February 2, 2017

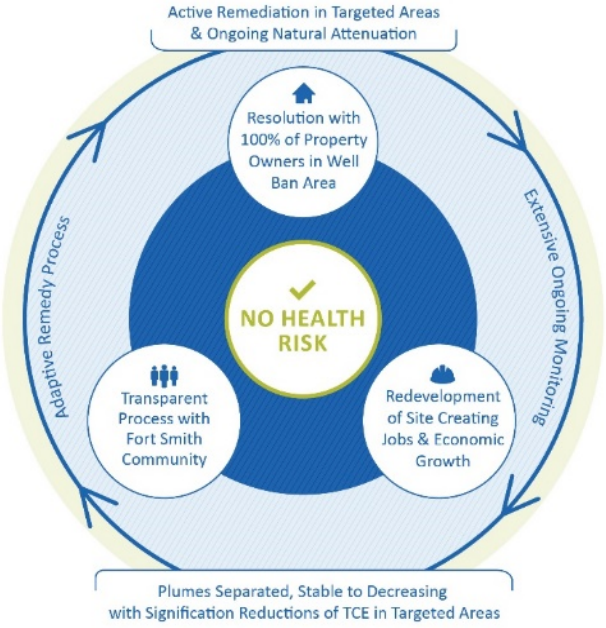
Mr. Josh Hesselbein
Enforcement and Inspection Branch
Hazardous Waste Division, ADEQ
5301 Northshore Drive
North Little Rock, Arkansas 72118-5317

RE: WHIRLPOOL TRANSMITTAL OF THE 2016 ANNUAL REPORT

Dear Mr. Hesselbein:

Whirlpool Corporation is pleased to submit the 2016 Annual Report to the Arkansas Department of Environmental Quality (ADEQ), in accordance with the Revised Groundwater Monitoring Plan (RGWMP) approved by ADEQ in September 2016 and the Remedial Action Decision Document (RADD) issued by the Arkansas Department of Environmental Quality (ADEQ) on December 27, 2013 and revised in November 2015 (Revised RADD). The 2016 Annual Report summarizes the coordinated efforts between our organizations in addressing trichloroethylene (TCE) in the groundwater under and adjacent to the former Whirlpool manufacturing facility in Fort Smith. The report provides an overview of progress made both on- and off-site, as well as a thorough description of the scientific data collected, validated and summarized throughout 2016. This report will be made available on www.whirlpoolfortsmith.com, to all access by the City of Fort Smith and area residents.

As a threshold matter, Whirlpool believes it is important to report that nothing in the findings over the last three years has changed the conclusion that there remains **no health risk** to Fort Smith residents from exposure to TCE in the groundwater beneath or near the Whirlpool property.



In summary, Whirlpool's extensive work in Fort Smith over the past three years (2014 through 2016) has resulted in progress on a number of fronts, including:

1. The completion of required and supplemental active remediation activities following a science-driven, Adaptive Remedy process that resulted in significant reductions of TCE concentrations in the source area and enhanced the separation of the north and south plumes. Extensive monitoring and analysis of the site also indicates that groundwater in both of the now-separated north and south plumes shows stable to decreasing trends in TCE concentration, demonstrating that natural attenuation processes are effectively remediating groundwater impacts at the site;
2. Extensive, continuing monitoring and controls implemented to ensure there remains no health risk to area residents, track the progress of remediation efforts and determine appropriate next steps based on the latest scientific data available;
3. Completion of resolution agreements with all residents whose properties are located in the original well drill ban area;
4. Ongoing efforts to redevelop the site to create economic growth and benefit the entire Fort Smith community; and

5. Ensuring that City officials and area residents have timely access to the most current information and are fully informed of significant developments through our website and regular presentations to City Directors.

These accomplishments provide the foundation for Whirlpool's next phase of work, focused on the re-use and redevelopment of the site, which will continue to be conducted in close coordination with ADEQ. Whirlpool remains committed to ensuring that remediation is progressing through Monitored Natural Attenuation (MNA) with appropriate monitoring, along with other actions if needed, to assure ongoing public safety and productive re-use of the site.

I. Summary of Investigation, Remediation and Monitoring Activities Completed in 2016

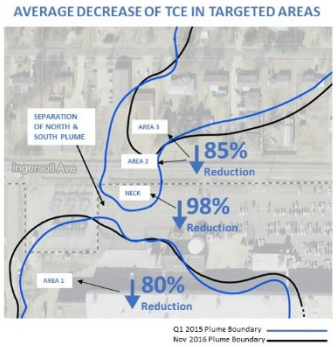
Site investigation, remedial efforts, and monitoring to date have included not only the actions described in the RADDs but also voluntary remedial efforts completed to enhance and expand reductions in TCE concentrations in soil and groundwater at on-site and off-site locations. As noted above, a notable change in groundwater monitoring requirements occurred after ADEQ approved the RGWMP. The RGWMP modifies the monitoring schedule from a quarterly basis for all wells to a semi-annual basis for select wells and an annual basis for a broader group of wells. The RGWMP was approved in September 2016 which resulted in completion of quarterly monitoring events during the first two quarters of 2016, and completion of the annual groundwater monitoring event in November of 2016. The monitoring efforts completed in 2016 included the collection of groundwater samples for the continued evaluation of the in-situ chemical oxidation (ISCO) and in-situ chemical reduction (ISCR) efforts performed at on-site and off-site locations to reduce TCE concentrations. Consistent with Whirlpool's commitment in the RGWMP, an Action Plan is provide in Appendix F of the 2016 Annual Report due to TCE concentrations at plume boundary wells MW-189 and MW-194 which have marginally exceeded the remedial action levels. The Action Plan includes additional investigation activities at these well locations to assess whether remediation is necessary and, if warranted, to gather data useful to its design.

Other monitoring activities in 2016 included indoor air and sub-slab vapor monitoring events within the Whirlpool building in February and June of 2016. This data will be considered while assessing potential future repurposing opportunities for the Whirlpool building and property.

The absence of any completed pathways of exposure (i.e. direct exposure, consumption or vapor intrusion) has been further confirmed by the investigation and monitoring activities described and presented in the Annual Report. Therefore, there is no unacceptable risk to human health or the environment. Whirlpool has completed settlement agreements with the property owners where groundwater impacts have been characterized and these settlement agreements include: deed restrictions precluding the use of groundwater; a financial settlement; and, an access agreement to facilitate future investigation or monitoring, if required.

II. Impact of Remediation Activities

Remediation efforts that took place in the first two year period (2014 and 2015) and the continued remediation and MNA efforts throughout 2016 have resulted in reductions of TCE concentrations in the source area, created and increased the separation of the north and south plume, and limited further plume migration at the north plume boundary.



Overall, TCE concentrations in the source area have been reduced by:

- Approximately 98% within the neck area
- Approximately 85% within Areas 2 and 3;
- Approximately 80% in monitoring wells within the linear drainage feature in the source area in Area 1.

Groundwater monitoring for the south and north plume consistently showed stable to decreasing trends in TCE concentration, demonstrating natural attenuation processes are effectively remediating groundwater impacts at the site. Continued groundwater monitoring has confirmed TCE concentrations are generally stable to decreasing for 86% and 83% of monitoring wells in the south and north plumes, respectively.

III. Property Redevelopment

Whirlpool has made significant progress in the redevelopment of the property.

The warehouse was sold to Spartan Logistics in September 2014 and Spartan is already employing area residents on site. Whirlpool remains in continued discussions with multiple interested buyers for the remainder of the property.

Additionally, further redevelopment options are in progress that are expected to benefit the entire Fort Smith community and these plans will be discussed more fully with state and local officials in during 2017. Whirlpool remains confident in completing a transaction that will result in the long-term and productive use of the site.

