 02:54	1

TestAmerica Canton

QC Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 490-170756/3

Matrix: Water

Analysis Batch: 170756

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	50.0	47.6		ug/L		95	78 - 135
1,1,2,2-Tetrachloroethane	50.0	46.7		ug/L		93	69 - 131
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	47.3		ug/L		95	77 - 129
1,1,2-Trichloroethane	50.0	49.3		ug/L		99	80 - 124
1,1-Dichloroethane	50.0	46.0		ug/L		92	78 - 125
1,1-Dichloroethene	50.0	47.0		ug/L		94	79 - 124
1,2,4-Trichlorobenzene	50.0	48.3		ug/L		97	63 - 133
1,2-Dibromo-3-Chloropropane	50.0	48.2		ug/L		96	54 - 125
1,2-Dichlorobenzene	50.0	49.5		ug/L		99	80 - 121
1,2-Dichloroethane	50.0	46.2		ug/L		92	77 - 121
1,2-Dichloropropane	50.0	45.9		ug/L		92	75 - 120
1,3-Dichlorobenzene	50.0	49.2		ug/L		98	80 - 122
1,4-Dichlorobenzene	50.0	46.6		ug/L		93	80 - 120
2-Hexanone	250	245		ug/L		98	60 - 142
Acetone	250	226		ug/L		91	54 - 145
Benzene	50.0	47.0		ug/L		94	80 - 121
Bromoform	50.0	51.1		ug/L		102	46 - 145
Bromomethane	50.0	66.0		ug/L		132	41 - 150
Carbon disulfide	50.0	46.3		ug/L		93	77 - 126
Carbon tetrachloride	50.0	48.9		ug/L		98	64 - 147
Chlorobenzene	50.0	47.0		ug/L		94	80 - 120
Chloroethane	50.0	46.8		ug/L		94	72 - 120
Chloroform	50.0	47.5		ug/L		95	73 - 129
Chloromethane	50.0	54.3		ug/L		109	12 - 150
cis-1,2-Dichloroethene	50.0	44.1		ug/L		88	76 - 125
cis-1,3-Dichloropropene	50.0	47.9		ug/L		96	74 - 140
Cyclohexane	50.0	46.5		ug/L		93	73 - 122
Dichlorobromomethane	50.0	48.2		ug/L		96	75 - 129
Dichlorodifluoromethane	50.0	48.5		ug/L		97	37 - 127
Ethylbenzene	50.0	47.9		ug/L		96	80 - 130
Ethylene Dibromide	50.0	51.4		ug/L		103	80 - 129
m-Xylene & p-Xylene	50.0	48.6		ug/L		97	80 - 141
Isopropylbenzene	50.0	50.2		ug/L		100	80 - 141
Methyl acetate	250	248		ug/L		99	64 - 150
2-Butanone (MEK)	250	236		ug/L		94	62 - 133
4-Methyl-2-pentanone (MIBK)	250	246		ug/L		99	60 - 137
Methyl tert-butyl ether	50.0	45.9		ug/L		92	72 - 133
Methylene Chloride	50.0	45.0		ug/L		90	79 - 123
o-Xylene	50.0	48.8		ug/L		98	80 - 127
Styrene	50.0	50.8		ug/L		102	80 - 127
Tetrachloroethene	50.0	47.3		ug/L		95	80 - 126
Toluene	50.0	46.2		ug/L		92	80 - 126
trans-1,2-Dichloroethene	50.0	44.3		ug/L		89	79 - 126
trans-1,3-Dichloropropene	50.0	50.2		ug/L		100	63 - 134
Trichloroethene	50.0	48.7		ug/L		97	80 - 123
Trichlorofluoromethane	50.0	49.5		ug/L		99	65 - 124
Vinyl chloride	50.0	48.6		ug/L		97	68 - 120

TestAmerica Canton

QC Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 490-170756/3

Matrix: Water

Analysis Batch: 170756

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Xylenes, Total	100	97.4		ug/L		97	80 - 132
Methylcyclohexane	50.0	49.0		ug/L		98	71 - 129
Chlorodibromomethane	50.0	51.3		ug/L		103	69 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		70 - 130
4-Bromofluorobenzene (Surr)	96		70 - 130
Toluene-d8 (Surr)	101		70 - 130
Dibromofluoromethane (Surr)	100		70 - 130

Lab Sample ID: 240-38459-8 MS

Matrix: Water

Analysis Batch: 170756

Client Sample ID: OW-5

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	ND		50.0	52.9		ug/L		106	76 - 149
1,1,1,2-Tetrachloroethane	ND		50.0	47.4		ug/L		95	56 - 143
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		50.0	53.1		ug/L		106	72 - 148
1,1,2-Trichloroethane	ND		50.0	51.3		ug/L		103	74 - 134
1,1-Dichloroethane	ND		50.0	49.1		ug/L		98	71 - 139
1,1-Dichloroethene	ND		50.0	50.4		ug/L		101	70 - 142
1,2,4-Trichlorobenzene	ND		50.0	48.2		ug/L		96	60 - 136
1,2-Dibromo-3-Chloropropane	ND		50.0	47.1		ug/L		94	52 - 126
1,2-Dichlorobenzene	ND		50.0	50.9		ug/L		102	79 - 128
1,2-Dichloroethane	ND		50.0	47.3		ug/L		95	64 - 136
1,2-Dichloropropane	ND		50.0	49.1		ug/L		98	67 - 131
1,3-Dichlorobenzene	ND		50.0	51.2		ug/L		102	77 - 131
1,4-Dichlorobenzene	ND		50.0	48.2		ug/L		96	78 - 126
2-Hexanone	ND		250	247		ug/L		99	50 - 150
Acetone	ND		250	230		ug/L		92	45 - 141
Benzene	0.32 J		50.0	50.0		ug/L		99	75 - 133
Bromoform	ND		50.0	53.5		ug/L		107	42 - 147
Bromomethane	ND		50.0	52.1		ug/L		104	16 - 163
Carbon disulfide	ND		50.0	44.9		ug/L		90	48 - 152
Carbon tetrachloride	ND		50.0	54.6		ug/L		109	62 - 164
Chlorobenzene	ND		50.0	50.4		ug/L		101	80 - 129
Chloroethane	ND		50.0	47.8		ug/L		96	58 - 137
Chloroform	ND		50.0	50.5		ug/L		101	66 - 138
Chloromethane	ND		50.0	48.6		ug/L		97	10 - 169
cis-1,2-Dichloroethene	10		50.0	55.5		ug/L		90	68 - 138
cis-1,3-Dichloropropene	ND		50.0	48.8		ug/L		98	71 - 141
Cyclohexane	ND		50.0	49.4		ug/L		99	58 - 144
Dichlorobromomethane	ND		50.0	50.5		ug/L		101	70 - 140
Dichlorodifluoromethane	ND		50.0	42.8		ug/L		86	40 - 127
Ethylbenzene	ND		50.0	52.0		ug/L		104	79 - 139
Ethylene Dibromide	ND		50.0	53.1		ug/L		106	75 - 137
m-Xylene & p-Xylene	ND		50.0	52.5		ug/L		105	80 - 153

TestAmerica Canton

QC Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-38459-8 MS

Matrix: Water

Analysis Batch: 170756

Client Sample ID: OW-5

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Isopropylbenzene	ND		50.0	55.0		ug/L		110	80 - 153
Methyl acetate	ND		250	225		ug/L		90	30 - 165
2-Butanone (MEK)	ND		250	236		ug/L		95	50 - 138
4-Methyl-2-pentanone (MIBK)	ND		250	248		ug/L		99	50 - 147
Methyl tert-butyl ether	ND		50.0	46.7		ug/L		93	66 - 141
Methylene Chloride	ND		50.0	47.7		ug/L		95	64 - 139
o-Xylene	ND		50.0	52.1		ug/L		104	74 - 138
Styrene	ND		50.0	54.1		ug/L		108	61 - 148
Tetrachloroethene	4.0		50.0	55.0		ug/L		102	72 - 145
Toluene	ND		50.0	50.0		ug/L		100	75 - 136
trans-1,2-Dichloroethene	ND		50.0	46.8		ug/L		94	66 - 143
trans-1,3-Dichloropropene	ND		50.0	50.8		ug/L		102	59 - 135
Trichloroethene	1.5		50.0	53.6		ug/L		104	73 - 144
Trichlorofluoromethane	ND		50.0	52.7		ug/L		105	58 - 139
Vinyl chloride	ND		50.0	48.2		ug/L		96	56 - 129
Xylenes, Total	ND		100	105		ug/L		105	74 - 141
Methylcyclohexane	ND		50.0	53.1		ug/L		106	59 - 151
Chlorodibromomethane	ND		50.0	53.7		ug/L		107	66 - 140

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	96		70 - 130
4-Bromofluorobenzene (Surr)	95		70 - 130
Toluene-d8 (Surr)	101		70 - 130
Dibromofluoromethane (Surr)	99		70 - 130

Lab Sample ID: 240-38459-8 MSD

Matrix: Water

Analysis Batch: 170756

Client Sample ID: OW-5

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	ND		50.0	51.6		ug/L		103	76 - 149	3	17
1,1,2,2-Tetrachloroethane	ND		50.0	47.9		ug/L		96	56 - 143	1	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		50.0	51.1		ug/L		102	72 - 148	4	18
1,1,2-Trichloroethane	ND		50.0	49.1		ug/L		98	74 - 134	4	15
1,1-Dichloroethane	ND		50.0	47.9		ug/L		96	71 - 139	2	17
1,1-Dichloroethene	ND		50.0	49.7		ug/L		99	70 - 142	1	17
1,2,4-Trichlorobenzene	ND		50.0	49.5		ug/L		99	60 - 136	3	19
1,2-Dibromo-3-Chloropropane	ND		50.0	47.7		ug/L		95	52 - 126	1	24
1,2-Dichlorobenzene	ND		50.0	51.2		ug/L		102	79 - 128	1	15
1,2-Dichloroethane	ND		50.0	46.4		ug/L		93	64 - 136	2	17
1,2-Dichloropropane	ND		50.0	48.0		ug/L		96	67 - 131	2	17
1,3-Dichlorobenzene	ND		50.0	51.7		ug/L		103	77 - 131	1	15
1,4-Dichlorobenzene	ND		50.0	48.2		ug/L		96	78 - 126	0	15
2-Hexanone	ND		250	244		ug/L		98	50 - 150	1	15
Acetone	ND		250	217		ug/L		87	45 - 141	6	21
Benzene	0.32	J	50.0	49.4		ug/L		98	75 - 133	1	17
Bromoform	ND		50.0	51.0		ug/L		102	42 - 147	5	16

TestAmerica Canton

QC Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-38459-8 MSD

Matrix: Water

Analysis Batch: 170756

Client Sample ID: OW-5

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromomethane	ND		50.0	58.4		ug/L		117	16 - 163	11	50
Carbon disulfide	ND		50.0	43.8		ug/L		88	48 - 152	2	21
Carbon tetrachloride	ND		50.0	53.7		ug/L		107	62 - 164	2	19
Chlorobenzene	ND		50.0	48.6		ug/L		97	80 - 129	4	14
Chloroethane	ND		50.0	46.5		ug/L		93	58 - 137	3	20
Chloroform	ND		50.0	50.0		ug/L		100	66 - 138	1	18
Chloromethane	ND		50.0	48.8		ug/L		98	10 - 169	1	31
cis-1,2-Dichloroethene	10		50.0	55.0		ug/L		89	68 - 138	1	17
cis-1,3-Dichloropropene	ND		50.0	47.1		ug/L		94	71 - 141	4	15
Cyclohexane	ND		50.0	48.7		ug/L		97	58 - 144	1	16
Dichlorobromomethane	ND		50.0	50.1		ug/L		100	70 - 140	1	18
Dichlorodifluoromethane	ND		50.0	41.5		ug/L		83	40 - 127	3	18
Ethylbenzene	ND		50.0	50.3		ug/L		101	79 - 139	3	15
Ethylene Dibromide	ND		50.0	51.4		ug/L		103	75 - 137	3	15
m-Xylene & p-Xylene	ND		50.0	51.3		ug/L		103	80 - 153	2	16
Isopropylbenzene	ND		50.0	53.1		ug/L		106	80 - 153	4	16
Methyl acetate	ND		250	214		ug/L		86	30 - 165	5	31
2-Butanone (MEK)	ND		250	230		ug/L		92	50 - 138	3	19
4-Methyl-2-pentanone (MIBK)	ND		250	239		ug/L		95	50 - 147	4	17
Methyl tert-butyl ether	ND		50.0	45.8		ug/L		92	66 - 141	2	16
Methylene Chloride	ND		50.0	46.4		ug/L		93	64 - 139	3	17
o-Xylene	ND		50.0	50.9		ug/L		102	74 - 138	2	14
Styrene	ND		50.0	53.1		ug/L		106	61 - 148	2	24
Tetrachloroethene	4.0		50.0	53.9		ug/L		100	72 - 145	2	16
Toluene	ND		50.0	48.1		ug/L		96	75 - 136	4	15
trans-1,2-Dichloroethene	ND		50.0	46.0		ug/L		92	66 - 143	2	16
trans-1,3-Dichloropropene	ND		50.0	49.5		ug/L		99	59 - 135	3	14
Trichloroethene	1.5		50.0	52.8		ug/L		103	73 - 144	2	17
Trichlorofluoromethane	ND		50.0	51.3		ug/L		103	58 - 139	3	18
Vinyl chloride	ND		50.0	47.5		ug/L		95	56 - 129	1	17
Xylenes, Total	ND		100	102		ug/L		102	74 - 141	2	15
Methylcyclohexane	ND		50.0	51.0		ug/L		102	59 - 151	4	19
Chlorodibromomethane	ND		50.0	51.7		ug/L		103	66 - 140	4	15

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		70 - 130
4-Bromofluorobenzene (Surr)	100		70 - 130
Toluene-d8 (Surr)	101		70 - 130
Dibromofluoromethane (Surr)	101		70 - 130

Lab Sample ID: MB 490-170811/7

Matrix: Water

Analysis Batch: 170811

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			06/19/14 12:11	1
1,1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			06/19/14 12:11	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.33	ug/L			06/19/14 12:11	1

TestAmerica Canton

QC Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 490-170811/7

Matrix: Water

Analysis Batch: 170811

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			06/19/14 12:11	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			06/19/14 12:11	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			06/19/14 12:11	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			06/19/14 12:11	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			06/19/14 12:11	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			06/19/14 12:11	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			06/19/14 12:11	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			06/19/14 12:11	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			06/19/14 12:11	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			06/19/14 12:11	1
2-Hexanone	ND		10	1.3	ug/L			06/19/14 12:11	1
Acetone	ND		25	2.7	ug/L			06/19/14 12:11	1
Benzene	ND		1.0	0.20	ug/L			06/19/14 12:11	1
Bromoform	ND		1.0	0.29	ug/L			06/19/14 12:11	1
Bromomethane	ND		1.0	0.35	ug/L			06/19/14 12:11	1
Carbon disulfide	ND		1.0	0.22	ug/L			06/19/14 12:11	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			06/19/14 12:11	1
Chlorobenzene	ND		1.0	0.18	ug/L			06/19/14 12:11	1
Chloroethane	ND		1.0	0.36	ug/L			06/19/14 12:11	1
Chloroform	ND		1.0	0.23	ug/L			06/19/14 12:11	1
Chloromethane	ND		1.0	0.36	ug/L			06/19/14 12:11	1
cis-1,2-Dichloroethene	ND		1.0	0.21	ug/L			06/19/14 12:11	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			06/19/14 12:11	1
Cyclohexane	ND		5.0	0.22	ug/L			06/19/14 12:11	1
Dichlorobromomethane	ND		1.0	0.17	ug/L			06/19/14 12:11	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			06/19/14 12:11	1
Ethylbenzene	ND		1.0	0.19	ug/L			06/19/14 12:11	1
Ethylene Dibromide	ND		1.0	0.21	ug/L			06/19/14 12:11	1
Isopropylbenzene	ND		1.0	0.33	ug/L			06/19/14 12:11	1
Methyl acetate	ND		10	0.72	ug/L			06/19/14 12:11	1
2-Butanone (MEK)	ND		50	2.6	ug/L			06/19/14 12:11	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			06/19/14 12:11	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			06/19/14 12:11	1
Methylene Chloride	ND		5.0	0.22	ug/L			06/19/14 12:11	1
Styrene	ND		1.0	0.28	ug/L			06/19/14 12:11	1
Tetrachloroethene	ND		1.0	0.14	ug/L			06/19/14 12:11	1
Toluene	ND		1.0	0.17	ug/L			06/19/14 12:11	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			06/19/14 12:11	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			06/19/14 12:11	1
Trichloroethene	ND		1.0	0.20	ug/L			06/19/14 12:11	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			06/19/14 12:11	1
Vinyl chloride	ND		1.0	0.18	ug/L			06/19/14 12:11	1
Xylenes, Total	ND		2.0	0.38	ug/L			06/19/14 12:11	1
Methylcyclohexane	ND		5.0	0.20	ug/L			06/19/14 12:11	1
Chlorodibromomethane	ND		1.0	0.25	ug/L			06/19/14 12:11	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		70 - 130		06/19/14 12:11	1

TestAmerica Canton

QC Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 490-170811/7

Matrix: Water

Analysis Batch: 170811

Client Sample ID: Method Blank

Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130		06/19/14 12:11	1
Toluene-d8 (Surr)	111		70 - 130		06/19/14 12:11	1
Dibromofluoromethane (Surr)	97		70 - 130		06/19/14 12:11	1

Lab Sample ID: LCS 490-170811/3

Matrix: Water

Analysis Batch: 170811

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	50.0	50.8		ug/L		102	78 - 135
1,1,2,2-Tetrachloroethane	50.0	55.1		ug/L		110	69 - 131
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	52.0		ug/L		104	77 - 129
1,1,2-Trichloroethane	50.0	49.9		ug/L		100	80 - 124
1,1-Dichloroethane	50.0	51.8		ug/L		104	78 - 125
1,1-Dichloroethene	50.0	53.2		ug/L		106	79 - 124
1,2,4-Trichlorobenzene	50.0	51.0		ug/L		102	63 - 133
1,2-Dibromo-3-Chloropropane	50.0	45.7		ug/L		91	54 - 125
1,2-Dichlorobenzene	50.0	51.7		ug/L		103	80 - 121
1,2-Dichloroethane	50.0	50.7		ug/L		101	77 - 121
1,2-Dichloropropane	50.0	51.3		ug/L		103	75 - 120
1,3-Dichlorobenzene	50.0	51.0		ug/L		102	80 - 122
1,4-Dichlorobenzene	50.0	51.4		ug/L		103	80 - 120
2-Hexanone	250	287		ug/L		115	60 - 142
Acetone	250	251		ug/L		100	54 - 145
Benzene	50.0	51.9		ug/L		104	80 - 121
Bromoform	50.0	54.9		ug/L		110	46 - 145
Bromomethane	50.0	40.8		ug/L		82	41 - 150
Carbon disulfide	50.0	53.0		ug/L		106	77 - 126
Carbon tetrachloride	50.0	52.5		ug/L		105	64 - 147
Chlorobenzene	50.0	52.2		ug/L		104	80 - 120
Chloroethane	50.0	54.5		ug/L		109	72 - 120
Chloroform	50.0	53.3		ug/L		107	73 - 129
Chloromethane	50.0	50.7		ug/L		101	12 - 150
cis-1,2-Dichloroethene	50.0	49.9		ug/L		100	76 - 125
cis-1,3-Dichloropropene	50.0	53.7		ug/L		107	74 - 140
Cyclohexane	50.0	50.0		ug/L		100	73 - 122
Dichlorobromomethane	50.0	52.8		ug/L		106	75 - 129
Dichlorodifluoromethane	50.0	47.6		ug/L		95	37 - 127
Ethylbenzene	50.0	53.4		ug/L		107	80 - 130
Ethylene Dibromide	50.0	51.9		ug/L		104	80 - 129
m-Xylene & p-Xylene	50.0	52.3		ug/L		105	80 - 141
Isopropylbenzene	50.0	52.2		ug/L		104	80 - 141
Methyl acetate	250	250		ug/L		100	64 - 150
2-Butanone (MEK)	250	250		ug/L		100	62 - 133
4-Methyl-2-pentanone (MIBK)	250	252		ug/L		101	60 - 137
Methyl tert-butyl ether	50.0	51.3		ug/L		103	72 - 133
Methylene Chloride	50.0	51.5		ug/L		103	79 - 123

TestAmerica Canton

QC Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 490-170811/3

Matrix: Water

Analysis Batch: 170811

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
o-Xylene	50.0	52.0		ug/L		104	80 - 127
Styrene	50.0	52.6		ug/L		105	80 - 127
Tetrachloroethene	50.0	51.2		ug/L		102	80 - 126
Toluene	50.0	51.9		ug/L		104	80 - 126
trans-1,2-Dichloroethene	50.0	53.3		ug/L		107	79 - 126
trans-1,3-Dichloropropene	50.0	53.0		ug/L		106	63 - 134
Trichloroethene	50.0	50.4		ug/L		101	80 - 123
Trichlorofluoromethane	50.0	50.9		ug/L		102	65 - 124
Vinyl chloride	50.0	54.3		ug/L		109	68 - 120
Xylenes, Total	100	104		ug/L		104	80 - 132
Methylcyclohexane	50.0	50.8		ug/L		102	71 - 129
Chlorodibromomethane	50.0	55.8		ug/L		112	69 - 133

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	96		70 - 130
4-Bromofluorobenzene (Surr)	97		70 - 130
Toluene-d8 (Surr)	103		70 - 130
Dibromofluoromethane (Surr)	101		70 - 130

Lab Sample ID: LCSD 490-170811/4

Matrix: Water

Analysis Batch: 170811

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	50.0	48.3		ug/L		97	78 - 135	5	17
1,1,1,2-Tetrachloroethane	50.0	57.6		ug/L		115	69 - 131	5	20
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	51.0		ug/L		102	77 - 129	2	18
1,1,2-Trichloroethane	50.0	50.8		ug/L		102	80 - 124	2	15
1,1-Dichloroethane	50.0	49.8		ug/L		100	78 - 125	4	17
1,1-Dichloroethene	50.0	53.3		ug/L		107	79 - 124	0	17
1,2,4-Trichlorobenzene	50.0	53.4		ug/L		107	63 - 133	4	19
1,2-Dibromo-3-Chloropropane	50.0	47.3		ug/L		95	54 - 125	3	24
1,2-Dichlorobenzene	50.0	52.7		ug/L		105	80 - 121	2	15
1,2-Dichloroethane	50.0	49.8		ug/L		100	77 - 121	2	17
1,2-Dichloropropane	50.0	49.9		ug/L		100	75 - 120	3	17
1,3-Dichlorobenzene	50.0	52.4		ug/L		105	80 - 122	3	15
1,4-Dichlorobenzene	50.0	51.3		ug/L		103	80 - 120	0	15
2-Hexanone	250	302		ug/L		121	60 - 142	5	15
Acetone	250	253		ug/L		101	54 - 145	1	21
Benzene	50.0	50.0		ug/L		100	80 - 121	4	17
Bromoform	50.0	58.0		ug/L		116	46 - 145	5	16
Bromomethane	50.0	40.2		ug/L		80	41 - 150	2	50
Carbon disulfide	50.0	52.4		ug/L		105	77 - 126	1	21
Carbon tetrachloride	50.0	50.9		ug/L		102	64 - 147	3	19
Chlorobenzene	50.0	53.2		ug/L		106	80 - 120	2	14
Chloroethane	50.0	52.9		ug/L		106	72 - 120	3	20
Chloroform	50.0	51.2		ug/L		102	73 - 129	4	18

TestAmerica Canton

QC Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 490-170811/4

Matrix: Water

Analysis Batch: 170811

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloromethane	50.0	49.4		ug/L		99	12 - 150	3	31
cis-1,2-Dichloroethene	50.0	48.2		ug/L		96	76 - 125	3	17
cis-1,3-Dichloropropene	50.0	53.0		ug/L		106	74 - 140	1	15
Cyclohexane	50.0	48.1		ug/L		96	73 - 122	4	16
Dichlorobromomethane	50.0	51.4		ug/L		103	75 - 129	3	18
Dichlorodifluoromethane	50.0	45.9		ug/L		92	37 - 127	4	18
Ethylbenzene	50.0	54.2		ug/L		108	80 - 130	2	15
Ethylene Dibromide	50.0	54.3		ug/L		109	80 - 129	4	15
m-Xylene & p-Xylene	50.0	53.0		ug/L		106	80 - 141	1	16
Isopropylbenzene	50.0	53.1		ug/L		106	80 - 141	2	16
Methyl acetate	250	258		ug/L		103	64 - 150	3	31
2-Butanone (MEK)	250	251		ug/L		101	62 - 133	1	19
4-Methyl-2-pentanone (MIBK)	250	256		ug/L		102	60 - 137	1	17
Methyl tert-butyl ether	50.0	50.4		ug/L		101	72 - 133	2	16
Methylene Chloride	50.0	50.8		ug/L		102	79 - 123	1	17
o-Xylene	50.0	53.6		ug/L		107	80 - 127	3	14
Styrene	50.0	54.2		ug/L		108	80 - 127	3	24
Tetrachloroethene	50.0	51.8		ug/L		104	80 - 126	1	16
Toluene	50.0	51.6		ug/L		103	80 - 126	0	15
trans-1,2-Dichloroethene	50.0	51.1		ug/L		102	79 - 126	4	16
trans-1,3-Dichloropropene	50.0	53.1		ug/L		106	63 - 134	0	14
Trichloroethene	50.0	49.6		ug/L		99	80 - 123	2	17
Trichlorofluoromethane	50.0	49.8		ug/L		100	65 - 124	2	18
Vinyl chloride	50.0	52.0		ug/L		104	68 - 120	4	17
Xylenes, Total	100	107		ug/L		107	80 - 132	2	15
Methylcyclohexane	50.0	49.1		ug/L		98	71 - 129	3	19
Chlorodibromomethane	50.0	56.2		ug/L		112	69 - 133	1	15

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		70 - 130
4-Bromofluorobenzene (Surr)	99		70 - 130
Toluene-d8 (Surr)	101		70 - 130
Dibromofluoromethane (Surr)	97		70 - 130

Lab Sample ID: MB 490-170985/7

Matrix: Water

Analysis Batch: 170985

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			06/20/14 00:21	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			06/20/14 00:21	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.33	ug/L			06/20/14 00:21	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			06/20/14 00:21	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			06/20/14 00:21	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			06/20/14 00:21	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			06/20/14 00:21	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			06/20/14 00:21	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			06/20/14 00:21	1

TestAmerica Canton

QC Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 490-170985/7

Matrix: Water

Analysis Batch: 170985

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		1.0	0.20	ug/L			06/20/14 00:21	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			06/20/14 00:21	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			06/20/14 00:21	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			06/20/14 00:21	1
2-Hexanone	ND		10	1.3	ug/L			06/20/14 00:21	1
Acetone	ND		25	2.7	ug/L			06/20/14 00:21	1
Benzene	ND		1.0	0.20	ug/L			06/20/14 00:21	1
Bromoform	ND		1.0	0.29	ug/L			06/20/14 00:21	1
Bromomethane	ND		1.0	0.35	ug/L			06/20/14 00:21	1
Carbon disulfide	ND		1.0	0.22	ug/L			06/20/14 00:21	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			06/20/14 00:21	1
Chlorobenzene	ND		1.0	0.18	ug/L			06/20/14 00:21	1
Chloroethane	ND		1.0	0.36	ug/L			06/20/14 00:21	1
Chloroform	ND		1.0	0.23	ug/L			06/20/14 00:21	1
Chloromethane	ND		1.0	0.36	ug/L			06/20/14 00:21	1
cis-1,2-Dichloroethene	ND		1.0	0.21	ug/L			06/20/14 00:21	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			06/20/14 00:21	1
Cyclohexane	ND		5.0	0.22	ug/L			06/20/14 00:21	1
Dichlorobromomethane	ND		1.0	0.17	ug/L			06/20/14 00:21	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			06/20/14 00:21	1
Ethylbenzene	ND		1.0	0.19	ug/L			06/20/14 00:21	1
Ethylene Dibromide	ND		1.0	0.21	ug/L			06/20/14 00:21	1
Isopropylbenzene	ND		1.0	0.33	ug/L			06/20/14 00:21	1
Methyl acetate	ND		10	0.72	ug/L			06/20/14 00:21	1
2-Butanone (MEK)	ND		50	2.6	ug/L			06/20/14 00:21	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			06/20/14 00:21	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			06/20/14 00:21	1
Methylene Chloride	ND		5.0	0.22	ug/L			06/20/14 00:21	1
Styrene	ND		1.0	0.28	ug/L			06/20/14 00:21	1
Tetrachloroethene	ND		1.0	0.14	ug/L			06/20/14 00:21	1
Toluene	ND		1.0	0.17	ug/L			06/20/14 00:21	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			06/20/14 00:21	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			06/20/14 00:21	1
Trichloroethene	ND		1.0	0.20	ug/L			06/20/14 00:21	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			06/20/14 00:21	1
Vinyl chloride	ND		1.0	0.18	ug/L			06/20/14 00:21	1
Xylenes, Total	ND		2.0	0.38	ug/L			06/20/14 00:21	1
Methylcyclohexane	ND		5.0	0.20	ug/L			06/20/14 00:21	1
Chlorodibromomethane	ND		1.0	0.25	ug/L			06/20/14 00:21	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		70 - 130		06/20/14 00:21	1
4-Bromofluorobenzene (Surr)	95		70 - 130		06/20/14 00:21	1
Toluene-d8 (Surr)	112		70 - 130		06/20/14 00:21	1
Dibromofluoromethane (Surr)	98		70 - 130		06/20/14 00:21	1

TestAmerica Canton

QC Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 490-170985/4

Matrix: Water

Analysis Batch: 170985

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	50.0	50.8		ug/L		102	78 - 135
1,1,2,2-Tetrachloroethane	50.0	59.9		ug/L		120	69 - 131
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	52.3		ug/L		105	77 - 129
1,1,2-Trichloroethane	50.0	53.0		ug/L		106	80 - 124
1,1-Dichloroethane	50.0	53.8		ug/L		108	78 - 125
1,1-Dichloroethene	50.0	54.0		ug/L		108	79 - 124
1,2,4-Trichlorobenzene	50.0	54.0		ug/L		108	63 - 133
1,2-Dibromo-3-Chloropropane	50.0	47.1		ug/L		94	54 - 125
1,2-Dichlorobenzene	50.0	53.0		ug/L		106	80 - 121
1,2-Dichloroethane	50.0	54.2		ug/L		108	77 - 121
1,2-Dichloropropane	50.0	53.7		ug/L		107	75 - 120
1,3-Dichlorobenzene	50.0	52.7		ug/L		105	80 - 122
1,4-Dichlorobenzene	50.0	53.5		ug/L		107	80 - 120
2-Hexanone	250	315		ug/L		126	60 - 142
Acetone	250	291		ug/L		117	54 - 145
Benzene	50.0	53.5		ug/L		107	80 - 121
Bromoform	50.0	60.0		ug/L		120	46 - 145
Bromomethane	50.0	40.2		ug/L		80	41 - 150
Carbon disulfide	50.0	54.5		ug/L		109	77 - 126
Carbon tetrachloride	50.0	53.1		ug/L		106	64 - 147
Chlorobenzene	50.0	53.2		ug/L		106	80 - 120
Chloroethane	50.0	58.4		ug/L		117	72 - 120
Chloroform	50.0	55.1		ug/L		110	73 - 129
Chloromethane	50.0	53.7		ug/L		107	12 - 150
cis-1,2-Dichloroethene	50.0	51.8		ug/L		104	76 - 125
cis-1,3-Dichloropropene	50.0	54.5		ug/L		109	74 - 140
Cyclohexane	50.0	51.5		ug/L		103	73 - 122
Dichlorobromomethane	50.0	54.4		ug/L		109	75 - 129
Dichlorodifluoromethane	50.0	49.3		ug/L		99	37 - 127
Ethylbenzene	50.0	55.2		ug/L		110	80 - 130
Ethylene Dibromide	50.0	54.6		ug/L		109	80 - 129
m-Xylene & p-Xylene	50.0	53.0		ug/L		106	80 - 141
Isopropylbenzene	50.0	54.1		ug/L		108	80 - 141
Methyl acetate	250	288		ug/L		115	64 - 150
2-Butanone (MEK)	250	279		ug/L		112	62 - 133
4-Methyl-2-pentanone (MIBK)	250	278		ug/L		111	60 - 137
Methyl tert-butyl ether	50.0	55.2		ug/L		110	72 - 133
Methylene Chloride	50.0	54.0		ug/L		108	79 - 123
o-Xylene	50.0	54.8		ug/L		110	80 - 127
Styrene	50.0	55.9		ug/L		112	80 - 127
Tetrachloroethene	50.0	52.1		ug/L		104	80 - 126
Toluene	50.0	53.5		ug/L		107	80 - 126
trans-1,2-Dichloroethene	50.0	55.9		ug/L		112	79 - 126
trans-1,3-Dichloropropene	50.0	54.5		ug/L		109	63 - 134
Trichloroethene	50.0	52.2		ug/L		104	80 - 123
Trichlorofluoromethane	50.0	51.8		ug/L		104	65 - 124
Vinyl chloride	50.0	56.6		ug/L		113	68 - 120

TestAmerica Canton

QC Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 490-170985/4

Matrix: Water

Analysis Batch: 170985

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Xylenes, Total	100	108		ug/L		108	80 - 132
Methylcyclohexane	50.0	49.2		ug/L		98	71 - 129
Chlorodibromomethane	50.0	58.2		ug/L		116	69 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	103		70 - 130
4-Bromofluorobenzene (Surr)	96		70 - 130
Toluene-d8 (Surr)	103		70 - 130
Dibromofluoromethane (Surr)	99		70 - 130

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 240-135539/4

Matrix: Water

Analysis Batch: 135539

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		0.50	0.070	ug/L			06/20/14 12:37	1
Ethane	ND		0.50	0.19	ug/L			06/20/14 12:37	1
Ethylene	ND		0.50	0.18	ug/L			06/20/14 12:37	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,1-Trifluoroethane	112		66 - 132		06/20/14 12:37	1

Lab Sample ID: LCS 240-135539/5

Matrix: Water

Analysis Batch: 135539

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methane	116	98.6		ug/L		85	76 - 120
Ethane	218	217		ug/L		100	80 - 120
Ethylene	203	206		ug/L		101	81 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,1,1-Trifluoroethane	112		66 - 132

Lab Sample ID: 240-38459-8 MS

Matrix: Water

Analysis Batch: 135539

Client Sample ID: OW-5

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Methane	3.0		116	95.6		ug/L		80	34 - 153
Ethane	ND		218	200		ug/L		92	61 - 120
Ethylene	ND		203	183		ug/L		90	60 - 120

Surrogate	MS %Recovery	MS Qualifier	Limits
1,1,1-Trifluoroethane	99		66 - 132

TestAmerica Canton

QC Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: 240-38459-8 MSD

Matrix: Water

Analysis Batch: 135539

Client Sample ID: OW-5

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methane	3.0		116	100		ug/L		84	34 - 153	5	22
Ethane	ND		218	210		ug/L		97	61 - 120	5	21
Ethylene	ND		203	191		ug/L		94	60 - 120	4	17
		MSD	MSD								
Surrogate	%Recovery	Qualifier	Limits								
1,1,1-Trifluoroethane	97		66 - 132								

Lab Sample ID: MB 240-135630/4

Matrix: Water

Analysis Batch: 135630

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		0.50	0.070	ug/L			06/21/14 13:08	1
Ethane	ND		0.50	0.19	ug/L			06/21/14 13:08	1
Ethylene	ND		0.50	0.18	ug/L			06/21/14 13:08	1
		MB	MB						
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1-Trifluoroethane	114		66 - 132					06/21/14 13:08	1

Lab Sample ID: LCS 240-135630/5

Matrix: Water

Analysis Batch: 135630

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methane	116	101		ug/L		87	76 - 120
Ethane	218	226		ug/L		104	80 - 120
Ethylene	203	210		ug/L		103	81 - 120
		LCS	LCS				
Surrogate	%Recovery	Qualifier	Limits				
1,1,1-Trifluoroethane	111		66 - 132				