IV. Community Engagement and Resolution with Residents

Throughout the past three years, Whirlpool has worked diligently to keep its commitment to treat residents fairly and to ensure that City officials and Fort Smith residents were informed of important developments.

In 2015, Whirlpool reached agreements with 100% of residents in the well drilling ban area. As a result of these agreements, the environmental class action lawsuit and individual lawsuits against Whirlpool were dismissed.

Whirlpool has provided progress reports at City Directors' meetings, and continues to regularly update the website www.whirlpoolfortsmith.com to provide the Fort Smith community, elected officials and members of the press with the latest information and extensive background materials, including all reports and data submitted to ADEQ related to this project.

V. Conclusion

The progress made by Whirlpool during the mutually agreed, initial two-year remediation process in 2014 and 2015 and the subsequent monitoring in 2016 in Fort Smith has resulted in the completion of a series of remediation activities that have shown real progress in the cleanup of the site. At the same time, Whirlpool has worked to rebuild trust with area residents, closely monitored the site to ensure no health risks exist, and made real strides toward repurposing the property for the benefit of the entire community.

We are looking forward to advancing to the next phase of our efforts on behalf of the residents, economy and environment in Fort Smith, and will continue to work directly with ADEQ using the latest scientific data to appropriately manage this site.

Sincerely,



Jeff Noel, Vice President, Whirlpool Corporation





2016 Annual Report

Whirlpool Facility
Fort Smith, Arkansas

Prepared for:
Whirlpool Corporation

Prepared by:
Ramboll Environ US Corporation

Date:
February 2017

Project Number:
34-37500Q

Author

Professional Geologist

STATE OF ARKANSAS
REGISTERED PROFESSIONAL GEOLOGIST
No. 1825
ANDREW A. GREMOS

RAMBOLL ENVIRON

Table of Contents

Page

1 Introduction 1

2 2016 Activities 3

3 Annual Monitoring Event 8
3.1 Static Water Level Measurements 8
3.2 Monitoring Well Sampling 8
3.3 Other Site Monitoring Activities 10

4 Annual Monitoring Event Results 12
4.1 Hydrogeology 12
4.2 Groundwater Analytical Results 14
4.2.1 VOC Results 14
4.2.2 Monitored Natural Attenuation Results 16
4.2.2.1 Chemical Lines of Evidence 17
4.2.2.2 Geochemical Lines of Evidence 18
4.2.2.3 Microbial Lines of Evidence 19
4.2.3 Groundwater Data Quality Assessment 20
4.2.3.1 Field Data 20
4.2.3.2 Laboratory Analytical Data 20

5 Plume Stability 21
5.1 Lines of Evidence 21
5.1.1 Statistical Analysis of Temporal Trends 21
5.1.2 Isoconcentration Maps 26
5.1.3 Concentration vs. Time Plots 26
5.2 Summary of Plume Stability 27
5.3 TCE Mass Estimate 28

6 ISCO Remedial Effectiveness 31
6.1 Rebound 32

7 ISCR Remedial Effectiveness 35

8 Summary and Conclusions 38

9 References 40

List of Tables

Table 1: Constituents of Concern and RADD Groundwater Remedial Action Levels
Table 2: Groundwater Monitoring Well Network Sampled
Table 3: Summary of Monitoring Well Static Water Level Measurements
Table 4: Summary of Final Well Ground Water Field Parameter Measurements
Table 5: Summary of Vertical Hydraulic Gradient
Table 6: Summary of Monitoring Well Ground Water Sampling Analytical Results (Annual Event 2016)
Table 7: Historical Summary of Groundwater Concentration for TCE and Daughter-Products
Table 8: Summary of Statistical Temporal Trend Analysis (2009-2016)
Table 9: Summary of Temporal Trend Analysis by Well Category
Table 10: Summary of Average Detected Concentrations (2009–2016)
Table 11: Summary of TCE Concentrations (Area 1) September 2014 (November 2016)
Table 12: Summary of TCE Concentrations (MW-25, MW-85 and MW-86) (May 2014–November 2016)
Table 13: Summary of TCE Concentrations (Supplemental Neck Area) (May 2014–November 2016)
Table 14: Summary of TCE Concentrations (Areas 2 and 3) (May 2014-November 2016)
Table 15: Calculation of Variation in TCE Concentration By Sampling Event
Table 16: Summary of Water Quality Parameters (MW-61R Pilot Test)
Table 17: Groundwater Sample Analytical Results ISCR Pilot Wells (July 2015 to October 2016)
Table 18: Summary of TCE Concentrations (ISCR Pilot Study)

List of Figures

Figure 1A: Annual Event Potentiometric Surface Map
Figure 1B: Vertical Groundwater Gradients Observed in Nested Wells
Figure 2A: Annual Event TCE Isoconcentration Map (Northern and Northeastern Plumes)
Figure 2B: Annual Event TCE Isoconcentration Map (Southern Plume)
Figure 3: TCE Concentration with Time at Source Area Onsite Wells
Figure 4: TCE, cis-1,2-DCE, VC Average Concentration vs Time (ITMW–9 and ITMW-10)
Figure 5: TCE, cis-1,2-DCE, VC Average Concentration vs Time (ITMW-19 and MW-25)
Figure 6: TCE Concentration vs Time (MW-61/MW-61R)
Figure 7: ISCR Pilot PRB Treatment Zones

List of Appendices

Appendix A: Calibration Logs
Appendix B: Annual 2016 Soil Vapor Monitoring and Vapor Intrusion Assessment Report
Appendix C: Laboratory Analytical Data
Appendix D: Data Validation Report
Appendix E: TCE Mass Estimate Calculations
Appendix F: Action Plan

1 Introduction

Ramboll Environ US Corporation (Ramboll Environ) has prepared this 2016 Annual Report (Report) for the Fort Smith, Arkansas, Site (Site) on behalf of Whirlpool Corporation (Whirlpool). The work was performed and the report prepared in accordance with the Revised Groundwater Monitoring Plan (RGWMP) approved by ADEQ in September 2016, the Remedial Action Decision Document (RADD) issued by the Arkansas Department of Environmental Quality (ADEQ) on December 27, 2013 and revised in November 2015 (Revised RADD) and ADEQ comment letters and Ramboll Environ/Whirlpool responses to previous quarterly monitoring reports.

This report presents an overview of all activities completed in association with site investigation, remediation and monitoring for the 2016 calendar year. Site investigation, remedial efforts and monitoring to date have included not only the actions described in the RADDs but also voluntary remedial efforts completed to enhance and expand reductions in trichloroethylene (TCE) concentrations in soil and groundwater at onsite and offsite locations. As noted above, a notable change in groundwater monitoring requirements occurred after ADEQ approved the RGWMP. The RGWMP modifies the monitoring schedule from a quarterly basis for all wells to a semi-annual basis for select wells and an annual basis for a broader group of wells. Since the RGWMP was approved in September 2016, this resulted in completion of quarterly monitoring events during the first two quarters of 2016 and completion of the annual groundwater monitoring event in November of 2016.

Monitoring efforts completed in 2016 included the collection of groundwater samples for the continued evaluation of source area, onsite, offsite and plume boundary wells as well as the evaluation of the in-situ chemical oxidation (ISCO) and in-situ chemical reduction (ISCR) efforts.

Other activities in 2016 included indoor air and sub-slab vapor monitoring events within the Whirlpool building in February and June of 2016.