Lab Sample ID: 240-38459-1 MS

Matrix: Water

Analysis Batch: 135630

Client Sample ID: OW-22

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Methane	1400		347	1650		ug/L		78	34 - 153
Ethane	ND		653	648		ug/L		99	61 - 120
Ethylene	ND		610	600		ug/L		98	60 - 120
		MS	MS						
Surrogate	%Recovery	Qualifier	Limits						
1,1,1-Trifluoroethane	107		66 - 132						

TestAmerica Canton

QC Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: 240-38459-1 MSD

Matrix: Water

Analysis Batch: 135630

Client Sample ID: OW-22

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methane	1400		347	1740		ug/L		105	34 - 153	5	22
Ethane	ND		653	662		ug/L		101	61 - 120	2	21
Ethylene	ND		610	608		ug/L		100	60 - 120	1	17
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1,1,1-Trifluoroethane	106		66 - 132								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-134335/27

Matrix: Water

Analysis Batch: 134335

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.10		mg/L			06/12/14 20:30	1

Lab Sample ID: LCS 240-134335/28

Matrix: Water

Analysis Batch: 134335

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	2.50	2.56		mg/L		102	90 - 110

Lab Sample ID: 240-38459-8 MS

Matrix: Water

Analysis Batch: 134335

Client Sample ID: OW-5

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	ND		2.50	2.95		mg/L		116	80 - 120

Lab Sample ID: 240-38459-8 MSD

Matrix: Water

Analysis Batch: 134335

Client Sample ID: OW-5

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	ND		2.50	2.90		mg/L		114	80 - 120	2	20

Lab Sample ID: MB 240-134662/3

Matrix: Water

Analysis Batch: 134662

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.10		mg/L			06/13/14 15:09	1

TestAmerica Canton

QC Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 240-134662/4

Matrix: Water

Analysis Batch: 134662

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	2.50	2.56		mg/L		102	90 - 110

Lab Sample ID: 240-38499-2 MS

Matrix: Water

Analysis Batch: 134662

Client Sample ID: OW-6

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	0.55	H	2.50	3.26		mg/L		108	80 - 120

Lab Sample ID: 240-38499-2 MSD

Matrix: Water

Analysis Batch: 134662

Client Sample ID: OW-6

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	0.55	H	2.50	3.20		mg/L		106	80 - 120	2	20

Method: 310.1 - Alkalinity

Lab Sample ID: MB 240-134743/5

Matrix: Water

Analysis Batch: 134743

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	ND		5.0		mg/L			06/13/14 12:24	1

Lab Sample ID: LCS 240-134743/4

Matrix: Water

Analysis Batch: 134743

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	255	232		mg/L		91	90 - 127

Lab Sample ID: MB 240-134926/5

Matrix: Water

Analysis Batch: 134926

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	ND		5.0		mg/L			06/16/14 12:28	1

Lab Sample ID: LCS 240-134926/4

Matrix: Water

Analysis Batch: 134926

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	255	239		mg/L		94	90 - 127

TestAmerica Canton

QC Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Method: 310.1 - Alkalinity (Continued)

Lab Sample ID: MB 240-135574/5

Matrix: Water

Analysis Batch: 135574

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	3.76	J	5.0	1.9	mg/L			06/19/14 12:13	1

Lab Sample ID: LCS 240-135574/4

Matrix: Water

Analysis Batch: 135574

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	255	244		mg/L		96	90 - 127

Lab Sample ID: 240-38459-8 MS

Matrix: Water

Analysis Batch: 135574

Client Sample ID: OW-5

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	94	B	500	551		mg/L		91	10 - 160

Lab Sample ID: 240-38459-8 MSD

Matrix: Water

Analysis Batch: 135574

Client Sample ID: OW-5

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Alkalinity	94	B	500	537		mg/L		88	10 - 160	3	24

Lab Sample ID: 240-38459-8 DU

Matrix: Water

Analysis Batch: 135574

Client Sample ID: OW-5

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity	94	B	96.6		mg/L		2	20

Method: 325.2 - Chloride

Lab Sample ID: MB 240-134555/5

Matrix: Water

Analysis Batch: 134555

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			06/13/14 08:06	1

Lab Sample ID: LCS 240-134555/13

Matrix: Water

Analysis Batch: 134555

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	176	196		mg/L		111	88 - 114

TestAmerica Canton

QC Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Method: 325.2 - Chloride (Continued)

Lab Sample ID: 240-38459-8 MS

Matrix: Water

Analysis Batch: 134555

Client Sample ID: OW-5

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	11		25.0	39.0		mg/L		113	52 - 143

Lab Sample ID: 240-38459-8 MSD

Matrix: Water

Analysis Batch: 134555

Client Sample ID: OW-5

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	11		25.0	39.3		mg/L		115	52 - 143	1	20

Lab Sample ID: MB 240-135569/5

Matrix: Water

Analysis Batch: 135569

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.40	mg/L			06/20/14 11:29	1

Lab Sample ID: LCS 240-135569/22

Matrix: Water

Analysis Batch: 135569

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	176	179		mg/L		102	88 - 114

Lab Sample ID: 240-38499-2 MS

Matrix: Water

Analysis Batch: 135569

Client Sample ID: OW-6

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	1.1		25.0	29.8		mg/L		115	52 - 143

Lab Sample ID: 240-38499-2 MSD

Matrix: Water

Analysis Batch: 135569

Client Sample ID: OW-6

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1.1		25.0	29.4		mg/L		113	52 - 143	1	20

Method: 375.4 - Sulfate

Lab Sample ID: MB 240-135408/19

Matrix: Water

Analysis Batch: 135408

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	2.94	J	5.0	1.8	mg/L			06/19/14 08:46	1

TestAmerica Canton

QC Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Method: 375.4 - Sulfate (Continued)

Lab Sample ID: LCS 240-135408/20

Matrix: Water

Analysis Batch: 135408

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			24.9	23.4		mg/L		94	80 - 112		

Lab Sample ID: 240-38459-8 MS

Matrix: Water

Analysis Batch: 135408

Client Sample ID: OW-5

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	48	B	25.0	98.3	F1	mg/L		200	22 - 151		

Lab Sample ID: 240-38459-8 MSD

Matrix: Water

Analysis Batch: 135408

Client Sample ID: OW-5

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	48	B	25.0	61.2	F2	mg/L		52	22 - 151	47	20

Lab Sample ID: MB 240-135780/13

Matrix: Water

Analysis Batch: 135780

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5.0	1.8	mg/L			06/23/14 08:39	1

Lab Sample ID: LCS 240-135780/53

Matrix: Water

Analysis Batch: 135780

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			24.9	25.6		mg/L		103	80 - 112		

Lab Sample ID: 240-38499-3 MS

Matrix: Water

Analysis Batch: 135780

Client Sample ID: OW-2

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	16		25.0	35.5	J	mg/L		77	22 - 151		

Lab Sample ID: 240-38499-3 MSD

Matrix: Water

Analysis Batch: 135780

Client Sample ID: OW-2

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	16		25.0	55.7	F1 F2	mg/L		158	22 - 151	44	20

TestAmerica Canton

QC Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Method: 376.1 - Sulfide

Lab Sample ID: MB 240-134670/1

Matrix: Water

Analysis Batch: 134670

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		1.0		mg/L			06/13/14 14:56	1

Lab Sample ID: LCS 240-134670/2

Matrix: Water

Analysis Batch: 134670

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	21.7	21.6		mg/L		99	79 - 110

Lab Sample ID: 240-38459-8 MS

Matrix: Water

Analysis Batch: 134670

Client Sample ID: OW-5

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	ND		21.7	19.8		mg/L		91	75 - 110

Lab Sample ID: 240-38459-8 MSD

Matrix: Water

Analysis Batch: 134670

Client Sample ID: OW-5

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfide	ND		21.7	20.0		mg/L		92	75 - 110	1	20

Lab Sample ID: MB 240-134999/1

Matrix: Water

Analysis Batch: 134999

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		1.0		mg/L			06/17/14 10:52	1

Lab Sample ID: LCS 240-134999/2

Matrix: Water

Analysis Batch: 134999

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	20.0	19.9		mg/L		100	79 - 110

Method: 415.1 - TOC

Lab Sample ID: MB 240-134658/3

Matrix: Water

Analysis Batch: 134658

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1.0		mg/L			06/13/14 09:36	1

TestAmerica Canton

QC Sample Results

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Method: 415.1 - TOC (Continued)

Lab Sample ID: LCS 240-134658/4

Matrix: Water

Analysis Batch: 134658

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon			53.8	54.7		mg/L		102	88 - 115		

Lab Sample ID: 240-38459-8 MS

Matrix: Water

Analysis Batch: 134658

Client Sample ID: OW-5

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon	ND		25.0	27.6		mg/L		107	72 - 136		

Lab Sample ID: 240-38459-8 MSD

Matrix: Water

Analysis Batch: 134658

Client Sample ID: OW-5

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	ND		25.0	27.7		mg/L		107	72 - 136	0	20

Lab Sample ID: MB 240-134844/3

Matrix: Water

Analysis Batch: 134844

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1.0		mg/L			06/16/14 10:46	1

Lab Sample ID: LCS 240-134844/4

Matrix: Water

Analysis Batch: 134844

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon			53.8	54.7		mg/L		102	88 - 115		

Lab Sample ID: 240-38499-5 MS

Matrix: Water

Analysis Batch: 134844

Client Sample ID: MW-4

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon	1.2		25.0	26.1		mg/L		100	72 - 136		

Lab Sample ID: 240-38499-5 MSD

Matrix: Water

Analysis Batch: 134844

Client Sample ID: MW-4

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	1.2		25.0	26.0		mg/L		99	72 - 136	0	20

TestAmerica Canton

QC Association Summary

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

GC/MS VOA

Analysis Batch: 170597

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-38459-3	TRIP BLANK 1	Total/NA	Water	8260B	
240-38459-4	FIELD BLANK 1	Total/NA	Water	8260B	
240-38459-6	PUMP BLANK	Total/NA	Water	8260B	
LCS 490-170597/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 490-170597/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 490-170597/7	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 170756

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-38459-1	OW-22	Total/NA	Water	8260B	
240-38459-2	OW-21	Total/NA	Water	8260B	
240-38459-5	OW-18	Total/NA	Water	8260B	
240-38459-7	OW-19	Total/NA	Water	8260B	
240-38459-8	OW-5	Total/NA	Water	8260B	
240-38459-8 MS	OW-5	Total/NA	Water	8260B	
240-38459-8 MSD	OW-5	Total/NA	Water	8260B	
LCS 490-170756/3	Lab Control Sample	Total/NA	Water	8260B	
MB 490-170756/6	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 170811

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-38499-1	TRIP BLANK 2	Total/NA	Water	8260B	
240-38499-2	OW-6	Total/NA	Water	8260B	
LCS 490-170811/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 490-170811/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 490-170811/7	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 170985

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-38499-3	OW-2	Total/NA	Water	8260B	
240-38499-4	FIELD BLANK 2	Total/NA	Water	8260B	
240-38499-5	MW-4	Total/NA	Water	8260B	
240-38499-6	GW-DUP	Total/NA	Water	8260B	
240-38499-7	OW-13R	Total/NA	Water	8260B	
LCS 490-170985/4	Lab Control Sample	Total/NA	Water	8260B	
MB 490-170985/7	Method Blank	Total/NA	Water	8260B	

GC VOA

Analysis Batch: 135539

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-38459-2	OW-21	Total/NA	Water	RSK-175	
240-38459-5	OW-18	Total/NA	Water	RSK-175	
240-38459-7	OW-19	Total/NA	Water	RSK-175	
240-38459-8	OW-5	Total/NA	Water	RSK-175	
240-38459-8 MS	OW-5	Total/NA	Water	RSK-175	
240-38459-8 MSD	OW-5	Total/NA	Water	RSK-175	
240-38499-2	OW-6	Total/NA	Water	RSK-175	
240-38499-3	OW-2	Total/NA	Water	RSK-175	
240-38499-5	MW-4	Total/NA	Water	RSK-175	

TestAmerica Canton

QC Association Summary

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

GC VOA (Continued)

Analysis Batch: 135539 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-38499-6	GW-DUP	Total/NA	Water	RSK-175	
240-38499-7	OW-13R	Total/NA	Water	RSK-175	
LCS 240-135539/5	Lab Control Sample	Total/NA	Water	RSK-175	
MB 240-135539/4	Method Blank	Total/NA	Water	RSK-175	

Analysis Batch: 135630

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-38459-1	OW-22	Total/NA	Water	RSK-175	
240-38459-1 MS	OW-22	Total/NA	Water	RSK-175	
240-38459-1 MSD	OW-22	Total/NA	Water	RSK-175	
LCS 240-135630/5	Lab Control Sample	Total/NA	Water	RSK-175	
MB 240-135630/4	Method Blank	Total/NA	Water	RSK-175	

General Chemistry

Analysis Batch: 134335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-38459-1	OW-22	Total/NA	Water	300.0	
240-38459-2	OW-21	Total/NA	Water	300.0	
240-38459-5	OW-18	Total/NA	Water	300.0	
240-38459-7	OW-19	Total/NA	Water	300.0	
240-38459-8	OW-5	Total/NA	Water	300.0	
240-38459-8 MS	OW-5	Total/NA	Water	300.0	
240-38459-8 MSD	OW-5	Total/NA	Water	300.0	
LCS 240-134335/28	Lab Control Sample	Total/NA	Water	300.0	
MB 240-134335/27	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 134555

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-38459-1	OW-22	Total/NA	Water	325.2	
240-38459-2	OW-21	Total/NA	Water	325.2	
240-38459-5	OW-18	Total/NA	Water	325.2	
240-38459-7	OW-19	Total/NA	Water	325.2	
240-38459-8	OW-5	Total/NA	Water	325.2	
240-38459-8 MS	OW-5	Total/NA	Water	325.2	
240-38459-8 MSD	OW-5	Total/NA	Water	325.2	
LCS 240-134555/13	Lab Control Sample	Total/NA	Water	325.2	
MB 240-134555/5	Method Blank	Total/NA	Water	325.2	

Analysis Batch: 134658

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-38459-1	OW-22	Total/NA	Water	415.1	
240-38459-2	OW-21	Total/NA	Water	415.1	
240-38459-5	OW-18	Total/NA	Water	415.1	
240-38459-7	OW-19	Total/NA	Water	415.1	
240-38459-8	OW-5	Total/NA	Water	415.1	
240-38459-8 MS	OW-5	Total/NA	Water	415.1	
240-38459-8 MSD	OW-5	Total/NA	Water	415.1	
LCS 240-134658/4	Lab Control Sample	Total/NA	Water	415.1	
MB 240-134658/3	Method Blank	Total/NA	Water	415.1	

TestAmerica Canton

QC Association Summary

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

General Chemistry (Continued)

Analysis Batch: 134662

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-38499-2	OW-6	Total/NA	Water	300.0	
240-38499-2 MS	OW-6	Total/NA	Water	300.0	
240-38499-2 MSD	OW-6	Total/NA	Water	300.0	
240-38499-3	OW-2	Total/NA	Water	300.0	
240-38499-5	MW-4	Total/NA	Water	300.0	
240-38499-6	GW-DUP	Total/NA	Water	300.0	
240-38499-7	OW-13R	Total/NA	Water	300.0	
LCS 240-134662/4	Lab Control Sample	Total/NA	Water	300.0	
MB 240-134662/3	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 134670

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-38459-1	OW-22	Total/NA	Water	376.1	
240-38459-2	OW-21	Total/NA	Water	376.1	
240-38459-5	OW-18	Total/NA	Water	376.1	
240-38459-7	OW-19	Total/NA	Water	376.1	
240-38459-8	OW-5	Total/NA	Water	376.1	
240-38459-8 MS	OW-5	Total/NA	Water	376.1	
240-38459-8 MSD	OW-5	Total/NA	Water	376.1	
LCS 240-134670/2	Lab Control Sample	Total/NA	Water	376.1	
MB 240-134670/1	Method Blank	Total/NA	Water	376.1	

Analysis Batch: 134743

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-38459-1	OW-22	Total/NA	Water	310.1	
LCS 240-134743/4	Lab Control Sample	Total/NA	Water	310.1	
MB 240-134743/5	Method Blank	Total/NA	Water	310.1	

Analysis Batch: 134844

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-38499-2	OW-6	Total/NA	Water	415.1	
240-38499-3	OW-2	Total/NA	Water	415.1	
240-38499-5	MW-4	Total/NA	Water	415.1	
240-38499-5 MS	MW-4	Total/NA	Water	415.1	
240-38499-5 MSD	MW-4	Total/NA	Water	415.1	
240-38499-6	GW-DUP	Total/NA	Water	415.1	
240-38499-7	OW-13R	Total/NA	Water	415.1	
LCS 240-134844/4	Lab Control Sample	Total/NA	Water	415.1	
MB 240-134844/3	Method Blank	Total/NA	Water	415.1	

Analysis Batch: 134926

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-38459-2	OW-21	Total/NA	Water	310.1	
LCS 240-134926/4	Lab Control Sample	Total/NA	Water	310.1	
MB 240-134926/5	Method Blank	Total/NA	Water	310.1	

Analysis Batch: 134999

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-38499-2	OW-6	Total/NA	Water	376.1	
240-38499-3	OW-2	Total/NA	Water	376.1	
240-38499-5	MW-4	Total/NA	Water	376.1	

TestAmerica Canton

QC Association Summary

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

General Chemistry (Continued)

Analysis Batch: 134999 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-38499-6	GW-DUP	Total/NA	Water	376.1	
240-38499-7	OW-13R	Total/NA	Water	376.1	
LCS 240-134999/2	Lab Control Sample	Total/NA	Water	376.1	
MB 240-134999/1	Method Blank	Total/NA	Water	376.1	

Analysis Batch: 135408

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-38459-1	OW-22	Total/NA	Water	375.4	
240-38459-5	OW-18	Total/NA	Water	375.4	
240-38459-7	OW-19	Total/NA	Water	375.4	
240-38459-8	OW-5	Total/NA	Water	375.4	
240-38459-8 MS	OW-5	Total/NA	Water	375.4	
240-38459-8 MSD	OW-5	Total/NA	Water	375.4	
LCS 240-135408/20	Lab Control Sample	Total/NA	Water	375.4	
MB 240-135408/19	Method Blank	Total/NA	Water	375.4	

Analysis Batch: 135569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-38499-2	OW-6	Total/NA	Water	325.2	
240-38499-2 MS	OW-6	Total/NA	Water	325.2	
240-38499-2 MSD	OW-6	Total/NA	Water	325.2	
240-38499-3	OW-2	Total/NA	Water	325.2	
240-38499-5	MW-4	Total/NA	Water	325.2	
240-38499-6	GW-DUP	Total/NA	Water	325.2	
240-38499-7	OW-13R	Total/NA	Water	325.2	
LCS 240-135569/22	Lab Control Sample	Total/NA	Water	325.2	
MB 240-135569/5	Method Blank	Total/NA	Water	325.2	

Analysis Batch: 135574

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-38459-5	OW-18	Total/NA	Water	310.1	
240-38459-7	OW-19	Total/NA	Water	310.1	
240-38459-8	OW-5	Total/NA	Water	310.1	
240-38459-8 DU	OW-5	Total/NA	Water	310.1	
240-38459-8 MS	OW-5	Total/NA	Water	310.1	
240-38459-8 MSD	OW-5	Total/NA	Water	310.1	
240-38499-2	OW-6	Total/NA	Water	310.1	
240-38499-3	OW-2	Total/NA	Water	310.1	
240-38499-5	MW-4	Total/NA	Water	310.1	
240-38499-6	GW-DUP	Total/NA	Water	310.1	
240-38499-7	OW-13R	Total/NA	Water	310.1	
LCS 240-135574/4	Lab Control Sample	Total/NA	Water	310.1	
MB 240-135574/5	Method Blank	Total/NA	Water	310.1	

Analysis Batch: 135780

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-38459-2	OW-21	Total/NA	Water	375.4	
240-38499-2	OW-6	Total/NA	Water	375.4	
240-38499-3	OW-2	Total/NA	Water	375.4	
240-38499-3 MS	OW-2	Total/NA	Water	375.4	
240-38499-3 MSD	OW-2	Total/NA	Water	375.4	

TestAmerica Canton

QC Association Summary

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

General Chemistry (Continued)

Analysis Batch: 135780 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-38499-5	MW-4	Total/NA	Water	375.4	
240-38499-6	GW-DUP	Total/NA	Water	375.4	
240-38499-7	OW-13R	Total/NA	Water	375.4	
LCS 240-135780/53	Lab Control Sample	Total/NA	Water	375.4	
MB 240-135780/13	Method Blank	Total/NA	Water	375.4	

Lab Chronicle

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Client Sample ID: OW-22

Date Collected: 06/10/14 04:40

Date Received: 06/12/14 09:30

Lab Sample ID: 240-38459-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	170756	06/19/14 03:52	EML	TAL NSH
Total/NA	Analysis	RSK-175		3	135630	06/21/14 13:32	BPM	TAL CAN
Total/NA	Analysis	300.0		1	134335	06/12/14 22:25	LKG	TAL CAN
Total/NA	Analysis	310.1		1	134743	06/13/14 16:24	LKG	TAL CAN
Total/NA	Analysis	325.2		1	134555	06/13/14 08:06	LKG	TAL CAN
Total/NA	Analysis	375.4		1	135408	06/19/14 08:46	JAK	TAL CAN
Total/NA	Analysis	376.1		1	134670	06/13/14 15:19	BLW	TAL CAN
Total/NA	Analysis	415.1		1	134658	06/13/14 10:41	TPH	TAL CAN

Client Sample ID: OW-21

Date Collected: 06/10/14 05:40

Date Received: 06/12/14 09:30

Lab Sample ID: 240-38459-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	170756	06/19/14 04:21	EML	TAL NSH
Total/NA	Analysis	RSK-175		1	135539	06/20/14 14:52	BPM	TAL CAN
Total/NA	Analysis	300.0		1	134335	06/12/14 22:41	LKG	TAL CAN
Total/NA	Analysis	310.1		1	134926	06/16/14 15:57	LKG	TAL CAN
Total/NA	Analysis	325.2		1	134555	06/13/14 08:06	LKG	TAL CAN
Total/NA	Analysis	375.4		1	135780	06/23/14 12:40	JAK	TAL CAN
Total/NA	Analysis	376.1		1	134670	06/13/14 15:25	BLW	TAL CAN
Total/NA	Analysis	415.1		1	134658	06/13/14 10:52	TPH	TAL CAN

Client Sample ID: TRIP BLANK 1

Date Collected: 06/10/14 05:30

Date Received: 06/12/14 09:30

Lab Sample ID: 240-38459-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	170597	06/18/14 20:40	EML	TAL NSH

Client Sample ID: FIELD BLANK 1

Date Collected: 06/10/14 05:35

Date Received: 06/12/14 09:30

Lab Sample ID: 240-38459-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	170597	06/18/14 21:08	EML	TAL NSH

TestAmerica Canton

Lab Chronicle

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Client Sample ID: OW-18

Lab Sample ID: 240-38459-5

Date Collected: 06/11/14 09:30

Matrix: Water

Date Received: 06/12/14 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	170756	06/19/14 04:49	EML	TAL NSH
Total/NA	Analysis	RSK-175		1	135539	06/20/14 15:04	BPM	TAL CAN
Total/NA	Analysis	300.0		1	134335	06/12/14 22:58	LKG	TAL CAN
Total/NA	Analysis	310.1		1	135574	06/19/14 14:35	JMB	TAL CAN
Total/NA	Analysis	325.2		1	134555	06/13/14 08:11	LKG	TAL CAN
Total/NA	Analysis	375.4		1	135408	06/19/14 08:46	JAK	TAL CAN
Total/NA	Analysis	376.1		1	134670	06/13/14 15:31	BLW	TAL CAN
Total/NA	Analysis	415.1		1	134658	06/13/14 11:03	TPH	TAL CAN

Client Sample ID: PUMP BLANK

Lab Sample ID: 240-38459-6

Date Collected: 06/11/14 09:50

Matrix: Water

Date Received: 06/12/14 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	170597	06/18/14 21:37	EML	TAL NSH

Client Sample ID: OW-19

Lab Sample ID: 240-38459-7

Date Collected: 06/11/14 11:00

Matrix: Water

Date Received: 06/12/14 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	170756	06/19/14 05:18	EML	TAL NSH
Total/NA	Analysis	RSK-175		1	135539	06/20/14 15:16	BPM	TAL CAN
Total/NA	Analysis	300.0		1	134335	06/12/14 23:47	LKG	TAL CAN
Total/NA	Analysis	310.1		1	135574	06/19/14 14:45	JMB	TAL CAN
Total/NA	Analysis	325.2		1	134555	06/13/14 08:06	LKG	TAL CAN
Total/NA	Analysis	375.4		1	135408	06/19/14 12:01	JAK	TAL CAN
Total/NA	Analysis	376.1		1	134670	06/13/14 15:36	BLW	TAL CAN
Total/NA	Analysis	415.1		1	134658	06/13/14 11:13	TPH	TAL CAN

Client Sample ID: OW-5

Lab Sample ID: 240-38459-8

Date Collected: 06/11/14 12:15

Matrix: Water

Date Received: 06/12/14 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	170756	06/19/14 03:23	EML	TAL NSH
Total/NA	Analysis	RSK-175		1	135539	06/20/14 15:28	BPM	TAL CAN
Total/NA	Analysis	300.0		1	134335	06/13/14 00:03	LKG	TAL CAN
Total/NA	Analysis	310.1		1	135574	06/19/14 14:59	JMB	TAL CAN
Total/NA	Analysis	325.2		1	134555	06/13/14 08:06	LKG	TAL CAN
Total/NA	Analysis	375.4		5	135408	06/19/14 08:57	JAK	TAL CAN

TestAmerica Canton

Lab Chronicle

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Client Sample ID: OW-5

Lab Sample ID: 240-38459-8

Date Collected: 06/11/14 12:15

Matrix: Water

Date Received: 06/12/14 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	376.1		1	134670	06/13/14 15:42	BLW	TAL CAN
Total/NA	Analysis	415.1		1	134658	06/13/14 09:58	TPH	TAL CAN

Client Sample ID: TRIP BLANK 2

Lab Sample ID: 240-38499-1

Date Collected: 06/11/14 14:20

Matrix: Water

Date Received: 06/13/14 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	170811	06/19/14 19:52	EML	TAL NSH

Client Sample ID: OW-6

Lab Sample ID: 240-38499-2

Date Collected: 06/11/14 14:50

Matrix: Water

Date Received: 06/13/14 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	170811	06/19/14 20:19	EML	TAL NSH
Total/NA	Analysis	RSK-175		1	135539	06/20/14 16:17	BPM	TAL CAN
Total/NA	Analysis	300.0		1	134662	06/13/14 18:42	LKG	TAL CAN
Total/NA	Analysis	310.1		1	135574	06/19/14 16:56	JMB	TAL CAN
Total/NA	Analysis	325.2		1	135569	06/20/14 11:29	JAK	TAL CAN
Total/NA	Analysis	375.4		1	135780	06/23/14 09:32	JAK	TAL CAN
Total/NA	Analysis	376.1		1	134999	06/17/14 11:56	WAL	TAL CAN
Total/NA	Analysis	415.1		1	134844	06/16/14 12:02	TPH	TAL CAN

Client Sample ID: OW-2

Lab Sample ID: 240-38499-3

Date Collected: 06/11/14 16:00

Matrix: Water

Date Received: 06/13/14 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	170985	06/20/14 05:41	EML	TAL NSH
Total/NA	Analysis	RSK-175		1	135539	06/20/14 16:30	BPM	TAL CAN
Total/NA	Analysis	300.0		1	134662	06/13/14 19:32	LKG	TAL CAN
Total/NA	Analysis	310.1		1	135574	06/19/14 17:03	JMB	TAL CAN
Total/NA	Analysis	325.2		1	135569	06/20/14 11:29	JAK	TAL CAN
Total/NA	Analysis	375.4		1	135780	06/23/14 09:32	JAK	TAL CAN
Total/NA	Analysis	376.1		1	134999	06/17/14 12:05	WAL	TAL CAN
Total/NA	Analysis	415.1		1	134844	06/16/14 12:13	TPH	TAL CAN

TestAmerica Canton

Lab Chronicle

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Client Sample ID: FIELD BLANK 2

Lab Sample ID: 240-38499-4

Date Collected: 06/11/14 16:45

Matrix: Water

Date Received: 06/13/14 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	170985	06/20/14 06:08	EML	TAL NSH

Client Sample ID: MW-4

Lab Sample ID: 240-38499-5

Date Collected: 06/11/14 16:50

Matrix: Water

Date Received: 06/13/14 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	170985	06/20/14 06:35	EML	TAL NSH
Total/NA	Analysis	RSK-175		1	135539	06/20/14 16:42	BPM	TAL CAN
Total/NA	Analysis	300.0		1	134662	06/13/14 19:48	LKG	TAL CAN
Total/NA	Analysis	310.1		1	135574	06/19/14 17:10	JMB	TAL CAN
Total/NA	Analysis	325.2		1	135569	06/20/14 11:29	JAK	TAL CAN
Total/NA	Analysis	375.4		5	135780	06/23/14 11:14	JAK	TAL CAN
Total/NA	Analysis	376.1		1	134999	06/17/14 12:14	WAL	TAL CAN
Total/NA	Analysis	415.1		1	134844	06/16/14 11:08	TPH	TAL CAN

Client Sample ID: GW-DUP

Lab Sample ID: 240-38499-6

Date Collected: 06/11/14 19:00

Matrix: Water

Date Received: 06/13/14 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	170985	06/20/14 07:02	EML	TAL NSH
Total/NA	Analysis	RSK-175		1	135539	06/20/14 16:54	BPM	TAL CAN
Total/NA	Analysis	300.0		1	134662	06/13/14 20:04	LKG	TAL CAN
Total/NA	Analysis	310.1		1	135574	06/19/14 17:22	JMB	TAL CAN
Total/NA	Analysis	325.2		1	135569	06/20/14 11:29	JAK	TAL CAN
Total/NA	Analysis	375.4		1	135780	06/23/14 09:36	JAK	TAL CAN
Total/NA	Analysis	376.1		1	134999	06/17/14 12:23	WAL	TAL CAN
Total/NA	Analysis	415.1		1	134844	06/16/14 11:40	TPH	TAL CAN

Client Sample ID: OW-13R

Lab Sample ID: 240-38499-7

Date Collected: 06/11/14 18:25

Matrix: Water

Date Received: 06/13/14 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	170985	06/20/14 07:27	EML	TAL NSH
Total/NA	Analysis	RSK-175		1	135539	06/20/14 17:06	BPM	TAL CAN
Total/NA	Analysis	300.0		1	134662	06/13/14 20:21	LKG	TAL CAN
Total/NA	Analysis	310.1		1	135574	06/19/14 17:35	JMB	TAL CAN
Total/NA	Analysis	325.2		1	135569	06/20/14 11:29	JAK	TAL CAN
Total/NA	Analysis	375.4		1	135780	06/23/14 09:36	JAK	TAL CAN

TestAmerica Canton

Lab Chronicle

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Client Sample ID: OW-13R

Date Collected: 06/11/14 18:25

Date Received: 06/13/14 09:20

Lab Sample ID: 240-38499-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	376.1		1	134999	06/17/14 12:32	WAL	TAL CAN
Total/NA	Analysis	415.1		1	134844	06/16/14 11:51	TPH	TAL CAN

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

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

Certification Summary

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Laboratory: TestAmerica Canton

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

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAP	9	01144CA	06-30-14 *
California	State Program	9	2927	04-30-15
Connecticut	State Program	1	PH-0590	12-31-14
Florida	NELAP	4	E87225	06-30-14 *
Georgia	State Program	4	N/A	06-30-14 *
Illinois	NELAP	5	200004	07-31-14 *
Kansas	NELAP	7	E-10336	01-31-15
Kentucky (UST)	State Program	4	58	06-30-14 *
L-A-B	DoD ELAP		L2315	07-18-16
Minnesota	NELAP	5	039-999-348	12-31-14
Nevada	State Program	9	OH-000482008A	07-31-14 *
New Jersey	NELAP	2	OH001	06-30-15
New York	NELAP	2	10975	03-31-15
Ohio VAP	State Program	5	CL0024	10-31-15
Pennsylvania	NELAP	3	68-00340	08-31-14 *
Texas	NELAP	6		08-31-14
USDA	Federal		P330-13-00319	11-26-16
Virginia	NELAP	3	460175	09-14-14
Washington	State Program	10	C971	01-12-15
West Virginia DEP	State Program	3	210	12-31-14
Wisconsin	State Program	5	999518190	08-31-14 *

Laboratory: TestAmerica Nashville

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

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	A2LA		NA: NELAP & A2LA	12-31-15
A2LA	ISO/IEC 17025		0453.07	12-31-15
Alaska (UST)	State Program	10	UST-087	07-24-14
Arizona	State Program	9	AZ0473	05-05-15
Arkansas DEQ	State Program	6	88-0737	04-25-15
California	NELAP	9	1168CA	10-31-14
Connecticut	State Program	1	PH-0220	12-31-15
Florida	NELAP	4	E87358	06-30-15
Illinois	NELAP	5	200010	12-09-14
Iowa	State Program	7	131	05-01-14 *
Kansas	NELAP	7	E-10229	10-31-14
Kentucky (UST)	State Program	4	19	06-30-14 *
Louisiana	NELAP	6	30613	06-30-14 *
Maryland	State Program	3	316	03-31-15
Massachusetts	State Program	1	M-TN032	06-30-14 *
Minnesota	NELAP	5	047-999-345	12-31-14
Mississippi	State Program	4	N/A	06-30-14 *
Montana (UST)	State Program	8	NA	02-24-20
Nevada	State Program	9	TN00032	07-31-14
New Hampshire	NELAP	1	2963	10-09-14
New Jersey	NELAP	2	TN965	06-30-15
New York	NELAP	2	11342	03-31-15
North Carolina (WW/SW)	State Program	4	387	12-31-14
North Dakota	State Program	8	R-146	06-30-14 *

* Certification renewal pending - certification considered valid.

TestAmerica Canton

Certification Summary

Client: Monroeville, PA
Project/Site: Carroll & Dubles Superfund

TestAmerica Job ID: 240-38459-1

Laboratory: TestAmerica Nashville (Continued)

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Ohio VAP	State Program	5	CL0033	10-16-15
Oklahoma	State Program	6	9412	08-31-14
Oregon	NELAP	10	TN200001	04-29-15
Pennsylvania	NELAP	3	68-00585	06-30-15
Rhode Island	State Program	1	LAO00268	12-30-14
South Carolina	State Program	4	84009 (001)	02-28-14 *
South Carolina (DW)	State Program	4	84009 (002)	02-23-17
Tennessee	State Program	4	2008	02-23-17
Texas	NELAP	6	T104704077	08-31-14
USDA	Federal		S-48469	10-30-16
Utah	NELAP	8	TN00032	07-31-14
Virginia	NELAP	3	460152	06-14-15
Washington	State Program	10	C789	07-19-14
West Virginia DEP	State Program	3	219	02-28-15
Wisconsin	State Program	5	998020430	08-31-14
Wyoming (UST)	A2LA	8	453.07	12-31-15

* Certification renewal pending - certification considered valid.

TestAmerica Canton

**CHAIN OF CUSTODY
AND
RECEIVING DOCUMENTS**



240-38459 Chain of Custody

TestAmerica Canton
4101 Shuffel Street, N. H.