The absence of any completed pathways of exposure (i.e. direct exposure, consumption or vapor intrusion) has been further confirmed by the investigation and monitoring activities described and presented in the Annual Report. Therefore, there is no unacceptable risk to human health or the environment. Whirlpool has completed settlement agreements with the property owners where groundwater impacts have been characterized and these settlement agreements include: deed restrictions precluding the use of groundwater; a financial settlement; and an access agreement to facilitate future investigation or monitoring, if required.

In addition to site investigation, remediation and monitoring activities performed at the site, Whirlpool has been actively working with vendors for the sale of the equipment within the building and marketing the building and property for sale for re-use.

This Annual Report consists of the following sections describing the investigation and monitoring activities performed at the site in 2016:

- Summary of 2016 Activities (Section 2);
- Summary of the 2016 Annual Groundwater Monitoring Event (Section 3);

- Summary of the 2016 Annual Groundwater Monitoring Results (Section 4);
- Plume Stability (Section 5);
- ISCO Remedial Effectiveness (Section 6);
- ISCR Remedial Effectiveness (Section 7); and
- Summary and Conclusions (Section 8).

2 2016 Activities

During 2016, the following activities were completed:

- January 2016 First Quarter Groundwater Monitoring Event;
- February, Indoor Air and Sub-slab Vapor Sample Collection;
- April, Abandonment of MW-31R, MW-32R and MW-33R;
- April/May, Second Quarter 2016 Groundwater Monitoring Event;
- June, Indoor Air and Sub-slab Vapor Sample Collection;
- August, Abandonment of MW-66, MW-67R, MW-193 and Installation of MW-194 through MW-196; and
- November, Annual Monitoring Event.

Brief summaries of each activity completed during 2016 are provided below. Further detailed information may be found in the report references provided at the end of each summary below.

2.1 First Quarter Monitoring

Groundwater monitoring activities were performed during the first quarter of 2016 between January 6-8 and 11-14. This event included measuring static water levels from 108 wells followed by the collection of groundwater samples from 104 wells. After static water level measurement activities were completed, low-flow sampling was performed at each well via the use of a peristaltic pump and dedicated polyethylene tubing. During sampling, water quality parameters were measured via a water quality probe and flow thru cell. After stabilization of water quality parameters, groundwater samples were collected by directly filling laboratory provided sampling bottles from the pump discharge. Sample containers were labeled and packed on ice in insulated coolers before being shipped under chain of custody procedures to applicable analytical laboratories for analysis of volatile organic compounds (VOCs) and monitored natural attenuation (MNA) parameters. The first quarter groundwater monitoring results, “first quarter groundwater monitoring data re-confirms broadly stable to decreasing trends for TCE concentrations.” ISCO and ISCR events continue to be effective and reduction dechlorination is continuing to occur in various locations of the plume.

Soil vapor samples were attempted to be collected on January 11-13 and 18, 2016. Water was encountered in all of the soil vapor monitoring points, except VP-9 which was dry. However, a soil vapor sample could not be collected from VP-9 after 7.5 hours of sustained vacuum. Perched water filled the vapor points at locations VP-5, VP-6, VP-7, VP-8, VP-10, VP-12, VP-14 and VP-15; and therefore, water samples were collected from these vapor points. Evaluation of these data points concluded that risk estimates for vapor intrusion from groundwater in the neighborhood to the north of the site are below ADEQ’s risk management limits of 10^{-4} and 1 for cumulative cancer risk and non-cancer hazards, respectively.

Additional information regarding activities completed during first quarter 2016 monitoring can be found in the First Quarter 2016 Progress Report completed in May 2016.

2.2 February Indoor Air and Sub-Slab Vapor Sample Collection

In February 2016 indoor air and sub-slab soil vapor samples were collected within and beneath the former Whirlpool manufacturing building to evaluate potential vapor intrusion within the building. Indoor air samples were collected on February 18, 2016, from open areas at six locations within the building, while the building ventilation system was operating normally with several overhead doors open. An outdoor air sample was also collected on February 18, 2016, upwind of the building, to evaluate potential contributions from sources other than vapor intrusion. Indoor and outdoor air samples were collected at breathing height over an 8-hour period.

Permanent sub-slab soil vapor sampling ports were installed through the floor of the building adjacent to the indoor air sampling locations on February 24, 2016. Sub-slab vapor sampling via these sample ports was conducted on February 25, 2016, with building conditions similar to those during the collection of indoor air. Sub-slab samples were collected after at least 2 liters (L) of air was purged and tested for methane (CH_4), carbon dioxide (CO_2) and oxygen (O_2) content. Leak testing was conducted during purging and during the first 30 minutes of sampling. After the sampling train was determined to be adequately sealed, sub-slab soil vapor samples were collected.

The indoor air data from February 2016 does not indicate health risks from vapor intrusion in the open areas of the building when the building is operating with select overhead doors open and the ventilation system operating. The groundwater, soil and soil vapor data from beneath and around the building indicate that if floor penetrations occur, a potential exists for contaminants in the subsurface to volatilize and vapors could migrate into the indoor air in some parts of the building. An additional round of indoor air, outdoor air and sub-slab soil vapor monitoring was recommended considering performance of the monitoring with the overhead doors closed as well as monitoring during the summer months to assess if these conditions produced results that were materially different from the results of the February monitoring event (see Section 2.5 below for further discussion)

Additional information regarding the February indoor air and sub-slab soil vapor sampling and data can be found in the *Onsite Indoor Air and Sub-slab Vapor Data Report* dated on April 27, 2016.

2.3 April Well Abandonment

April 19-20, 2016, plume boundary monitoring wells MW-31R, MW-32R and MW-33R were abandoned due to pending road expansion and construction activities along Jenny Lind Road. The well abandonment activities were completed by an Arkansas licensed driller (McCray Drilling LLC) in accordance with ADPC&E Interim Policy 96-4 and included removal of the concrete well pad and PVC well casing followed by overdrilling. Following removal of the well material, a cement bentonite grout mixture was placed from the bottom of the borehole to the top by pressure grouting with a tremie pipe until the borehole was filled to the surface.

Additional information regarding the well abandonment can be found in the Monitoring Well Closure Notice dated April 8, 2016 and the Monitoring Well Closure Completion letter dated June 7, 2016.

2.4 Second Quarter Monitoring

Groundwater monitoring activities were performed during the second quarter of 2016 on April 18 and May 2-5. This event included measuring static water levels from 106 wells followed by the collection of groundwater samples from 104 wells. After static water level measurement activities were completed, low-flow sampling was performed at each well via the use of a peristaltic pump and dedicated polyethylene tubing. During sampling, water quality parameters were measured via a water quality probe and flow thru cell. After stabilization of water quality parameters, groundwater samples were collected by directly filling laboratory provided sampling bottles from the pump discharge. Sample containers were labeled and packed on ice in insulated coolers before being shipped under chain of custody procedures to applicable analytical laboratories for analysis VOCs and MNA parameters. Based upon these sample results it was concluded that, "Second quarter groundwater monitoring data re-confirms broadly decreasing to stable trends for TCE concentrations," ISCO and ISCR events continue to be effective and reduction dechlorination is continuing to occur in multiple locations within the plume.

Soil vapor samples were attempted to be collected on May 2-4, 2016. Water was encountered in all of the soil vapor monitoring points, except VP-9 which was dry. However, a soil vapor sample could not be collected from VP-9 after 22 hours and 52 minutes of sustained vacuum. Perched water filled the vapor points at locations VP-5, VP-6, VP-7, VP-8, VP-10, VP-12, VP-14 and VP-15; and therefore, water samples were collected from these vapor points. Evaluation of these data points concluded that risk estimates for vapor intrusion from groundwater in the neighborhood to the north of the site are below ADEQ's risk management limits of 10^{-4} and 1 for cumulative cancer risk and non-cancer hazards, respectively.