North Canton, OH 44720
Phone: 330.497.9396 Fax: 330.497.0772

Chain of Custody Record

038171

4.2, 4.4

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact		Project Manager: Barbara Jones		Site Contact: Lab Contact:		Date: Carrier:		COC No: of COCs	
Company Name: Cardinal Resources		Tel/Fax: cell 412-841-2363		Analysis Turnaround Time		Sampler:		For Lab Use Only:	
Address: 203 Main St / PO Box D		☐ CALENDAR DAYS ☐ WORKING DAYS		TAT if different from Below		Walk-in Client:		Lab Sampling:	
City/State/Zip: East Pittsburgh PA 15112		2 weeks		☐		Lab Sampling:		Job / SDG No.:	
Phone: 412-374-0989		1 week		☐		Job / SDG No.:		Sample Specific Notes:	
Fax: 412-374-0959		2 days		☐					
Project Name: Carroll & Dubois Superfund		1 day		☐					
Site: Port Jarvis, NY									
PO# 104-0012									
Sample Identification		Sample Date	Sample Time	Sample Type (C-Comp, G-Grab)	Matrix	# of Cont.			
OW-22		6-10-14	4:40	G	H ₂ O	11			
OW-21		6-10-14	5:40	G	H ₂ O	11			
Trip Blank 1		6-10-14	5:30	G	H ₂ O	1			
Field Blank 1		6-10-14	5:35	G	H ₂ O	3			
OW-18		6-11-14	9:30	G	H ₂ O	11			
Pump Blank		6-11-14	9:50	G	H ₂ O	3			
OW-19		6-11-14	11:00	G	H ₂ O	71			
OW-5		6-11-14	12:15	G	H ₂ O	11			
OW-5 MS		6-11-14	12:25	G	H ₂ O	11			
OW-5 MSD		6-11-14	12:35	G	H ₂ O	11			
Preservation Used: 1= Ice, 2= HCl, 3= H ₂ SO ₄ , 4= HNO ₃ , 5= NaOH, 6= Other									
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.									
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown									
Special Instructions/QC Requirements & Comments:									
Custody Seals Intact: ☐ Yes ☐ No									
Relinquished by: Barbara J. Jones									
Relinquished by: Cardinal Resources									
Relinquished by: Received by: R. Jones									
Relinquished by: Received in Laboratory by:									
Relinquished by: Received by: TA Center									
Relinquished by: Received by: 6/12/14									
Relinquished by: Received by: 930									

TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 38459

Client <u>Cordina Resources</u>		Site Name _____		Cooler unpacked by: <u>Russ Rose</u>	
Cooler Received on <u>6/12/14</u>		Opened on <u>6/12/14</u>			
FedEx: 1 st Grd ☒ Exp		UPS FAS Stetson		Client Drop Off TestAmerica Courier Other _____	
TestAmerica Cooler # _____		Foam Box <u>Client Cooler</u>		Box Other _____	
Packing material used: <u>Bubble Wrap</u>		Foam Plastic Bag		None Other _____	
COOLANT: <u>Wet Ice</u>		Blue Ice Dry Ice Water		None	

1. Cooler temperature upon receipt

IR GUN# A (CF +2 °C)	Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	
IR GUN# 4 (CF -2 °C)	Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	☒ See Multiple Cooler Form
IR GUN# 5 (CF +0 °C)	Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	
IR GUN# 8 (CF +0 °C)	Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 each ☒ Yes ☐ No
 - Were custody seals on the outside of the cooler(s) signed & dated? ☒ Yes ☐ No NA
 - Were custody seals on the bottle(s)? ☒ Yes ☐ No
3. Shippers' packing slip attached to the cooler(s)? ☒ Yes ☐ No
4. Did custody papers accompany the sample(s)? ☒ Yes ☐ No
5. Were the custody papers relinquished & signed in the appropriate place? ☒ Yes ☐ No
6. Did all bottles arrive in good condition (Unbroken)? ☒ Yes ☐ No
7. Could all bottle labels be reconciled with the COC? ☒ Yes ☐ No
8. Were correct bottle(s) used for the test(s) indicated? ☒ Yes ☐ No
9. Sufficient quantity received to perform indicated analyses? ☒ Yes ☐ No
10. Were sample(s) at the correct pH upon receipt? ☒ Yes ☐ No NA pH Strip Lot# HC302587
11. Were VOAs on the COC? ☒ Yes ☐ No
12. Were air bubbles >6 mm in any VOA vials? ☐ Yes ☒ No NA
13. Was a trip blank present in the cooler(s)? ☒ Yes ☐ No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES 	Samples processed by: <u><i>[Signature]</i></u>
--	--

15. SAMPLE CONDITION Sample(s) _____ were received after the recommended holding time had expired. Sample(s) _____ were received in a broken container. Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)	
--	--

16. SAMPLE PRESERVATION Sample(s) _____ were further preserved in the laboratory. Time preserved: _____ Preservative(s) added/Lot number(s): _____	
---	--

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u> <u>pH</u>	<u>Preservative</u> <u>Added (mls)</u>	<u>Lot #</u>
OW-22	240-38459-J-1	Plastic 500ml - with Zn Acetate and	>9	_____	_____
OW-21	240-38459-J-2	Plastic 500ml - with Zn Acetate and	>9	_____	_____
OW-18	240-38459-J-5	Plastic 500ml - with Zn Acetate and	>9	_____	_____
OW-19	240-38459-J-7	Plastic 500ml - with Zn Acetate and	>9	_____	_____
OW-5	240-38459-AB-8	Plastic 500ml - with Zn Acetate and	>9	_____	_____
OW-5	240-38459-AC-8	Plastic 500ml - with Zn Acetate and	>9	_____	_____
OW-5	240-38459-AD-8	Plastic 500ml - with Zn Acetate and	>9	_____	_____

CHAIN OF CUSTODY AND RECEIVING DOCUMENTS



240-38499 Chain of Custody

TestAmerica Canton
4101 Shuffel Street, N. H.

North Canton, OH 44720
Phone: 330.497.9396 Fax: 330.497.0772

Chain of Custody Record

038166

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

3.8

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☒ Other:

Client Contact		Project Manager: Barbara Jones		Site Contact:		Date:	
Company Name: Cardinal Resources		Tel/Fax: cell 412-841-2363		Lab Contact: Nathan Pichas		Carrier:	
Address: 203 Main St PO Box D		Analysis Turnaround Time		Perform MS / MSD (Y / N)		COC No: _____ of _____ COCs	
City/State/Zip: East Pittsburgh PA 15112		☐ CALENDAR DAYS ☐ WORKING DAYS		Filtered Sample (Y / N)		Sampler:	
Phone: 412-374-0989		TAT if different from Below		✓		For Lab Use Only:	
Fax: 412-374-0959		☐ 2 weeks		✓		Walk-in Client:	
Project Name: Cardinal Duplex Superfund		☐ 1 week		✓		Lab Sampling:	
Site: Post Jervis, NY		☐ 2 days		✓		Job / SDG No.:	
PO # 104-0012		☐ 1 day		✓		Sample Specific Notes:	
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	
Trip Blank 2	6-11-14	2:20	G	H ₂ O	1		
OW-6	6-11-14	2:50	G	H ₂ O	11		
OW-2	6-11-14	4:00	G	H ₂ O	11		
Field Blank 2	6-11-14	4:05	G	H ₂ O	3		
MW-4	6-11-14	4:50	G	H ₂ O	11		
GW-DUP	6-11-14	7:00	G	H ₂ O	11		
OW-13 R	6-11-14	6:25	G	H ₂ O	11		
Preservation Used: 1=Ice, 2=HCl, 3=H ₂ SO ₄ , 4=HNO ₃ , 5=NaOH, 6=Other							
Possible Hazard Identification: _____							
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.							
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown							
Special Instructions/QC Requirements & Comments:							
Custody Seals Intact: ☐ Yes ☐ No		Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____		Therm ID No.:	
Relinquished by: Barbara Jones		Company: Cardinal Resources		Received by: TA Canton		Date/Time: 6/13/14 920	
Relinquished by:		Company:		Received by:		Date/Time:	
Relinquished by:		Company:		Received in Laboratory by:		Date/Time:	

TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 38499

Client <u>Cardinal Resources</u>		Site Name _____		Cooler unpacked by: <u>Ryan R...</u>	
Cooler Received on <u>6/13/14</u>		Opened on <u>6/13/14</u>			
FedEx: 1 st Grd ☒ Exp		UPS ☐ FAS ☐ Stetson ☐ Client Drop Off ☐ TestAmerica Courier ☐ Other _____			
TestAmerica Cooler # _____		Foam Box ☐ Client Cooler ☒ Box ☐ Other _____			
Packing material used: <u>Bubble Wrap</u>		Foam ☐ Plastic Bag ☐ None ☐ Other _____			
COOLANT: <u>Wet Ice</u>		Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐			

1. Cooler temperature upon receipt

IR GUN# A	(CF +2 °C)	Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	
IR GUN# 4	(CF -2 °C)	Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	
IR GUN# 5	(CF +0 °C)	Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	
IR GUN# 8	(CF +0 °C)	Observed Cooler Temp. <u>3.3</u> °C	Corrected Cooler Temp. <u>3.9</u> °C	
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 ☒ Yes ☐ No
 - Were custody seals on the outside of the cooler(s) signed & dated? ☒ Yes ☐ No NA
 - Were custody seals on the bottle(s)? ☒ Yes ☐ No
3. Shippers' packing slip attached to the cooler(s)? ☒ Yes ☐ No
4. Did custody papers accompany the sample(s)? ☒ Yes ☐ No
5. Were the custody papers relinquished & signed in the appropriate place? ☒ Yes ☐ No
6. Did all bottles arrive in good condition (Unbroken)? ☒ Yes ☐ No
7. Could all bottle labels be reconciled with the COC? ☒ Yes ☐ No
8. Were correct bottle(s) used for the test(s) indicated? ☒ Yes ☐ No
9. Sufficient quantity received to perform indicated analyses? ☒ Yes ☐ No
10. Were sample(s) at the correct pH upon receipt? ☒ Yes ☐ No NA pH Strip Lot# HC302587
11. Were VOAs on the COC? ☒ Yes ☐ No
12. Were air bubbles >6 mm in any VOA vials? ☒ Yes ☐ No NA
13. Was a trip blank present in the cooler(s)? ☒ Yes ☐ No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____
 Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by: [Signature]

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
 Sample(s) _____ were received in a broken container.
 Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
 Time preserved: _____ Preservative(s) added/Lot number(s): _____

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container pH</u>	<u>Preservative Added (mls)</u>	<u>Lot #</u>
OW-6	240-38499-K-2	Plastic 500ml - with Zn Acetate and	>9	_____	_____
OW-2	240-38499-K-3	Plastic 500ml - with Zn Acetate and	>9	_____	_____
MW-4	240-38499-K-5	Plastic 500ml - with Zn Acetate and	>9	_____	_____
GW-DUP	240-38499-K-6	Plastic 500ml - with Zn Acetate and	>9	_____	_____
OW-13R	240-38499-K-7	Plastic 500ml - with Zn Acetate and	>9	_____	_____

Login Sample Receipt Checklist

Client: Cardinal Resources

Job Number: 240-38459-1

Login Number: 38459

List Source: TestAmerica Nashville

List Number: 2

List Creation: 06/18/14 11:00 AM

Creator: Ford, Easton

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

Login Sample Receipt Checklist

Client: Cardinal Resources

Job Number: 240-38459-1

Login Number: 38499

List Source: TestAmerica Nashville

List Number: 2

List Creation: 06/18/14 11:07 AM

Creator: Ford, Easton

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

Appendix B
Historic Groundwater Results

Table B-1
Historical Summary of Detected TCL Volatile Organic Compounds in Groundwater (ug/L)
Carroll and Dubies Superfund Site
Town of Deerpark, Orange County, New York

Analyte		Acetone	Benzene	Carbon Disulfide	Carbon Tetrachloride	Chloro-benzene	Chloroethane	Chloroform	Chloromethane	1,1-DCA	1,2-DCA	1,1-DCE	1,2-DCE (total)	Ethylbenzene	2-Hexanone	Methylene Chloride	1,1,2,2-PCA	PCE	Styrene	Toluene	TCE	Vinyl Chloride	Xylenes (total)
NYSDEC SGV		50 (G)	1 (S)	NA	5 (S)	5 (S)*	5 (S)*	7 (S)	1	5 (S)*	0.6 (S)	5 (S)*	5 (S)*	5 (S)*	50 (G)	5 (S)*	5 (S)*	5 (S)*	5 (S)*	5 (S)*	5 (S)*	2 (S)	5 (S)*
U.S. EPA MCL		NA	5	NA	5	100	NA	NA	5	NA	5	7	70	700	NA	5	NA	5	100	1,000	5	2	10,000
Well ID	Date																						
MW-1	03/22/93	NR	0.9 J	NR	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NR	<0.1 B	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5
	09/26/94	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	NR	<10	<10	<10	-	<10	<10	<10	<10
	04/20/95	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	-	<10	<10	<10	<10
	02/18/99	<10	0.66 J	<1.0	<1.0	0.40 J	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	<2.0	<1.0
	01/05/00	<10	0.65 J,B	<1.0	<1.0	0.37 J	<2.0	0.083 J	<2.0	<1.0	<1.0	0.22 J	<1.0	0.14 J	<10	0.35 J,B	<1.0	<1.0	-	0.097 J	<1.0	<2.0	<1.0
	06/06/00	<10	0.57 J	<1.0	<1.0	0.30 J	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	<2.0	<1.0
	03/15/01	10 UJ	0.40 J	<1.0	<1.0	0.38 J	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	<2.0	<1.0
	08/29/01	<10	<1.0	<1.0	<1.0	0.32 J	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	<2.0	<1.0
	04/25/02	10 U	<1.0	<1.0	<1.0	0.17 J	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	1.0 U	<1.0	<1.0	-	<1.0	<1.0	<2.0	<1.0
	09/18/02	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	<2.0	<1.0
	04/09/03	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	<2.0	<1.0
	04/25/04	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	0.24 J	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	<2.0	1.0
	02/15/06	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	-	1.0 U	1.0 U	2.0 U	1.0 U
	08/30/06	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U
	06/13/07	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U
	07/24/08	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U
07/14/09	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	
07/21/10	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 UJ	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	
10/13/11	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	
MW-4	03/24/93	NR	18 J	NR	<0.5	0.4 J	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.3 J	<0.5	NR	<4.1 B,J	<0.5	<0.5	-	0.1 J	<0.5	<0.5	<0.5
	09/26/94	<10	11	<10	<1.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	NR	<10	<10	<10	-	<10	<10	<10	<10
	04/24/95	<10	15	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	-	<10	<10	<10	<10
	02/18/99	<10	5.7	<1.0	<1.0	0.20 J	<2.0	<1.0	<2.0	<1.0	<0.1	<1.0	9.8	<1.0	<10	<1.0	<1.0	0.16 J	-	0.16 J	0.20 J	<2.0	<1.0
	01/05/00	<10	6.9 B	<1.0	<1.0	0.26 J	<2.0	<1.0	<2.0	0.13 J	<1.0	0.45 J	3.3	<1.0	<10	0.11 J,B	<1.0	<1.0	-	0.090 J	0.15 J	0.30 J	<1.0
	06/06/00	<10	4.8	<1.0	<1.0	0.20 J	<2.0	<1.0	<2.0	0.11 J	<1.0	<1.0	3.8	<1.0	<10	<1.0	<1.0	0.30 J	-	<1.0	<1.0	0.18 J	<1.0
	03/14/01	<10	3.6	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	3.2	<1.0	<10	<1.0	<1.0	0.66 J	-	<1.0	0.42 J	<2.0	<1.0
	08/29/01	<10	12	<1.0	<1.0	0.21 J	<2.0	<1.0	0.26 J	<1.0	<1.0	<1.0	1.5	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	<2.0	<1.0
	04/25/02	<10	10	<1.0	<1.0	0.21 J	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	1.2	<1.0	<10	1.0 U	<1.0	<1.0	-	<1.0	<1.0	<2.0	<1.0
	09/18/02	<10	7.8	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	1.0	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	<2.0	<1.0
	04/09/03	<10	2.2	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	0.84 J	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	<2.0	<1.0
	04/26/04	10 U	2.5	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	0.50 J	<1.0	<10	<1.0	<1.0	0.72 J	-	<1.0	<1.0	<2.0	<1.0
	02/15/06	10 U	3.8	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	0.53 J	1.0 U	10 U	1.0 U	1.0 U	0.33 J	-	1.0 U	1.0 U	2.0 U	1.0 U
	08/29/06	10 U	9.1	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U
	06/13/07	10 U	7.1	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 UJ	1.0 U	0.26 J	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U
	07/24/08	10 U	4.4	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.48 J	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.28 J	2.0 U	1.0 U
	07/16/09	10 U	1.2	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	0.34 J	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U
	07/20/10	10 U	2.0	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U
10/13/11	10 U	1.1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	
02/08/13	10 U	1.2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	
06/11/14	25 U	1.2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	

Table B-1
Historical Summary of Detected TCL Volatile Organic Compounds in Groundwater (ug/L)
Carroll and Dubies Superfund Site
Town of Deerpark, Orange County, New York

Analyte		Acetone	Benzene	Carbon Disulfide	Carbon Tetrachloride	Chloro-benzene	Chloroethane	Chloroform	Chloromethane	1,1-DCA	1,2-DCA	1,1-DCE	1,2-DCE (total)	Ethylbenzene	2-Hexanone	Methylene Chloride	1,1,2,2-PCA	PCE	Styrene	Toluene	TCE	Vinyl Chloride	Xylenes (total)
NYSDEC SGV		50 (G)	1 (S)	NA	5 (S)	5 (S)*	5 (S)*	7 (S)	1	5 (S)*	0.6 (S)	5 (S)*	5 (S)*	5 (S)*	50 (G)	5 (S)*	5 (S)*	5 (S)*	5 (S)*	5 (S)*	5 (S)*	2 (S)	5 (S)*
U.S. EPA MCL		NA	5	NA	5	100	NA	NA	5	NA	5	7	70	700	NA	5	NA	5	100	1,000	5	2	10,000
Well ID	Date																						
OW-2	03/23/93	NR	<0.5	NR	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	55	<0.5	NR	<1.3 B	<0.5	50	-	<0.5	22	<0.5	<0.5
	09/23/94	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	130	<10	NR	<10	<10	100	-	<10	24	<10	<10
	04/23/95	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	85	<10	<10	<10	<10	76	-	<10	22	<10	<10
	02/17/99	<50	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<10	<5.0	<5.0	<5.0	130	<5.0	<50	3.6 J,B	<5.0	86	-	<5.0	22	<10	<5.0
	01/05/00	<10	0.46 J	<5.0	<5.0	<5.0	<10	<5.0	<10	<5.0	<5.0	<5.0	150	<5.0	<50	<5.0	<5.0	80	-	<5.0	21	0.72 J	<5.0
	06/06/00	<33	<3.3	<3.3	<3.3	<3.3	<6.7	<3.3	<6.7	<3.3	<3.3	<3.3	99	<3.3	<33	<3.3	<3.3	80	-	<3.3	19	<6.7	<3.3
	03/15/01	<100	<10	<10	<10	<10	<20	<10	<20	<10	<10	<10	310	<10	<100	4.6 J	<10	160	-	<10	32	<20	<10
	08/29/01	<25	<2.5	<2.5	<2.5	<2.5	<5.0	<2.5	<5.0	<2.5	<2.5	<2.5	69	<2.5	<25	<2.5	<2.5	61	-	<2.5	15	<5.0	<2.5
	04/25/02	<25	<2.5	<2.5	<2.5	<2.5	<5.0	<2.5	<5.0	<2.5	<2.5	<2.5	81	<2.5	<25	1.2 U	<2.5	60	-	<2.5	18	0.95 J	<2.5
	09/18/02	<29	<2.9	<2.9	<2.9	<2.9	<5.7	<2.9	<5.7	<2.9	<2.9	<2.9	85	<2.9	<29	<2.9	<2.9	68	-	<2.9	18	<5.7	<2.9
	04/09/03	<120	<12	<12	<12	<12	<25	<12	<25	<12	<12	<12	290	<12	<120	<12	<12	160	-	<12	29	<25	<12
	04/26/04	10 U	1.5 J	<6.7	<6.7	<6.7	<13	<6.7	<13	<6.7	<6.7	<6.7	170	<6.7	<67	<6.7	<6.7	110	-	1.3 J	22	<13	<6.7
	02/15/06	40 U	4.0 U	4.0 U	4.0 U	4.0 U	8.0 U	4.0 U	8.0 U	4.0 U	4.0 U	4.0 U	150	4.0 U	40 U	4.0 U	4.0 U	120	-	4.0 U	20	8.0 U	4.0 U
	05/23/06	80 U	8.0 U	8.0 U	8.0 U	8.0 U	16 U	8.0 U	16 U	8.0 U	8.0 U	8.0 U	250	8.0 U	80 U	8.0 U	8.0 U	130	8.0 U	8.0 U	22	16 U	8.0 U
	08/30/06	25 U	2.5 U	2.5 U	2.5 U	2.5 U	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	74	2.5 U	25 U	2.5 U	2.5 U	90	2.5 U	2.5 U	16	5.0 U	2.5 U
	11/29/06	120 U	12 U	12 U	12 U	12 U	25 U	12 U	25 U	12 U	12 U	12 U	280	12 U	120 U	12 U	12 U	140	12 U	12 U	24	25 U	12 U
	06/13/07	20 U	2.0 U	2.0 U	2.0 U	2.0 U	4.0 U	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	36	2.0 U	20 U	2.0 UJ	2.0 U	52	2.0 U	2.0 U	12	4.0 U	2.0 U
	07/24/08	20 U	2.0 U	2.0 U	2.0 U	2.0 U	4.0 U	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	30	0.96 J	20 U	2.0 U	2.0 U	59	2.0 U	2.0 U	11	4.0 U	1.1 J
	07/16/09	25 U	2.5 U	2.5 U	2.5 U	2.5 U	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	53	2.5 U	25 U	2.5 U	2.5 U	62	2.5 U	2.5 U	9.7	5.0 U	2.5 U
	07/21/10	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 UJ	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	39	1.0 U	10 U	1.0 U	1.0 U	77	1.0 U	1.0 U	12	2.0 U	1.0 U
	10/13/11	25 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	98	2.5 U	2.5 U	2.5 U	2.5 U	110	2.5 U	2.5 U	15	2.5 U	5.0 U
	02/06/13	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	330	10 U	10 U	10 U	10 U	180	10 U	10 U	26	10 U	20 U
	06/11/14	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	54	1.0 U	10 U	5.0 U	1.0 U	94	1.0 U	1.0 U	11	1.0 U	2.0 U
OW-5	03/23/93	NR	<3.0 J	NR	<0.5	0.1 J	<0.5	<0.5	<1.3	<0.5	<0.6	<0.5	8.0 R	<0.5	NR	<3.8	<0.6	1.0	-	<0.5	<1.3	1.8	<0.6
	09/29/94	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	19	<10	NR	<10	<10	<10	-	<10	<10	<10	<10
	04/25/95	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	7 J	<10	<10	<10	<10	<10	-	<10	<10	<10	<10
	02/18/99	<17	0.67 J	<1.7	<1.7	0.20 J	<3.3	<1.7	<3.3	<1.7	<1.0	<1.7	33	<1.7	<17	1.3 J,B	<1.0	7.8	-	<1.7	5.4	<3.3	<1.7
	01/06/00	1.3 J	0.66 J	<1.0	<1.0	0.29 J	<2.0	<1.0	<2.0	<1.0	<1.0	0.20 J	38	<1.0	<10	0.25 J,B	<1.0	18	-	0.041 J	9.0	0.26 J	<1.0
	06/07/00	<10	0.91 J	<1.0	<1.0	0.19 J	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	7.3	<1.0	<10	<1.0	<1.0	2.4	-	<1.0	1.7	<2.0	<1.0
	03/14/01	<10	0.46 J	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	14	<1.0	<10	<1.0	<1.0	6.2	-	<1.0	3.7	<2.0	<1.0
	08/29/01	<12	<1.2	<1.2	<1.2	0.21 J	<2.5	<1.2	<2.5	<1.2	<1.2	<1.2	29	<1.2	<12	<1.2	<1.2	7.0	-	<1.2	4.5	<2.5	<1.2
	04/24/02	14 U	0.35 J	<1.4	<1.4	0.20 J	<2.9	<1.4	<2.9	<1.4	<1.4	<1.4	37	<1.4	<14	1.4 U	<1.4	10	-	<1.4	5.3	<2.9	<1.4
	09/19/02	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	31	<1.0	<10	<1.0	<1.0	9.5	-	<1.0	5.3	<2.0	<1.0
	04/10/03	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	7.8	<1.0	<10	<1.0	<1.0	5.5	-	<1.0	3	<2.0	<1.0
	04/25/04	<10	0.38 J	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	8.6	<1.0	<10	<1.0	<1.0	5.2	-	<1.0	2.5	<2.0	<1.0
	02/16/06	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	6.2	1.0 U	10 U	1.0 U	1.0 U	4.3	-	1.0 U	2.0	2.0 U	1.0 U
	05/23/06	10 U	0.69 J	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	20	1.0 U	10 U	1.0 U	1.0 U	5.7	1.0 U	1.0 U	2.6	0.27 J	1.0 U
	08/29/06	14 U	1.4 U	1.4 U	1.4 U	1.4 U	2.9 U	1.4 U	2.9 U	1.4 U	1.4 U	1.4 U	34	1.4 U	14 U	1.4 U	1.4 U	6.1	1.4 U	1.4 U	2.8 J	0.82 J	1.4 U
	11/29/06	10 U	0.26 J	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	30	1.0 U	10 U	1.0 U	1.0 U	7.1	1.0 U	1.0 U	3.5	2.0 U	1.0 U
	06/12/07	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	8.7	1.0 U	10 U	1.0 UJ	1.0 U	4.0	1.0 U	1.0 U	1.9	2.0 U	1.0 U
	07/23/08	1.0 U	0.53 J	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	10	1.0 U	1.0 U	1.0 U	1.0 U	4.4	1.0 U	1.0 U	1.8	0.28 J	1.0 U
	07/14/09	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	3.7	1.0 U	1.0 U	1.5	2.0 U	1.0 U
	07/21/10	10 U	0.37 J	1.0 U	1.0 U	1.0 U	2.0 UJ	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	4.8	1.0 U	10 U	1.0 U	1.0 U	4.2	1.0 U	1.0 U	1.6	2.0 U	1.0 U

Table B-1
Historical Summary of Detected TCL Volatile Organic Compounds in Groundwater (ug/L)
Carroll and Dubies Superfund Site
Town of Deerpark, Orange County, New York

Analyte		Acetone	Benzene	Carbon Disulfide	Carbon Tetrachloride	Chloro-benzene	Chloroethane	Chloroform	Chloromethane	1,1-DCA	1,2-DCA	1,1-DCE	1,2-DCE (total)	Ethylbenzene	2-Hexanone	Methylene Chloride	1,1,2,2-PCA	PCE	Styrene	Toluene	TCE	Vinyl Chloride	Xylenes (total)
NYSDEC SGV		50 (G)	1 (S)	NA	5 (S)	5 (S)*	5 (S)*	7 (S)	1	5 (S)*	0.6 (S)	5 (S)*	5 (S)*	5 (S)*	50 (G)	5 (S)*	5 (S)*	5 (S)*	5 (S)*	5 (S)*	5 (S)*	2 (S)	5 (S)*
U.S. EPA MCL		NA	5	NA	5	100	NA	NA	5	NA	5	7	70	700	NA	5	NA	5	100	1,000	5	2	10,000
Well ID	Date																						
OW-5	10/13/11	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.4	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
	02/06/13	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.3	1.0 U	1.0 U	1.0 U	1.0 U	1.5	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
	06/11/14	25 U	0.32 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10	1.0 U	10 U	5.0 U	1.0 U	4.0	1.0 U	1.0 U	1.5	1.0 U	2.0 U
OW-6	03/23/93	NR	<1.3 J	NR	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.1 J	<1.3 J	<0.5	NR	<0.7 J,B	<0.5	13	-	<0.5	<2.9	1.1	<0.5
	09/27/94	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	4 J	<10	NR	<10	<10	17	-	<10	6.0 J	<10	<10
	04/23/95	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	19	-	<10	5.0 J	<10	<10
	02/18/99	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	7.8	<1.0	<10	3.7 B	<1.0	20	-	<1.0	4.6	<2.0	<1.0
	01/06/00	1.4 J	0.19 J,B	0.58 J	<1.0	<1.0	<2.0	<1.0	0.17 J	<1.0	<1.0	0.28 J	5.1	<1.0	<10	0.26 J,B	<1.0	21	-	<1.0	4.6	<2.0	<1.0
	06/07/00	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	2.2	<1.0	<10	<1.0	<1.0	14	-	<1.0	2.6	<2.0	<1.0
	03/15/01	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	6.9	<1.0	<10	<1.0	<1.0	19	-	<1.0	3.9	<2.0	<1.0
	08/29/01	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	6.7	<1.0	<10	<1.0	<1.0	12	-	<1.0	2.3	<2.0	<1.0
	04/24/02	10 U	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	4.7	<1.0	<10	1.1 U	<1.0	12	-	<1.0	2.9	<2.0	<1.0
	09/19/02	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	7.8	<1.0	<10	<1.0	<1.0	15	-	<1.0	3.9	<2.0	<1.0
	04/09/03	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	21	<1.0	<10	0.34 J	<1.0	28	-	<1.0	6.8	<2.0	<1.0
	04/25/04	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	21	<1.0	<10	<1.0	<1.0	32	-	<1.0	6.3	<2.0	<1.0
	02/16/06	17 U	1.7 U	1.7 U	1.7 U	1.7 U	3.3 U	1.7 U	3.3 U	1.7 U	1.7 U	1.7 U	19	1.7 U	17 U	1.7 U	1.7 U	39	-	1.7 U	7.9	3.3 U	1.7 U
	05/23/06	17 U	1.7 U	1.7 U	1.7 U	1.7 U	3.3 U	1.7 U	3.3 U	1.7 U	1.7 U	1.7 U	24	1.7 U	17 U	1.7 U	1.7 U	39	1.7 U	1.7 U	7.8	3.3 U	1.7 U
	08/31/06	14 U	1.4 U	1.4 U	1.4 U	1.4 U	2.9 U	1.4 U	2.9 U	1.4 U	1.4 U	1.4 U	20	1.4 U	14 U	1.4 U	1.4 U	40	1.4 U	1.4 U	7.7	2.9 U	1.4 U
	11/29/06	17 U	1.7 U	1.7 U	1.7 U	1.7 U	3.3 U	1.7 U	3.3 U	1.7 U	1.7 U	1.7 U	20	1.7 U	17 U	0.75 J	1.7 U	41	1.7 U	1.7 U	8.6	3.3 U	1.7 U
	06/12/07	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	19	1.0 U	10 U	1.0 UJ	1.0 U	36	1.0 U	1.0 U	9.0	2.0 U	1.0 U
	07/23/08	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	16	1.0 U	10 U	1.0 U	1.0 U	31	1.0 U	1.0 U	6.3	2.0 U	1.0 U
	07/14/09	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	16	1.0 U	10 U	1.0 U	1.0 U	30	1.0 U	1.0 U	5.5	2.0 U	1.0 U
	07/21/10	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 UJ	1.0 U	0.31 J	1.0 U	1.0 U	1.0 U	20	1.0 U	10 U	1.0 U	1.0 U	42	1.0 U	1.0 U	8.6	2.0 U	1.0 U
	10/13/11	17 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	40	1.7 U	1.7 U	1.7 U	1.7 U	52	1.7 U	1.7 U	11	1.7 U	3.3 U
	02/06/13	13 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	19	1.3 U	1.3 U	1.3 U	1.3 U	44	1.3 U	1.3 U	8.9	1.3 U	2.5 U
	06/11/14	25 U	1.0 U	2.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	17	1.0 U	10 U	5.0 U	1.0 U	62	1.0 U	1.0 U	10	1.0 U	2.0 U
OW-8	03/23/93	NR	<0.5	NR	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NR	<0.8 B	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5
	09/26/94	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	NR	<10	<10	<10	-	<10	<10	<10	<10
	04/20/95	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	-	<10	<10	<10	<10
	02/18/99	<10	0.32 J	0.17 J	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<10	<10	0.32 J	<1.0	0.17 J	-	<1.0	<1.0	<2.0	<1.0
	01/06/00	<10	0.49 J	<1.0	<1.0	0.37 J	<2.0	0.083 J	<2.0	<1.0	<1.0	0.22 J	<1.0	0.14 J	<10	0.35 J,B	<1.0	<1.0	-	0.097 J	<1.0	<2.0	<1.0
	06/07/00	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	<2.0	<1.0
	03/15/01	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	<2.0	<1.0
	08/29/01	<10	0.20 J	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	<2.0	<1.0
	04/24/02	10 U	0.20 J	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	1.0 U	<1.0	<1.0	-	<1.0	<1.0	<2.0	<1.0
	09/19/02	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	<2.0	<1.0
	04/09/03	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	<2.0	<1.0
	04/25/04	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	<2.0	<1.0
	02/16/06	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	-	1.0 U	1.0 U	2.0 U	1.0 U
	08/31/06	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U
	06/12/07	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U
	07/23/08	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U
	07/14/09	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U

Table B-1
Historical Summary of Detected TCL Volatile Organic Compounds in Groundwater (ug/L)
Carroll and Dubies Superfund Site
Town of Deerpark, Orange County, New York