Additional information regarding activities completed during second quarter 2016 monitoring can be found in the Second Quarter 2016 Progress Report completed in August 2016.

2.5 June Indoor Air and Sub-slab Vapor Sample Collection

During June 2016 indoor air, outdoor air and sub-slab soil vapor samples were collected to determine if keeping the overhead doors closed combined with warmer weather produces results that are materially different from the results of the February air and vapor sampling. Indoor air samples were collected on June 14, 2016, while the building ventilation system was operating and with the overhead doors closed. An outdoor, background air sample was also collected on June 14, 2016, upwind of the building. Indoor and outdoor air samples were collected at breathing height over an 8 hour period.

Two new permanent sub-slab soil vapor sampling ports were installed on June 27, 2016, replacing the previously installed sub-slab ports in areas Q1 and Q4. Sub-slab vapor sampling

was conducted on June 28, 2016, with building conditions similar to those during the collection of indoor air samples. Sub-slab samples were collected after at least 2 L of air was purged and tested for CH_4, CO_2 and O_2 content. Leak testing was conducted during purging and during the first 30 minutes of sampling. After the sampling train was determined to be adequately sealed, soil vapor samples were collected.

The indoor air data collected in June 2016 suggests a potential complete exposure pathway due to vapor intrusion in certain areas of the building while all overhead doors are closed and the ventilation system is operating. TCE concentrations in indoor air in areas Q1 and Q6 exceeded indoor air screening levels; however, the respective sub-slab soil vapor concentrations at areas Q1 and Q6 were below screening levels suggesting the indoor air concentrations are not entirely indicative of a complete exposure pathway regarding subsurface vapors migrating into the building. The groundwater, soil and soil vapor data from other areas beneath and around the building indicate that if floor penetrations occur, a potential exists for contaminants in the subsurface to volatilize and vapors could migrate into the indoor air in some parts of the building. Future monitoring was recommended after the building has been renovated to assess whether, under the actual circumstances, a potential complete exposure pathway would exist due to vapor intrusion and, if so, the significance of the potential exposure pathway and the need for remedial or protective measures, if any.

Additional information regarding the June indoor air and sub-slab soil vapor sampling and data can be found in the *Onsite Indoor Air and Sub-slab Vapor Data Report* dated on August 16, 2016.

2.6 August Well Abandonment and Installation

During August 2016, plume boundary monitoring wells MW-66, MW-67R and MW-193 were abandoned due to pending road construction activities along Jenny Lind Road. Also during August three monitoring wells (MW-194, MW-195 and MW-196) were installed to monitor groundwater conditions at the northeast portion of the north plume along Jenny Lind Road. The well abandonment activities for MW-66, MW-67R and MW-193 were completed on August 2, 2016, by an Arkansas licensed driller (McCray Drilling LLC) in accordance with ADPC&E Interim Policy 96-4. The drilling and installation of the new monitoring wells were completed August 3-4, 2016, using hollow stem auger drilling techniques. During monitoring well installation, soils were logged by a Ramboll Environ geologist for United States Geological Survey (USGS) classification and select soil samples were collected in laboratory supplied containers from upper, middle and lower areas of the identified permeable zone at each location for laboratory analysis of VOCs, total organic carbon (TOC) and magnetic susceptibility. Following well installation, well development was completed in accordance with ADEQ guidance (Interim Policy PRCR 96-4, Section L, page 9). After monitoring well development activities were completed, low-flow sampling was performed at each well via the use of a peristaltic pump and dedicated polyethylene tubing. After stabilization, groundwater samples were collected in laboratory supplied containers, labeled and packed on ice in insulated coolers before being shipped under chain of custody procedures to applicable analytical laboratories for analysis of VOCs and MNA parameters.

The results of the groundwater sampling identified only one detection of TCE in the newly installed monitoring wells above the remedial action level (RAL) [5 micrograms per liter (µg/L)]. A slightly elevated TCE concentration of 6.6 µg/L was identified at MW-194. TCE was not detected in groundwater from MW-195 or MW-196. No other detected results exceeded established RALs. Groundwater monitoring continues in MW-194 through MW-196 in accordance with the RGWMP.

Additional information regarding the monitoring well abandonment and installation can be found in the Monitoring Well Installation Report completed on November 11, 2016.

2.7 Annual Monitoring Event

Results of the November 2016 monitoring event are discussed in the following Sections 3-7. Based upon review of the November 2016 groundwater monitoring data and subsequent data validation, TCE concentrations in groundwater at monitoring well locations MW-189 and MW-194 have been determined to exceed the TCE RALs (i.e. 5 µg/L) during two consecutive monitoring events. An Action Plan is presented as Appendix F.

3 Annual Monitoring Event

Quarterly groundwater monitoring was performed during the first and second quarters of 2016 with field sampling events occurring during the weeks of January 4, January 11, April 18 and May 2, 2016. As discussed above, the RGWMP was approved in September of 2016 and the Annual 2016 Groundwater Monitoring Event (Annual event) was completed during the week of November 7, 2016. Activities performed during all monitoring events included measuring water levels and collecting groundwater samples for analysis of VOCs and MNA parameters as described within the RADD during quarterly events and for the parameters described in the RGWMP during the Annual event (as discussed below).

Constituents of concern (COCs) monitored in groundwater are defined within the RGWMP. Table 1 of the plan lists the wells sampled during the Annual event (72 wells are included in the Annual groundwater monitoring event). Samples from all wells were analyzed for VOCs via EPA Method 8260. Groundwater samples from certain designated monitoring wells were analyzed for the following MNA parameters: CH_4, ethane, ethene, ferric iron, sulfate, nitrate, TOC, dehalococcoides (DHC), vinyl chloride (VC) reductase, sulfide, acetylene and dissolved hydrogen. The COCs and additional geochemical parameters were analyzed in collected groundwater samples to evaluate the effectiveness of MNA in support of the natural degradation of site related chlorinated compounds.

The following sections describe the groundwater monitoring activities completed during the Annual event.

3.1 Static Water Level Measurements

On November 7, 2016, static water levels and well depths were measured in a total of 107 monitoring wells. Monitoring wells were opened to allow water levels to equilibrate to atmospheric conditions prior to their measurement using an electronic water level meter. The instrument was calibrated by the manufacturer prior to its purchase and therefore does not require calibration in the field. The water levels were measured to the nearest 0.01 foot with an accuracy of 0.02 feet per the manufacturer's specification. The water level meter probe and tape (i.e. the only non-dedicated sampling equipment) were decontaminated prior to use at each well by spraying and scrubbing the probe and tape with Alconox detergent mixed with distilled water and then rinsing the probe and tape with distilled water prior to being wiped dry.

The Annual event static water level measurements are presented in Table 3 along with the previous four quarters of water level measurements recorded from project wells.

3.2 Monitoring Well Sampling

After static water level measurement activities were completed, low-flow sampling was performed at each well via the use of a peristaltic pump and dedicated polyethylene tubing. The tubing was placed at a depth within the well approximately equal to the midpoint of the well screen. The wells were then purged, via United States Environmental Protection Agency (USEPA) low stress (low flow) purging procedures (USEPA, 1996); at a rate generally less than

0.1 L per minute to minimize the amount of drawdown in the well and to reduce the likelihood of elevated turbidity. Flow rates and drawdown were checked continuously during purging. Purge water was then placed into a container prior to transfer to the onsite water holding tank for ultimate proper disposal.