Analyte		Acetone	Benzene	Carbon Disulfide	Carbon Tetrachloride	Chloro-benzene	Chloroethane	Chloroform	Chloromethane	1,1-DCA	1,2-DCA	1,1-DCE	1,2-DCE (total)	Ethylbenzene	2-Hexanone	Methylene Chloride	1,1,2,2-PCA	PCE	Styrene	Toluene	TCE	Vinyl Chloride	Xylenes (total)
NYSDEC SGV		50 (G)	1 (S)	NA	5 (S)	5 (S)*	5 (S)*	7 (S)	1	5 (S)*	0.6 (S)	5 (S)*	5 (S)*	5 (S)*	50 (G)	5 (S)*	5 (S)*	5 (S)*	5 (S)*	5 (S)*	5 (S)*	2 (S)	5 (S)*
U.S. EPA MCL		NA	5	NA	5	100	NA	NA	5	NA	5	7	70	700	NA	5	NA	5	100	1,000	5	2	10,000
Well ID	Date																						
OW-8	07/20/10	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U
	10/13/11	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
	02/06/13	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
OW-10	10/29/93	NR	37	NR	<1.0	<1.0	<1.0	1.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NR	2.9 B	<1.0	<1.0	-	0.5 J	<1.0	<1.0	<1.0
	09/25/94	68	1,100	<10	<10	4 J	<10	<10	<10	<10	<10	<10	<10	9 J	NR	<10	<10	<10	-	8 J	<10	<10	53
	04/27/95	<50	2,600	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	-	<50	<50	<50	30 J
	02/16/99	<2,000	1,900	<200	<200	23 J	<400	<200	<400	<200	<200	<200	<200	<200	<2,000	100 J,B	<200	<200	-	25 J	<200	<400	<200
OW-10R	01/07/00	610	400	<17	<17	3.6 J,B	<33	<17	<33	<17	<17	<17	<17	4.3 J	<170	<17	<17	<17	-	8.5 J	<17	10 J	6.2 J
	06/06/00	<50	130 J	<5.0	<5.0	3.0 J	<10	<5.0	<10	<5.0	<5.0	<5.0	<5.0	2.2 J	<50	<5.0	<5.0	<5.0	-	0.52 J	<5.0	2.2 J	<5.0
	03/14/01	<10	35	<1.0	<1.0	3.6	0.80 J	<1.0	<2.0	<1.0	<1.0	<1.0	1.0	0.89 J	<10	<1.0	<1.0	<1.0	-	0.44 J	<1.0	2.4	<1.0
	08/29/01	<20	55	<2.0	<2.0	1.4 J	1.1 J	<2.0	<4.0	<2.0	<2.0	<1.0	3.5	<1.0	<20	<1.0	<2.0	<2.0	-	<1.0	<2.0	9.5	<2.0
	04/25/02	<10	30	<1.0	<1.0	4.0	2.8	<1.0	<2.0	<1.0	<1.0	<1.0	2.7	2.0 U	<10	1.2 U	<1.0	<1.0	-	1.0 U	<1.0	4.5	1.0 U
	09/19/02	<10	17	<1.0	<1.0	2.9	1.3 J	<1.0	<2.0	<1.0	<1.0	<1.0	1.5	0.91 J	<10	<1.0	<1.0	<1.0	-	0.39 J	<1.0	6.3	<1.0
	04/09/03	<10	6.8	<1.0	<1.0	3.1	0.54 J	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	0.43 J	<1.0	<1.0	-	<1.0	<1.0	0.72 J	<1.0
	04/26/04	<10	8.1	<1.0	<1.0	2.2	0.80 J	<1.0	<2.0	<1.0	<1.0	<1.0	0.57 J	0.22 J	<10	1.0 U	<1.0	<1.0	-	0.27 J	<1.0	0.99 J	<1.0
	02/15/06	10 U	3.2	1.0 U	1.0 U	1.4	0.52 J	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	-	1.0 U	1.0 U	0.47 J	1.3 U
	08/29/06	10 U	9.9	1.0 U	1.0 U	1.4	0.92 J	1.0 U	0.20 J	1.0 U	1.0 U	1.0 U	0.59 J	0.25 J	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.7 J	1.0 U
	06/13/07	10 U	4.7	1.0 U	1.0 U	1.4	0.94 J	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	0.47 J	1.0 U	10 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.89 J	1.0 U
	07/22/08	10 U	5.7	1.0 U	1.0 U	0.71 J	0.48 J	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	0.46 J	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.80 J	1.0 U
	07/15/09	10 U	2.7	1.0 U	1.0 U	2.3	0.62 J	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.33 J	1.0 U
	07/20/10	10 U	4.6	1.0 U	1.0 U	0.88 J	0.87 J	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	0.39 J	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.66 J	1.0 U
	10/13/11	10 U	2.4	1.0 U	1.0 U	5.1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
02/08/13	10 U	2.8	1.0 U	1.0 U	6.0	1.3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	
OW-13	10/28/93	NR	230	NR	<1.0	<1.0	<1.0	<1.0	<1.0	0.4 J	<1.0	<1.0	12	0.2 J	NR	1.2 J,B	<1.0	<1.0	-	4.8	0.9 J	<1.0	0.8 J
	09/29/94	<10	40	<10	<10	<10	<10	<10	<10	<10	<10	<10	6 J	<10	NR	<10	<10	<10	-	<10	<10	9 J	<10
	04/25/95	<10	350	<10	<10	<10	<10	<10	<10	<10	<10	<10	20	<10	<10	<10	<10	<10	-	<10	<10	34	<10
	02/16/99	<330	490	<33	<33	<33	<67	<33	<67	<33	<33	<33	52	<33	<330	18 J,B	<33	<33	-	7.6 J	<33	48 J	<33
	01/06/00	<200	620	<20	<20	<20	<40	3.5 J,B	<40	<20	<20	<20	56	2.3 J	<200	<20	<20	<20	-	2.7 J,B	1.3 J	58	<20
	06/07/00	<83	200	<8.3	<8.3	0.84 J	<17	<8.3	<17	<8.3	<8.3	<8.3	15	5.5 J	<83	<8.3	<8.3	<8.3	-	<8.3	<8.3	17	<8.3
	03/14/01	<50	130	<5.0	<5.0	<5.0	<10	<5.0	<10	<5.0	<5.0	<5.0	15	4.0 J	<50	3.0 J	<5.0	<5.0	-	<5.0	<5.0	12	<5.0
	08/29/01	<62	120	<6.2	<6.2	<6.2	<12	<6.2	<12	<6.2	<6.2	<6.2	12	<6.2	<62	<6.2	<6.2	<6.2	-	<6.2	1.1 J	9.9 J	<6.2
	04/24/02	<56	160	<5.6	<5.6	<5.6	<11	<5.6	<11	<5.6	<5.6	<5.6	11	<5.6	<56	<5.6	<5.6	<5.6	-	5.6 U	1.2 J	9.9 J	<5.6
	09/19/02	<33	81	<3.3	<3.3	<3.3	<6.7	<3.3	<6.7	<3.3	<3.3	<3.3	8.5	1.8 J	24 J	<3.3	<3.3	<3.3	-	<3.3	<3.3	5.9 J	<3.3
	04/10/03	<25	53	<2.5	<2.5	<2.5	<5.0	<2.5	<5.0	<2.5	<2.5	<2.5	5.9	1.6 J	<25	<2.5	<2.5	<2.5	-	<2.5	<2.5	4.9 J	<2.5
	04/25/04	<17	45	<1.7	<1.7	0.38 J	<3.3	<1.7	<3.3	<1.7	<1.7	<1.7	4.9	1.0 J	<17	<1.7	<1.7	<1.7	-	0.31 J	0.67 J	3.2 J	<1.7
OW-13R	02/20/06	10 U	15	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	0.60 J	1.0 U	10 U	1.0 U	1.0 U	1.0 U	-	0.29 J	1.0 U	1.1 J	1.0 U
	08/29/06	10 U	15	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	0.40 J	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.3 J	1.0 U
	06/12/07	10 U	11	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	0.42 J	1.0 U	10 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.86 J	1.0 U
	07/22/08	10 U/10 U	6.5 J/6.8 J	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	2.0 U/2.0 U	1.0 U/1.0 U	2.0 U/2.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	10 U/10 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	0.70 J/0.70 J	1.0 U/1.0 U
	07/14/09	10 U/10 U	13/12	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	2.0 U/2.0 U	1.0 U/1.0 U	2.0 U/2.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	2.4/2.3	1.0 U/1.0 U	10 U/10 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	0.64 J/0.63 J	1.6 J/1.6 J
	07/21/10	10 UJ/10 UJ	17/17	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	2.0 U/2.0 U																

Table B-1
Historical Summary of Detected TCL Volatile Organic Compounds in Groundwater (ug/L)
Carroll and Dubies Superfund Site
Town of Deerpark, Orange County, New York

Analyte		Acetone	Benzene	Carbon Disulfide	Carbon Tetrachloride	Chloro-benzene	Chloroethane	Chloroform	Chloromethane	1,1-DCA	1,2-DCA	1,1-DCE	1,2-DCE (total)	Ethylbenzene	2-Hexanone	Methylene Chloride	1,1,2,2-PCA	PCE	Styrene	Toluene	TCE	Vinyl Chloride	Xylenes (total)
NYSDEC SGV		50 (G)	1 (S)	NA	5 (S)	5 (S)*	5 (S)*	7 (S)	1	5 (S)*	0.6 (S)	5 (S)*	5 (S)*	5 (S)*	50 (G)	5 (S)*	5 (S)*	5 (S)*	5 (S)*	5 (S)*	5 (S)*	2 (S)	5 (S)*
U.S. EPA MCL		NA	5	NA	5	100	NA	NA	5	NA	5	7	70	700	NA	5	NA	5	100	1,000	5	2	10,000
Well ID	Date																						
OW-15	09/24/94	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	NR	<10	<10	<10	-	<10	<10	<10	<10
	04/26/95	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	-	<10	<10	<10	<10
	02/16/99	<10	1.1	<1.0	<1.0	0.52 J	<2.0	<1.0	<2.0	0.25 J	<1.0	<1.0	0.38 J	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	1.5 J	<1.0
	01/07/00	1.3 J	1.0 B	0.92 J	<1.0	0.64 J	<2.0	<1.0	<2.0	0.31 J	<1.0	0.57 J	<1.0	<1.0	<10	0.35 J,B	0.15 J,B	<1.0	-	0.074 J	<1.0	1.4 J	<1.0
	06/06/00	<10	0.91 J	<1.0	<1.0	0.60 J	<2.0	<1.0	<2.0	0.28 J	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	1.0 J	<1.0
	03/14/01	<10	1.2	<1.0	<1.0	0.67 J	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	0.37 J	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	1.1 J	<1.0
	08/28/01	2.2 J,B	0.61 J	<1.0	<1.0	0.35 J	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	0.52 J	<1.0
	04/25/02	<10	0.99 J	<1.0	<1.0	0.47 J	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	1.0 U	<1.0	<1.0	-	<1.0	<1.0	0.91 J	<1.0
	09/18/02	<10	0.69 J	<1.0	<1.0	0.43 J	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	<2.0	<1.0
	04/08/03	<10	1.2	<1.0	<1.0	0.67 J	<2.0	<1.0	<2.0	0.33 J	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	<1.0 J	<1.0
	04/23/04	<10	1.2	<1.0	<1.0	0.67 J	<2.0	<1.0	<2.0	0.29 J	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	0.90 J	<1.0
	02/15/06	10 U	0.88 J	1.0 U	1.0 U	0.53 J	2.0 U	1.0 U	2.0 U	0.24 J	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	-	1.0 U	1.0 U	0.73 J	1.3 U
	08/29/06	10 U	0.78 J	1.0 U	1.0 U	0.51 J	2.0 U	1.0 U	0.37 J	0.22 J	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.82 J	1.0 U
OW-16	09/24/94	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	NR	<10	<10	<10	-	<10	<10	<10	<10
	04/26/95	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	-	<10	<10	<10	<10
	02/17/99	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	<2.0	<1.0
	01/06/00	1.4 J	0.082 J,B	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	0.61 J	<1.0	<1.0	<10	0.30 J,B	<1.0	<1.0	-	<1.0	<1.0	<2.0	<1.0
	06/07/00	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	<2.0	<1.0
	03/14/01	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	<2.0	<1.0
	08/28/01	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	0.36 J	<1.0	<1.0	<10	0.80 J	<1.0	<1.0	-	<1.0	<1.0	<2.0	<1.0
	04/24/02	10 U	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	1.9 U	<1.0	<1.0	-	<1.0	<1.0	<2.0	<1.0
	09/19/02	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	<2.0	<1.0
	04/10/03	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	<2.0	<1.0
	04/25/04	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	<2.0	<1.0
	02/17/06	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	0.37 J	1.0 U	10 U	1.0 U	1.0 U	1.0 U	-	1.0 U	1.0 U	2.0 U	1.0 U
	08/31/06	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	0.35 J	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U
OW-17	02/20/06	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	-	1.0 U	1.0 U	2.0 U	1.0 U
	05/24/06	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U
	08/30/06	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	0.20 J	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U
	11/30/06	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U

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Analyte		Acetone	Benzene	Carbon Disulfide	Carbon Tetrachloride	Chloro-benzene	Chloroethane	Chloroform	Chloromethane	1,1-DCA	1,2-DCA	1,1-DCE	1,2-DCE (total)	Ethylbenzene	2-Hexanone	Methylene Chloride	1,1,2,2-PCA	PCE	Styrene	Toluene	TCE	Vinyl Chloride	Xylenes (total)
NYSDEC SGV		50 (G)	1 (S)	NA	5 (S)	5 (S)*	5 (S)*	7 (S)	1	5 (S)*	0.6 (S)	5 (S)*	5 (S)*	5 (S)*	50 (G)	5 (S)*	5 (S)*	5 (S)*	5 (S)*	5 (S)*	5 (S)*	2 (S)	5 (S)*
U.S. EPA MCL		NA	5	NA	5	100	NA	NA	5	NA	5	7	70	700	NA	5	NA	5	100	1,000	5	2	10,000
Well ID	Date																						
OW-18	09/23/94	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	NR	<10	<10	<10	-	<10	<10	<10	<10
	04/29/95	<10	12	<10	<10	10 J	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	-	1 J	<10	<10	29
	02/17/99	<17	4.7	<1.7	<1.7	3.4	1.0 J	<1.7	<3.3	<1.7	<1.7	<1.7	0.54 J	<1.7	<17	1.0 J,B	<1.7	<1.7	-	<1.7	<1.7	<3.3	1.1 J
	01/07/00	2.7 J	5.6 B	1.0	<1.0	4.5	3.0	<1.0	<2.0	0.66 J	<1.0	0.29 J	<1.0	<1.0	<10	0.40 J,B	<1.0	<1.0	-	0.22 J	0.14 J	0.29 J	1.8
	06/08/00	<10	4.8	<1.0	<1.0	4.6	1.3 J	<1.0	<2.0	0.24 J	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	<2.0	<1.0
	03/16/01	10 UJ	3.1	<1.0	<1.0	3.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	0.38 J	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	<2.0	1.4
	08/28/01	2.3 J,B	2.4 J	<1.0	<1.0	3.6 J	<2.0	<1.0	<2.0	0.18 J	<1.0	<1.0	0.38 J	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	<2.0	1.3 J
	04/24/02	10 U	1.5	<1.0	<1.0	4.3	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	0.28 J	<1.0	<10	1.6 U	<1.0	<1.0	-	1.0 U	<1.0	<2.0	1.7
	09/17/02	<10	2.9	<1.0	<1.0	5.5	1.3 J	<1.0	<2.0	0.36 J	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	<2.0	2.0
	04/08/03	2.6 J	2.9	<1.0	<1.0	5.6	1.2 J	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	-	<1.0	<1.0	<2.0	1.2
	04/23/04	10 U	3.3	<1.0	<1.0	7.3	0.74 J	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	<2.0	1.2
	02/17/06	10 U	5.1	1.0 U	1.0 U	10	3.2	1.0 U	2.0 U	1.6	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	-	0.49 J	1.0 U	2.0 U	10
	08/30/06	10 U	3.7	1.0 U	1.0 U	7.8	0.91 J	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	
	06/14/07	10 U	1.2	1.0 U	1.0 U	6.5	0.46 J	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	
	07/22/08	10 U	1.5	1.0 U	1.0 U	6.9	0.40 J	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	
	07/16/09	10 U	2.3	1.0 U	1.0 U	9.6	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	0.34 J	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	
	07/22/10	1.6 J	2.8	1.0 U	1.0 U	11	0.41 J	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	0.63 J	
	10/13/11	10 U	3.7	1.0 U	1.0 U	8.7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.5	2.0 U
	02/07/13	10 U	5.1	1.0 U	1.0 U	11	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.1	2.0 U
	06/11/14	25 U	3.2	1.0 U	1.0 U	16	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.32 J	1.0 U	10 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
OW-19	09/27/94	<10	10 J	<10	<10	5 J	15	<10	<10	<10	<10	<10	<10	<10	NR	<10	<10	<10	-	<10	<10	<10	<10
	04/28/95	<10	8 J	<10	<10	6 J	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	-	<10	<10	<10	<10
	02/17/99	<10	5.8	<1.0	<1.0	7.1	6.1	<1.0	<2.0	0.27 J	<1.0	<1.0	3.3	<1.0	<10	0.16 J,B	<1.0	<1.0	-	0.16 J	0.14 J	10	<1.0
	01/05/00	0.94 J	3.7 B	<1.0	<1.0	10	2.7	<1.0	<2.0	0.16 J	0.27 J	<1.0	1.5	<1.0	<10	0.25 J,B	<1.0	<1.0	-	0.15 J	0.15 J	2.1	<1.0
	06/08/00	<10	2.3	<1.0	<1.0	5.2	1.9 J	<1.0	<2.0	<1.0	<1.0	<1.0	1.0	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	<2.0	<1.0
	03/16/01	10 UJ	1.7	<1.0	<1.0	3.8	1.4 J	<1.0	<2.0	<1.0	<1.0	<1.0	0.96 J	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	1.3 J	<1.0
	08/28/01	2.7 J,B	1.9 J	<1.0	<1.0	7.2 J	0.92 J	<1.0	<2.0	<1.0	<1.0	0.35 J	0.46 J	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	<2.0	<1.0
	04/23/02	10 U	1.3	<1.0	<1.0	6.5	0.71 J	<1.0	<2.0	<1.0	<1.0	<1.0	0.43 J	<1.0	<10	1.0 U	<1.0	<1.0	-	<1.0	<1.0	<2.0	<1.0
	09/17/02	<10	0.64 J	<1.0	<1.0	4.9	0.73 J	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	<2.0	<1.0
	04/08/03	2.5 J	3	<1.0	<1.0	4.9	1.7 J	<1.0	<2.0	<1.0	<1.0	<1.0	0.81 J	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	0.68 J	<1.0
	04/24/04	10 U	2.1	<1.0	<1.0	6	1.3 J	<1.0	<2.0	<1.0	<1.0	<1.0	0.58 J	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	0.56 J	<1.0
	02/17/06	10 U	3.4	1.0 U	1.0 U	5.6	1.9 J	1.0 U	<2.0	1.0 U	1.0 U	1.0 U	1.3	1.0 U	10 U	1.0 U	1.0 U	1.0 U	-	1.0 U	1.0 U	2.9	1.0 U
	08/31/06	3.1 J	3.3	1.0 U	1.0 U	13	1.8 J	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	0.85 J	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.1	1.0 U
	06/14/07	10 U	2.1	1.0 U	1.0 U	8.8 J	1.3 J	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	0.73 J	1.0 U	10 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.87 J	1.0 U
	07/22/08	10 U	1.4	1.0 U	1.0 U	11	0.91 J	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	0.49 J	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.62 J	1.0 U
	07/15/09	10 U	1.9	1.0 U	1.0 U	7.9	1.0 J	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	0.94 J	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.1	1.0 U
	07/22/10	1.3 J	1.2	1.0 U	1.0 U	11	0.85 J	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	0.65 J	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.63 J	1.0 U
	10/13/11	10 U	3	1.0 U	1.0 U	8.4	1.4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.3	2.0 U
	02/07/13	10 U	2.5	1.0 U	1.0 U	14	1.2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.1	2.0 U
	06/11/14	25 U	1.4	1.0 U	1.0 U	12	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.5	1.0 U	10 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.5	2.0 U

Table B-1
Historical Summary of Detected TCL Volatile Organic Compounds in Groundwater (ug/L)
Carroll and Dubies Superfund Site
Town of Deerpark, Orange County, New York

Analyte		Acetone	Benzene	Carbon Disulfide	Carbon Tetrachloride	Chloro-benzene	Chloroethane	Chloroform	Chloromethane	1,1-DCA	1,2-DCA	1,1-DCE	1,2-DCE (total)	Ethylbenzene	2-Hexanone	Methylene Chloride	1,1,2,2-PCA	PCE	Styrene	Toluene	TCE	Vinyl Chloride	Xylenes (total)
NYSDEC SGV		50 (G)	1 (S)	NA	5 (S)	5 (S)*	5 (S)*	7 (S)	1	5 (S)*	0.6 (S)	5 (S)*	5 (S)*	5 (S)*	50 (G)	5 (S)*	5 (S)*	5 (S)*	5 (S)*	5 (S)*	5 (S)*	2 (S)	5 (S)*
U.S. EPA MCL		NA	5	NA	5	100	NA	NA	5	NA	5	7	70	700	NA	5	NA	5	100	1,000	5	2	10,000
Well ID	Date																						
OW-21	09/22/94	6 J	5 J	<10	<10	<10	<10	10 J	<10	<10	<10	<10	<10	<10	NR	<10	<10	<10	-	<10	<10	<10	<10
	04/29/95	<10	8 J	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	-	<10	<10	<10	<10
	02/16/99	<10	5.8	<1.0	<1.0	0.11 J	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	0.26 J	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	0.89 J	<1.0
	01/04/00	<10	3.8 B	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	0.11 J	<1.0	<1.0	<1.0	<1.0	<10	0.10 J,B	<1.0	<1.0	-	0.055 J	<1.0	0.46 J	<1.0
	06/07/00	<10	5.4	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	0.54 J	<1.0
	03/13/01	10 UJ	4.5	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	0.70 J	<1.0
	08/30/01	10 U	3.2	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	0.38 J	<1.0	<1.0	-	<1.0	<1.0	0.25 J	<1.0
	04/25/02	<10	2.4	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	1.0 U	<1.0	<1.0	-	<1.0	<1.0	0.33 J	<1.0
	09/18/02	<10	2.5	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	0.39 J	<1.0
	04/09/03	<10	3.7	<1.0	<1.0	<1.0	<2.0	<1.0	5.5	<1.0	<1.0	<1.0	<1.0	<1.0	<10	0.51 J	<1.0	<1.0	-	<1.0	<1.0	0.88 J	<1.0
	04/24/04	<10	2.9	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	0.56 J	<1.0
	02/16/06	10 U	3.0	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	-	1.0 U	1.0 U	0.52 J	1.0 U
	08/29/06	10 U	2.4	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	0.27 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.83 J	1.0 U
	06/13/07	10 U	2.1	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.67 J	1.0 U
	07/23/08	10 U	1.8	1.0 U	1.0 U	1.0 U	<2.0	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.74 J	1.0 U
	07/15/09	10 U	2.1	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.80 J	1.0 U
	07/20/10	10 U	1.9	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.71 J	1.0 U
	10/13/11	10 U	2.2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
	02/08/13	10 U	2.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
	06/10/14	25 U	1.8	0.98 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.27 J	1.0 U	10 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.78 J	2.0 U
OW-22	09/24/94	<10	100	<10	<10	9 J	<10	<10	<10	<10	<10	<10	<10	<10	NR	<10	<10	<10	-	<10	<10	<10	5 J
	04/28/95	<10	48	<10	<10	10 J	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	-	1 J	<10	<10	<10
	02/17/99	<25	46	<2.5	<2.5	8.0	<5.0	<2.5	<5.0	<2.5	<2.5	<2.5	2.4 J	<2.5	<25	1.1 J,B	<2.5	<2.5	-	0.87 J	<2.5	4.2 J	3.5
	01/04/00	1.5 J	37 B	0.41 J	<1.2	5.8	<2.5	<1.2	<2.5	0.21 J	<1.2	<1.2	<1.2	0.098 J	<12	0.23 J,B	<1.2	<1.2	-	0.58 J	0.073 J	1.5 J	1.7
	06/07/00	<10	11	<1.0	<1.0	5.8	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	<1.0	1.4
	03/13/01	10 UJ	12	<1.0	<1.0	8.2	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	0.70 J	<1.0	<10	<1.0	<1.0	<1.0	-	0.56 J	<1.0	0.76 J	1.9
	08/30/01	10 U	3.4	<1.0	<1.0	4.6	<2.0	0.34 J	<2.0	<1.0	<1.0	<1.0	0.36 J	<1.0	<10	0.36 J	<1.0	<1.0	-	0.45 J	<1.0	<2.0	1.7
	04/25/02	<10	4.2	<1.0	<1.0	3.7	<2.0	<1.0	<2.0	<1.0	0.29 J	<1.0	<1.0	<1.0	<10	1.2 U	<1.0	<1.0	-	1.0 U	<1.0	0.39 J	2.7 U
	09/18/02	<10	2.9	<1.0	<1.0	4.2	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	-	<1.0	<1.0	<2.0	1.8
	04/09/03	<10	8.7	<1.0	<1.0	8.5	0.66 J	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	0.40 J,B	<1.0	<1.0	-	<1.0	<1.0	0.56 J	1.6
	04/24/04	10 U	4.2	<1.0	<1.0	5.9	0.24 J	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	-	0.23 J	<1.0	0.32 J	1.1
	02/16/06	10 U	7.5	1.0 U	1.0 U	11	0.31 J	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	0.59 J	1.0 U	<10	0.59 J	1.0 U	1.0 U	-	0.26 J	1.0 U	0.29 J	1.0
	08/31/06	10 U	2.8	1.0 U	1.0 U	5.3	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	0.37 J	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	0.24 J	1.0 U	0.41 J	1.1
	06/14/07	10 U	3.5	1.0 U	1.0 U	4.8	0.26 J	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	0.50 J	1.0 U	10 U	1.0 UJ	1.0 U	1.0 U	1.0 U	0.21 J	1.0 U	0.37 J	0.76 J
	07/23/08	10 U	1.9	1.0 U	1.0 U	4.6	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	0.17 J	1.0 U	0.32 J	0.66 J
	07/15/09	10 U	5.1	1.0 U	1.0 U	7.8	0.34 J	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	0.53 J	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	0.19 J	1.0 U	0.35 J	1.0 U
	07/20/10	10 U	2.5	1.0 U	1.0 U	4.5	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	0.38 J	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.26 J	0.64 J
	10/13/11	10 U	5.3	1.0 U	1.0 U	18	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
02/08/13	10 U	6.2	1.0 U	1.0 U	9.3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	
06/10/14	25 U	3.5	1.0 U	1.0 U	5.9	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.41 J	1.0 U	10 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.37 J	0.39 J	

Table B-1
Historical Summary of Detected TCL Volatile Organic Compounds in Groundwater (ug/L)
Carroll and Dubies Superfund Site
Town of Deerpark, Orange County, New York

Analyte		Acetone	Benzene	Carbon Disulfide	Carbon Tetrachloride	Chloro-benzene	Chloroethane	Chloroform	Chloromethane	1,1-DCA	1,2-DCA	1,1-DCE	1,2-DCE (total)	Ethylbenzene	2-Hexanone	Methylene Chloride	1,1,2,2-PCA	PCE	Styrene	Toluene	TCE	Vinyl Chloride	Xylenes (total)
NYSDEC SGV		50 (G)	1 (S)	NA	5 (S)	5 (S)*	5 (S)*	7 (S)	1	5 (S)*	0.6 (S)	5 (S)*	5 (S)*	5 (S)*	50 (G)	5 (S)*	5 (S)*	5 (S)*	5 (S)*	5 (S)*	5 (S)*	2 (S)	5 (S)*
U.S. EPA MCL		NA	5	NA	5	100	NA	NA	5	NA	5	7	70	700	NA	5	NA	5	100	1,000	5	2	10,000
Well ID	Date																						
OW-23	02/17/06	10 U	0.38 J	1.0 U	1.0 U	1.0 U	0.31 J	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	-	1.0 U	1.0 U	0.66 J	1.0 U
	05/23/06	10 U	1.0 U	1.0 U	1.0 U	1.0 U	0.31 J	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	0.44 J	1.0 U	1.0 U	0.39 J	1.0 U
	08/30/06	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.42 J	1.0 U
	11/30/06	10 U	0.23 J	1.0 U	1.0 U	1.0 U	0.27 J	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	0.22 J	1.0 U	0.51 J	1.0 U
OW-24	02/20/06	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	-	0.22 J	1.0 U	2.0 U	<1.0
	05/24/06	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	0.45 J	1.0 U	1.0 U	2.0 U	1.0 U
	08/30/06	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U
	11/29/06	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	3.6 U	1.0 U	1.0 U	1.0 U	0.18 J	1.0 U	2.0 U	1.0 U
	07/22/10	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	0.47 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	3.6 U	1.0 U	1.0 U	1.0 U	0.18 J	1.0 U	2.0 U	1.0 U
	10/13/11	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
	02/07/13	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
OW-25	02/20/06	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	-	0.17 J	1.0 U	1.0 U	1.0 U
	05/23/06	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U
	08/31/06	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U
	11/29/06	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U
	06/12/07	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U
	07/23/08	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U
	07/16/09	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U
	07/22/10	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U
	10/13/11	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
	02/07/13	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U

Notes:
TCL = Target Compound List
NYSDEC SGV = New York State Department of Environmental Conservation Standards (S) and Guidance (G) Values for groundwater
U.S. EPA MCL= United States Environmental Protection Agency Maximum Contaminant Level for drinking/groundwater
* = The principal organic contaminant (POC) standard for groundwater of 5 ug/L applies to this substance.
U (DATA VALIDATION QUALIFIER) = The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
< = Analyte not detected at reporting limit
B = Method blank contamination. The associated method blank contains the target analyte at a reportable level.
Red = Concentrations detected at or above regulatory limit
Blue = Analyte detected at less than regulatory limit, or analyte detected but no regulatory criteria specified
UJ = (DATA VALIDATION QUALIFIER) = Analyte not detected above the reporting limit; however, the reporting limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

Pre-1999 data from RETEC 1995
Pre-1999 analysis performed by Method 8240
1999 and later analyses performed by Method 8260B
NA = Not applicable; no criteria specified
NR = Analyte not reported
R = Data rejected during validation
J = Estimated result; result is less than reporting limit.

Appendix C
Data Quality Review
Checklists

Tier II
VOA Organic Data Review Summary

SDG No./Matrix: 240-38459-1		Completion Date: 7/10/2014	
Project No.: 104-0012, Carroll and Dubies Superfund; samples MW-4, OW-2, OW-5, OW-6, OW-13R, OW-18, OW-19, OW-21, OW-22, GW-DUP, TB-1, TB-2, FB-1, FB-2, Pump blank		Reviewer: Barbara Jones	
Laboratory: TestAmerica, Nashville TN through TestAmerica, North Canton OH			
Review Criteria	Data Qualified Yes / No	Samples Qualified	
1. Data completeness	No	The complete data package was provided in electronic format.	
2. Preservation/holding time	No	All analyses performed within allowable 10 days (by June 21).	
3. GC/MS tuning – Form V	No	Form Vs provided for each analytical shift (2 instruments); mass spectrum of BFB met relative abundance criteria in all cases.	
4. Calibration:			
4A – Initial – Form VI	No	IC Form VIs provided for 2 instruments; % RSD met criteria in all cases; acetone, 2-butanone, and 2-hexanone (ND in samples) had RRFs less than 0.05. Confirmed with laboratory that these are poor purgers where RRFs may be less than 0.05. These analytes are typical lab artifacts and not site-related.	
4B – Continuing – Form VII	No	CC Form VIIs provided for 2 instruments. CCs run for all analytical shifts. %D met criteria in all cases; acetone, 2-butanone, and 2-hexanone (ND in samples) had RRFs less than 0.05. Confirmed with laboratory that these are poor purgers where RRFs may be less than 0.05. These analytes are typical lab artifacts and not site-related.	
5. Blanks:			
5A - Laboratory blanks – Form IV	Yes	MB490-170597/7 had detectable tetrachloroethene (0.146 J ug/L, w/RL=1.0 ug/L and MDL=0.014 ug/L. Qualified MW-4 as 1.0U for tetrachloroethene.	
5B - Trip blanks/field blanks	Yes	2 TBs (filled in lab and traveling with cooler) and 2 FBs (filled in field with deionized water provided by lab). Acetone detected in TB1 and FB2 but not field samples, no qualifications. Methylene chloride detected in FB1 and FB2, and in OW-6, OW-18, OW-13R, and GW-DUP at levels below reporting limit of 5 ug/L. Methylene chloride detects in these samples were qualified as 5U.	
5C - Equipment rinsates	Yes	Pump rinsate blank made from lab de- ionized water poured through pump. Methylene chloride and acetone detected, samples qualified as above for TBs/FBs.	
6. Surrogate recovery – Form II	No	All VOA samples listed on the appropriate form; all recoveries within QC limits.	
7. Lab-control sample – Form III	No	Four LCS samples total, 2 with duplicates. All recoveries and duplicate RPDs within QC limits.	
8. Matrix spike/matrix spike duplicates – Form III	No	OW-5 used for MS/MSD. All recoveries and all RPDs within QC limits.	
9. Field duplicates	No	OW-13R and GW-DUP, with benzene reported greater than QL, other analytes reported at less than QL. RPDs range from 0 to 19%, all within QC limits.	

10.	Internal standards performance - Form VIII	No	Forms provided for 2 instruments for all IC and CC cal dates. All area counts and retention times were within QC limits.
11.	Compound quantitation and reporting	No	Spot checked quantitation report against Form I and found no problems. Quantitation report reports on-column value in ug/L. No samples were diluted, therefore no dilutions to check.
12.	Tentatively identified compounds	NA	TIC reporting is not part of this program.

Tier II
RSK Method Dissolved Gases

SDG No./Matrix: Water – 240-38459-1		Completion Date: 7/11/2014	
Project No.: 104-0012, Carroll and Dubies Superfund; Samples MW-4, OW-2, OW-5, OW-6, OW-13R, OW-18, OW-19, OW-21, OW-22, GW-DUP		Reviewer: Barbara Jones	
Laboratory: TestAmerica, North Canton OH			
Review Criteria	Data Qualified Yes / No	Samples Qualified	
1. Data completeness	No	Complete electronic copy with required forms and raw data provided; relevant pages printed for review as required.	
2. Preservation/holding time	No	All samples analyzed by June 21, within 10-day holding time for samples collected on 6/11.	
3. Analytical Sequence – Form VIII	No	Analytical sequence shows that sample analyses were properly bracketed by MBs, LCS, and CC sample.	
4. Calibration:			
4A – Initial – Form VI	No	IC on 6/12. RTs within QC limits; RSDs within limits. No results listed as qualified on Form VI.	
4B – Continuing - Form VII	No	7 sets of Form VIIs for analyses shown on analytical sequence. RTs and %D within limits for all CCs bracketing samples.	
5. Blanks:			
5A - Laboratory blanks – Form IV	No	Two method blanks covering all samples, both nondetectable. No data qualifications.	
5B - Trip blanks	NA	Trip and field blanks analyzed for VOAs only.	
5C - Equipment rinsates	NA	Pump blank analyzed for VOAs only.	
6. Surrogate recovery – Form II	No	Surrogate (1,1,1-trifluoroethane) within QC limits for all field and QC samples.	
7. Lab control sample – Form III	No	Two LCS analyses; recoveries within QC limits in both cases.	
8. Matrix spike/matrix spike duplicates – Form III	No	OW-5 and OW-22 used for MS/MSDs. Both pairs were within QC limits for recoveries and RPDs.	
9. Field duplicates		OW-13R and GW-DUP: 0% RPD for methane and ethane for these duplicate samples.	
10. Compound quantitation and reporting	No	Spot check quantitation report with Form I for OW-22, which is 3x dilution. Results correctly reflected on Form I.	
11. Tentatively identified compounds	NA	TIC reporting not part of this program.	

**Tier II
Inorganic Data Review Summary**

SDG No./Matrix: Water – 240-38459-1		Completion Date: 7/14/2014	
Project No.: 104-0012, Carroll and Dubies Superfund; Samples MW-4, OW-2, OW-5, OW-6, OW-13R, OW-18, OW-19, OW-21, OW-22, GW-DUP		Reviewer: Barbara Jones	
Laboratory: TestAmerica, North Canton OH			
Review Criteria	Data Qualified Yes / No	Comments	
1. Data completeness	No	QC summaries, raw data, and other relevant information provided in electronic format.	
2. Preservation/holding time	Yes	For nitrate analysis samples MW-4, OW-2, OW-6, GW-DUP, OW-13R, OW-21, and OW-22 were received with less than one shift remaining on holding time therefore were not analyzed within 48 hours. Positive results OW-2 and OW-6 were qualified J- as estimated low.	
3. Calibration – Form 2 IN	No	Calibration summaries provided for applicable parameters (nitrate, chloride, sulfate, TOC). CCV and CCB results within QC limits.	
4. Blanks:			
4A – Laboratory – Form 3 IN	No	Alkalinity was detected in one method blank at a concentration greater than the MDL but less than the reporting limit. All sample results were positive and greater than the reporting limit, therefore sample results were not qualified. Sulfate was detected in one method blank at a concentration greater than the MDL but less than the reporting limit. All sample results were positive and greater than the reporting limit, therefore sample results were not qualified.	
4B – Field blanks	NA	Field, trip, and pump rinsate blanks were analyzed for VOCs only, not inorganics.	
5. Lab control sample – Form 7A-IN	No	Laboratory control sample results provided for all parameters. In all cases recoveries are within QC limits.	
6. Laboratory duplicate sample – Form 6 IN	No	OW-5 lab duplicate for alkalinity; RPD within QC limits.	
7. Field duplicate sample	No	Field duplicates are OW-13R and GW-DUP. RPDs for all detected constituents were 8% or less, within QC limits.	
8. Laboratory matrix spike sample analysis - Form 5 IN	Yes	MS/MSD high recoveries for sulfate for OW-2 and OW-5; results were qualified as J+.	
9. Detection Limits – Form 9 IN	No	Form 9s for all constituents provide MDLs and RLs in duplicate. RLs are satisfactory for data requirements of this program.	
10. Analysis Run Log – Form 13 N	No	Form 13Ns cover all parameters and show MB, LCS, CCB, CCV (except for alkalinity and sulfide where NA), and samples.	
11. Sample quantitation and reporting	No	Checked MW-4 and OW-5 Form Is against raw data and found no transcription or dilution errors.	

Inorganic Parameter:	Holding Time:
- Chloride	28 days
- Nitrate	48 hours
- Sulfate	28 days
- Total Alkalinity	14 days
- Total Organic Carbon	28 days
- Total Sulfide	7 days

$$RPD = \frac{|A-B|}{\frac{1}{2}(A+B)} \times 100$$