Water quality parameters were measured via a water quality probe and flow thru cell. Instruments were calibrated daily prior to the start of sampling. All instruments were calibrated at a minimum of once per day. Calibration logs are included as Appendix A. Readings were recorded approximately every five minutes until the parameters stabilized. Stabilization was considered obtained when three consecutive rounds of parameter readings met the following:

- Turbidity: +/- 10% for values greater than 10 Nephelometric Turbidity Unit (NTU), or less than 10 NTU;
- Dissolved oxygen (DO): +/- 10% for values greater than 0.5 milligrams per liter (mg/L);
- Specific conductance: +/- 3%;
- Temperature: +/- 1^{o}C;
- pH: Within +/- 0.1 standard units; and
- Oxidation reduction potential (ORP): Within +/- 10 millivolts (mV).

Table 4 presents a summary of results for measured field parameters for the 2016 Annual event.

The groundwater samples were obtained by directly filling the laboratory provided sampling bottles from the peristaltic pump discharge. VOCs were collected in three 40 milliliter (mL) glass vials that contained hydrochloric acid as a preservative per standard procedures. Samples for assessing quality assurance/quality control (QA/QC) metrics were collected by alternately filling investigative and QA/QC sample bottles for each parameter. VOC sample bottles for both the investigative and the QA/QC sample were completely filled, purged of headspace and sealed. All other samples (i.e. for non VOC analysis) were collected in appropriate bottles as specified by the method and/or laboratory. Hach Test Kits (all verified with valid expiration dates) were used to measure ferrous iron in the field. Groundwater samples for analysis of dissolved hydrogen concentration were collected by the Microseeps gas stripping procedure (Microseeps, 2014).

A total of 70 groundwater samples, seven field duplicate samples, four matrix spike/matrix spike duplicate (MS/MSD) samples and five equipment blanks were collected during the 2016 Annual event. A sample was not collected from MW-99 due to the placement of stockpiled materials on the well associated with the Jenny Lind Road construction work. Duplicate samples were taken at a frequency of one duplicate sample per 10 groundwater monitoring samples. Duplicate samples were collected from ITMW-1, ITMW-5, MW-57, IW-73, MW-87, MW-91 and MW-182.

Because monitoring wells contain dedicated or new tubing, the only equipment transferred and used from well to well is the water level meter used to monitor well water levels during purging and stabilization prior to sampling and tube weights. Equipment rinsate blanks were collected after each of the seven water level meters used during the monitoring event were decontaminated to evaluate field decontamination procedures. Equipment rinsate blanks were

collected by pouring ASTM Type II deionized water over the decontaminated water level meter probe and tape into the appropriate sample containers. The rinsate blanks were collected after decontamination procedures at ITMW-5 (EB-03-201611 at 11:05), MW-191 (EB-02-201611 at 17:00), ITMW-9 (EB-06-2010611 at 17:25), ITMW-21 (EB-05-201611 at 16:32) and MW-93 (EB-01-201611 at 16:20). The preservation and analysis of the equipment rinsate blanks was identical to those of the associated environmental samples.

Sample containers were labeled and packed on ice in insulated coolers before being shipped under chain of custody via overnight courier or FedEx to Pace Analytical Services in Lenexa, Kansas (VOC and MNA parameters), via FedEx to Microseeps in Pittsburg, Pennsylvania, and via FedEx to Microbial Insights in Knoxville, Tennessee (Microbial parameters). Chain-of-custody procedures were followed from the point of sample collection through completion of analysis. The laboratories used infrared thermometers to take sample temperatures upon sample receipt in accordance with USEPA *Manual for the Certification of Laboratories Analyzing Drinking Water, Fifth Edition.*

3.3 Other Site Monitoring Activities

In accordance with the RGWMP, groundwater monitoring was performed for shallow monitoring wells in the north plume consisting of MW-174 through MW-179. These wells are screened to monitor shallow perched water and this data is used to assist in evaluating the potential for vapor intrusion from groundwater. Due to slow recovery rates, low-flow sampling techniques were not used at MW-178, therefore, the well was purged dry once, allowed to recover prior to collection of the sample within 24 hours of purging dry. A sample was unable to be collected from MW-179 due to very slow recovery rates and insufficient water volume for sampling after purging. See Section 4.2.3 Groundwater Data Quality Assessment for additional information.

The data from these shallow wells is presented in Attachment B, *Annual 2016 Soil Vapor Monitoring and Vapor Intrusion Assessment Report*.

ITMW-9 and MW-58R were re-sampled on December 14, 2016, due to reported TCE concentrations that did not correlate with historic data from these two specific locations and seemed to be suspect results. ITWM-9 was installed in 1990 and has been monitored more than 40 times with concentrations ranging from 7 µg/L to 230 µg/L; however, the laboratory results for the sample collected on November 8, 2016, indicated a TCE concentration of 2,550 µg/L. ITMW-9 was re-sampled and the results were 193 µg/L and this data is more consistent with the historic data from this well and is likely more reliable. Table 7 includes the results for both monitoring events, but the results from the December monitoring event are included in the data analysis in this report (i.e. the November 2016 data from ITMW-9 is excluded from the analysis presented in this report).

MW-58R was installed in 2004 and has been monitored 27 times with concentrations ranging from 265 µg/L to 809 µg/L; however, the laboratory results for the sample collected on November 8, 2016, indicated a TCE concentration below detection limits. MW-58R was re-sampled and the results were 265 µg/L and this data is more indicative of the historic data from this well. Table 7 includes the results for both monitoring events, but the results from the

December monitoring event are included in the data analysis in this report (i.e. the November 2016 data from MW-58R is excluded from the analysis presented in this report).

4 Annual Monitoring Event Results

The following sections present a discussion of the hydrogeology, analytical methods, the results of the laboratory analyses and an assessment of data quality and usability.

4.1 Hydrogeology

Gradient

Water levels from 107 wells at the Site were collected during the Annual event (Table 3) as discussed in Section 3.1. These wells were monitored during this event to provide current potentiometric information regarding groundwater flow direction at the Site.

The static water level measured in the wells ranged from 1.95 feet below top of the well casing (btwc) in the northeast (MW-175) to 25.61 feet btwc to the southwest (MW-189) during the monitoring event. Figure 1A shows the contours of the groundwater elevations based on the monitoring well static water level measurements completed on November 7, 2016. Based on the current potentiometric maps, the hydraulic gradient, as an indication of the likely direction of groundwater flow, is generally consistent with historical conditions. The groundwater gradient divide (hydraulic divide) trends west to east north of the facility building. In the vicinity of the hydraulic divide (north of the facility building), the hydraulic gradient is near zero. North of Jacobs Avenue the hydraulic gradient is directed to the north/northeast. South of the hydraulic divide and beneath the southern portion of the facility building, the hydraulic gradient is directed to the south, southeast then begins to trend to the southwest along the south boundary of the property.

The installation of eight additional (sentinel) wells to the south in September 2015 has refined the understanding of the southern flow regime (Ramboll Environ, 2015). The fourth round of groundwater data collected since installation of the sentinel wells continues to indicate a potential second hydraulic gradient divide beneath the facility, the axis of which trends from northwest to southeast. The gradient(s) steepen to the east, northeast east of the former manufacturing building and southwest beyond the extent of the former manufacturing building.

A linear interpolation of the gradient between four groups of wells was completed in order to assess the groundwater flow direction and gradients as follows:

- South plume southeast flow direction from MW-25 to MW-192 results in a gradient of 0.001 feet/foot;
- South plume southwest flow direction from MW-182 to MW-186 results in a gradient of 0.011 feet/foot;
- South plume southwest flow direction from ITMW-7 to MW-186 results in a gradient of 0.007 feet/foot;
- Northeast plume northeast flow direction from MW-87 to MW-183 results in a gradient of 0.014 feet/foot; and

- North plume northeast flow direction from MW-56R to MW-61R results in a gradient of 0.018 feet/foot.

Although the gradient remains relatively flat beneath the building (i.e. 0.001 feet/foot), the gradient steepens somewhat towards the southwest at the southwest corner of the building and towards the northeast. The gradient increases from 0.007 feet/foot to 0.011 feet/foot towards the southwest based upon the November 2016 water level measurements. The northeast gradient increases from 0.007 feet/foot to 0.018 feet/foot towards the northeast based upon the November 2016 water level measurements.

Shallow Monitoring Wells

Groundwater elevations from shallow groundwater wells (MW-174 through MW-177) located along the north side of Jacobs Avenue and MW-178 (located immediately south of Ingersoll Avenue) were used to evaluate shallow horizontal gradient. Static water elevations along Jacobs Avenue decrease from west to east; from a high of 465.19 feet at MW-177 to a low of 459.77 feet at MW-174. The calculated shallow groundwater gradient west to east based on these two wells is 0.007 feet/foot. Static water elevations in the nearby deeper groundwater wells also generally decrease from west (MW-70, 462.70 feet) to east (MW-63R, 460.05 feet) with a resulting gradient of 0.003 feet/foot. The highest shallow groundwater elevations were measured in MW-178 and adjacent shallow well MW-180 (470.38 feet and 469.60 feet, respectively). These results suggest that the shallow groundwater horizontal flow gradient generally mimics the deeper groundwater flow gradient to the east/northeast based on the number and location of shallow groundwater monitoring wells available.

Groundwater elevations from shallow groundwater wells MW-174 through MW-178 were also compared to groundwater elevations from nearby deeper monitoring wells to evaluate vertical gradient. MW-175 is located approximately at the midpoint between deeper groundwater monitoring wells MW-46R and MW-56R allowing the comparison of groundwater elevations at MW-175 to the average of the groundwater elevations at MW-46R and MW-56R. The vertical gradients are summarized in Table 5. Based on this evaluation observations are as follows:

- Downward vertical gradient (-0.46 feet/foot) at the south western well grouping MW-178/MW-83;
- Downward gradient (-0.24 feet/foot) at MW-177/MW-70;
- Slight upward gradient (0.01 feet/foot) at MW-176/MW-46R;
- Downward gradient (-0.32 feet/foot) at MW-175/MW-46R and MW-56R; and
- Upward gradient (0.05 feet/foot) at the eastern most well pairing, MW-174/MW-63.

A comparison of gradients based upon the May and November 2016 water level measurements is shown on Figure 1B. The difference in vertical gradients was generally consistent between the May and November 2016 with the minor exception of the increased downward gradient at MW-175/MW-46R and MW-56R (-0.32 feet/foot). Precipitation was approximately 7 inches below normal from June 2016 through October 2016 (observed precipitation of 11.63 inches

versus normal precipitation of 18.59 inches for the same timeframe[1]). The potentiometric surface declined in the shallow wells 0.24 feet (MW-174) to 3.81 feet (MW-177) and from 0.74 (MW-63R) to 2.53 feet (MW-46R/56R) in the deeper wells. The relative similarity in changes between the shallow and deeper wells reflects at least some connectivity between the respective saturated zones.

4.2 Groundwater Analytical Results

All VOC analytical data from all wells were subjected to data validation in accordance with the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Review (August 2014). The laboratory analytical reports for the samples are presented in Appendix C. Summaries of analytical results (i.e. detected compounds) for samples collected during the Annual event are presented in Table 6. This table includes data qualifiers that may have been assigned from validation. A discussion of the field and laboratory analytical results for this event is presented below.

4.2.1 VOC Results

This section presents an evaluation of the VOC data that were collected from the Site during the Annual event. TCE results for the Annual event are presented on Figures 2A and 2B. Similar to the groundwater monitoring well classifications presented in the RADD, the groundwater monitoring wells included in the RGWMP have been organized into groups consisting of the plume "boundary" wells, offsite wells and onsite wells. Table 2 summarizes the wells in each group.

Plume Boundary Wells

Thirty-three monitoring wells are identified as plume boundary wells (Table 2) at the Site. VOC concentrations were detected above the RADD RALs (Table 1) in four of the 33 samples collected from the plume boundary wells. Tabulated VOC concentrations measured in these wells during the Annual event are presented in Table 6.

Notable results from the first quarter sampling event include:

- MW-24: Bromomethane concentration of 8.3 µg/L (vs. RAL of 7 µg/L);
- MW-186: TCE concentration of 5.2 µg/L (vs. RAL of 5 µg/L);
- MW-189: TCE concentration of 10.2 µg/L (vs. RAL of 5 µg/L); and
- MW-194: TCE concentration of 12.7 µg/L (vs. RAL of 5 µg/L).

The TCE concentrations at MW-189 and MW-194 consisted of the second monitoring event at or near the plume boundaries where the RAL was exceeded. An Action Plan is provided in Appendix F.

[1] (http://www.usclimatedata.com/climate/fort-smith/arkansas/united-states/usar0197/2016/10)

Consistent with historical analytical results for the Site, all other plume boundary well VOC results were reported as non-detect or at concentrations less than RALs.

Offsite Wells

Fifteen monitoring wells are identified as offsite wells (Table 2). The offsite wells include those installed at offsite properties to the north and northeast of the Whirlpool northern property boundary that are not otherwise identified as plume boundary wells. Tabulated VOC concentrations measured in the 15 offsite monitoring wells during the 2016 first quarter event are presented in Table 6.

During the Annual event, the highest concentration of TCE detected in groundwater samples from the offsite wells was 679 µg/L collected from MW-56R. This is a decrease from the previous highest concentration documented at this location (734 µg/L) in May 2016. MW-46R is located up-gradient of MW-56R and TCE concentration at MW-46R was 411 µg/L during the Annual event indicating the up-gradient concentrations are lower than the maximum concentrations detected at MW-56R.

Onsite Wells

Twenty-two monitoring wells are identified as onsite wells (Table 2). Onsite wells include certain wells north of Ingersoll Avenue and some wells south of Ingersoll Avenue which are north of the Whirlpool northern property fence line, but are still located on property owned by Whirlpool. The remaining onsite wells are located along the perimeter of the former Whirlpool manufacturing facility, within the source area, or south of the source area which includes wells immediately adjacent to the Whirlpool manufacturing building. Tabulated VOC concentrations measured in onsite wells during the Annual event are presented in Table 6.

VOCs were detected above the RADD RALs in 19 of the 22 groundwater samples collected from onsite wells. VOCs detected at concentrations exceeding the respective RALs consist of:

- TCE in most onsite wells (all except for MW-83, MW-84 and MW-178);
- Bromomethane in two wells;
- 1,1-DCA in two wells;
- 1,1-dichloroethene (1,1-DCE) in five wells;
- cis-1,2-dichloroethene (cis-1,2-DCE) in five wells;
- Methylene chloride in two wells;
- 1,1,2,2-tetrachloroethane (1,1,2,2-TCA) in three wells;
- Tetrachloroethene (PCE) in four wells; and
- VC in four wells.

During the Annual event, the maximum onsite TCE concentration measured was 75,100 µg/L at MW-86. MW-86 is located within the former western portion of the linear drainage feature at the source area. The current TCE concentration at MW-86 (75,100 µg/L) is approximately 86% lower than the highest TCE concentration detected in MW-86) (533,000 µg/L in May 2014). The TCE concentration has varied since remedial activities were performed in 2014 consisting of soil removal within the former linear drainage feature and ISCO efforts within this area. The

continuing decrease of TCE concentrations in the source area further documents the successful remedial efforts performed at the Site (see Section 6 for further discussion of ISCO Effectiveness and the *Two Year Technical Review Report* dated January 2016 for further discussion of remedial efforts).

Figure 3 depicts trends in TCE concentration at onsite wells ITMW-17, ITMW-19 and MW-25 over time on a logarithmic scale. The trend for TCE concentrations are generally decreasing to stable at these three wells (groundwater monitoring at ITMW-17 is not included in the Revised Groundwater Monitoring Plan, but the TCE concentration trend through May 2016 is depicted on the figure).

Northeast Corner Wells

Nine wells were monitored during the November 2016 Annual event to delineate TCE impacts at or near the northeast corner of the Site. MW-96, MW-97, MW-98, MW-99 and MW-184 are plume boundary wells, MW-183 is an offsite well and MW-87, MW89 and MW-91 are onsite wells. Analytical results from these wells are included in Table 6.

During this event, MW-89 exhibited a TCE concentration of 13.4 µg/L which is comparable with historical concentrations, MW-87 exhibited a TCE concentration of 948 µg/L which is higher than the first or second quarter monitoring event results and MW-91 exhibited a TCE concentration of 599 µg/L which is also higher than the first or second quarter monitoring event results. TCE concentrations in MW-96 through MW-98 on the Boys and Girls Club property continue to be below detection limits. MW-99 could not be accessed due to road construction activities currently ongoing. MW-183 and MW-184 were installed in late September 2015. The TCE concentration at MW-183 during the Annual event was marginally above the RAL at 5.3 µg/L compared to the TCE concentrations measured during the first and second quarter 2016 monitoring events of 2.7 and 2.8 µg/L respectively[2]. The TCE concentration at MW-184 continues to be non-detect.

4.2.2 Monitored Natural Attenuation Results

Seventy monitoring wells were sampled for chlorinated VOCs and 14 wells were monitored for laboratory and field natural attenuation parameters in accordance with the RGWMP. This section presents the natural attenuation data collected from the Site during the 2016 Annual sampling event. Tabulated results are presented in Table 6.

The USEPA documents *Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Groundwater* (USEPA, 1998) and *An Approach for Evaluating the Progress of Natural Attenuation in Groundwater* (USEPA, 2011) provides a framework for presenting the lines of evidence that natural attenuation of chlorinated solvents is occurring. The three recognized lines of evidence include:

- Historical groundwater and/or soil chemistry data that clearly demonstrate a trend of

[2] Whirlpool will continue to meet with the Boys and Girls Club regarding the northeast wells.

decreasing contaminant mass and/or concentration over time at appropriate monitoring points (USEPA, 1998);

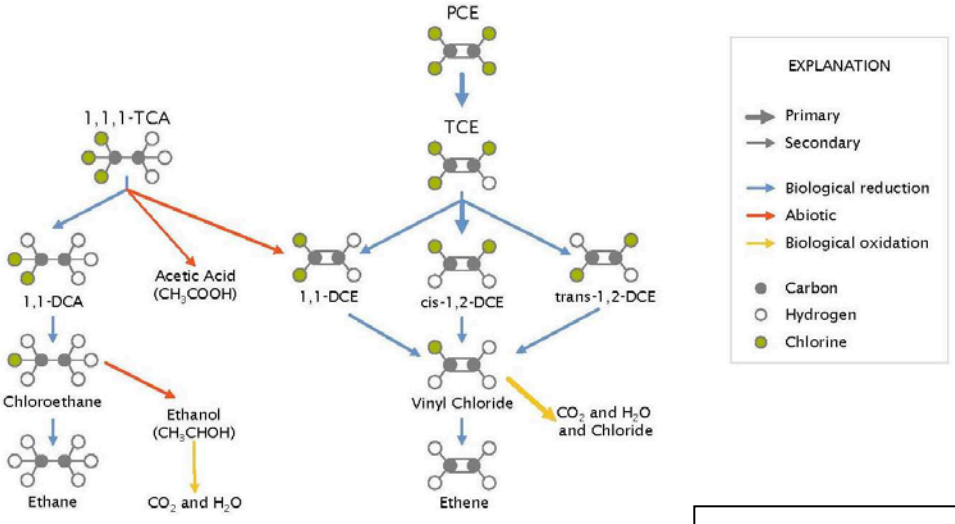
- Hydrogeologic and geochemical data that can be used to establish indirectly the type(s) of natural attenuation processes occurring at the site and the rate at which the processes will reduce contaminant concentrations to the cleanup goal (USEPA, 1998); and
- Data from field or microcosm studies which directly demonstrate the occurrence of a specific natural attenuation process at the site and its capacity to degrade the contaminants of concern (USEPA, 1998).

The MNA assessment evaluates predominant electron acceptors, the variability of these electron acceptors, major nutrients, general groundwater quality, key microbial population and enzyme activities and dissolved gasses. The assessment uses this data to determine the types of organisms that will be able to effectively flourish in the aquifer, how the geochemistry and chemistry of the aquifer impacts MNA processes, how the indigenous microbial population is being supported, the availability of microbial populations and the presence of reductive dechlorination occurring in the aquifer.

4.2.2.1 Chemical Lines of Evidence

The occurrence and progress of natural attention in reducing COC concentrations is provided by evaluating the presence and effectiveness of the transformation pathways for chlorinated ethenes. Chlorinated ethenes are degraded by both biological and abiotic (non-biological) mechanisms. The graphic below shows the biological (anaerobic) and abiotic transformation pathways for chlorinated ethenes. This graphic does not include other chemically induced aerobic (e.g. ISCO) and anaerobic [e.g. zero valent iron (ZVI)] pathways that can promote degradation of chlorinated compounds.

Abiotic and Biotic Pathways for Chlorinated Ethenes and Ethanes



Source: Vogel et al., 1987.

Tables 4 and 6 present a summary of field parameters and analytical results for VOCs in groundwater, respectively. These data provide lines of evidence that natural attenuation of TCE is continuing to occur via biological mechanisms in both onsite and offsite groundwater. Groundwater sample results continue to show elevated levels of cis-1,2-DCE in Site monitoring wells. More than 40% of the wells showed detectable levels of cis-1,2-DCE while approximately 16% of the wells displayed the presence of vinyl chloride. In addition, 11 of the 14 wells monitored for CH_4, ethane and ethene showed detectable levels of ethene, indicating that complete reductive dechlorination is occurring in various locations of the northern and southern plumes. Table 6 also includes the laboratory MNA analytical results and the microbial data.

Sampling MNA parameters at locations where TCE is below 5 µg/L does not provide valuable data when evaluating MNA processes. When TCE concentrations are below 5 µg/L the remedial action level [maximum contaminant level (MCL)] has already been achieved and due to the low concentration further significant reduction in contaminants is not expected within a relatively brief timeframe. Also in areas where VOC concentrations are at very low levels, it is unlikely to observe microbial populations, genes and other indicator parameters necessary to demonstrate biodegradation of VOCs.

4.2.2.2 Geochemical Lines of Evidence

The occurrence and progress of natural attenuation in reducing COC concentrations is provided by evaluating geochemical parameters along with the results of conventional chemical and microbial analyses. The detection of cis-1,2-DCE in groundwater samples from this Site is evidence that conditions likely are favorable for active reductive dechlorination processes. Key parameters used to assess the progress of reductive dechlorination include: temperature, concentration or presence of electron acceptors (DO, nitrate, iron, manganese and sulfate), presence and amount of nutrients (e.g. concentrations of nitrogen and phosphorus), bioavailable carbon source to sustain microbial population, concentrations of COCs and pH.

Tables 4 and 6 present the groundwater field parameters and MNA analytical and microbial results for the Annual event. A summary of the key items on Tables 4 and 6 are discussed below:

- The groundwater during this sampling event was generally considered to be under bulk anaerobic conditions, with 50 of the 70 wells sampled showing DO concentrations less than 1 mg/L (see Table 4). In addition, four wells displayed microaerophilic conditions with DO less than 2.0 mg/L. DO levels were relatively low in both the northern and southern plumes. Elevated DO levels were observed in some areas that had been exposed to ISCO injections, similar to previous sampling rounds.
- The ORP of the groundwater samples ranged from a low of -170.5 mV in MW-61R to a high of 514.1 mV in MW-24, which was under the influence of the ISCO injections. In general, the ORP levels were less than 500 mV in most of the Site monitoring wells, which indicate that the groundwater is under manganese to iron reducing conditions.
- The pH of the groundwater ranged from a low of 4.1 in MW-24 to a high of 11.75 in MW-190, which is consistent with the prior sampling event. In general, pH levels are in the

range of 5 to 7; however, the pH is affected by ISCO injections.

- The temperature of the groundwater ranged from about 17.78° to 26.02° Celsius (C), with the majority of the temperatures around 19-23° C, which is a range that would support microbial growth in groundwater.
- The major competing electron acceptors nitrate, manganese, iron and sulfate were evaluated in Site groundwater samples (Table 6). Nitrate levels were generally present at less than 1 mg/L in most of the monitoring wells. However, MW-89 showed elevated levels of nitrate (108 mg/L), which is consistent with the previous sampling events.

  Total iron was present in groundwater samples at 10 mg/L or less, with the exception of MW-61R. The elevated total iron concentration observed in MW-61R (11.6 mg/L) was likely due to the ISCR injections in the area of this well. The total iron results are consistent with the low levels of ferrous iron measured in groundwater (<4 mg/L). MW-58R and MW-61R showed total iron concentrations greater than 10 mg/L and ferrous iron concentrations at 3.0 mg/L or higher, indicating iron reducing conditions are present in the area around these wells. Although elevated levels of iron were observed in the aforementioned wells, it does not appear to be significantly inhibiting reductive dechlorination, as demonstrated by the presence of cis-1,2-DCE and VC in the groundwater.

  Sulfate concentrations were generally less than 1,000 mg/L with the exception of MW-25 and MW-86. The wells that displayed significantly higher concentrations of sulfate were likely impacted by the ISCO injections.
- Dissolved gasses CH_4, ethane and ethene were present in low levels at the site. Ethene levels remained similar to the first semi-annual sampling event, with a slightly elevated ethene level observed in MW-38. The higher ethene level in MW-38 corresponded to the elevated levels of DHC in this well along with the presence of the BAV1 vinyl chloride reductase gene, which is similar to the previous sampling events.
- TOC levels ranged from less than 1 mg/L to a high of 29.4 mg/L in TMW-11, which was impacted by the ISCR amendments. Similar to the previous quarters more than 70% of the groundwater samples displayed TOC levels less than 2 mg/L. CH_4, ethane and ethene were detected at low concentrations or were non-detect in groundwater samples throughout the Site (Table 6). These results are likely due to low levels of TOC present in the groundwater, which may be inhibiting bacterial growth.

4.2.2.3 Microbial Lines of Evidence

Table 6 provides the microbial results for the groundwater samples which were evaluated using standard groundwater analysis protocols. Table 6 includes the results for the genus DHC, the functional genes, tceA reductase (tceA), BAV1 VC reductase (BVC) and VC reductase (VCR). Similar to the previous sampling results, the DHC microbial population was detected at elevated levels in MW-38 (1,130 cells/mL); a location that is relatively close to the source area. Likewise, the BVC gene was also detected at elevated levels (450 cells/mL) in MW-38, which indicates the potential for complete reductive dechlorination in this area. In addition to MW-38, TMW-10 and TMW-11 showed elevated levels of DHC (158 and 715 cells/mL, respectively). These

results are not surprising since ISCR was conducted in the area of these wells. DHC was detected in more than 60% of the wells monitored for microbial parameters; although the level or concentration of DHC is relatively low in the majority of the wells tested.

The chemical, geochemical and microbial data from the 2016 Annual event are similar to the previous monitoring events in 2014, 2015 and 2016. The VOC results demonstrate that reductive dechlorination is occurring in multiple locations within the plume.

Higher levels of TOC and ethene have been consistently observed in MW-38, which indicates that there is bioavailable organic carbon in this area that is supporting the indigenous microbial population of DHC and contributing to complete reductive dechlorination of VOCs in groundwater.

4.2.3 Groundwater Data Quality Assessment

All field and analytical data were reviewed by Ramboll Environ. Validation findings are summarized in the following. The detailed validation report is included in Appendix D.

4.2.3.1 Field Data

Field data was collected and validated according to the RADD, work plan and associated standard operating procedures (SOPs) and USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Review (August, 2014). The field data and documentation were evaluated against the following criteria, as appropriate:

Samples were collected at the specified locations identified in the RGWMP approved by ADEQ in September 2016.

- Field instrumentation calibration and quality assurance/quality control (QA/QC) checks on equipment were conducted on a daily basis, prior to field work; and
- Sample documentation protocol and chain-of-custody protocols were followed per Ramboll Environ Field Procedures.

4.2.3.2 Laboratory Analytical Data

All VOC (SW846 5030B/8260B) analytical results for the plume boundary, onsite and offsite wells received data validation by a Ramboll Environ Project Chemist. During the data validation process, data validation qualifiers were assigned to the results per USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Review (August, 2014), as necessary, to indicate potential limitation on use of the data. In addition, data qualifier codes were added to the results to indicate the reason(s) for qualification and the associated bias direction, if discernible.

5 Plume Stability

This section includes discussion of trends for individual wells, trends for groups of wells, plume boundaries and concentration versus time plots. The discussion and assessment of the plume area are based upon a macro-analysis of the entire plume versus a single well analysis to categorize the plume stability. Individual wells will inherently exhibit variability and fluctuations that will influence perception, inference or modeling of plume boundaries at the time of any given monitoring event. The macro-analysis of the entire data set minimizes the over weighting of any particular well or data set from a well. Monitoring wells installed after the 2013 RADD was issued by ADEQ are only included in this analysis if they have been sampled a sufficient number of times to establish temporal trends (statistical trend analysis typically requires data from at least four sampling events).

Table 7 presents a historical summary of TCE and degradation products, cis-1,2-DCE and VC, concentrations in groundwater samples. These values are used for the analysis of trends described in the remainder of this section.

5.1 Lines of Evidence

Several analytical tools or “lines of evidence” were used to evaluate plume stability conditions including:

- **Statistical Methods**. Mann-Kendall nonparametric test (Gilbert, 1987; USEPA, 2000) to calculate the temporal trend in individual well analyte concentrations over time.
- **Isoconcentration Maps.** Qualitative method to evaluate temporal trends by comparing representations of plume concentration and extent for certain periods over the duration of monitoring.
- **Time vs. Concentration Plots.** Qualitative method to evaluate temporal trends in constituent concentration for individual wells and for representative concentration of overall plume (mean). The plots also include exponential regression lines to aid the analysis of temporal trends.

5.1.1 Statistical Analysis of Temporal Trends

The Mann-Kendall test (Gilbert, 1987) is a non-parametric test for linear trend, based on the idea that a lack of trend would be represented by a time series plot fluctuating randomly about a constant mean level, with no visually apparent upward or downward pattern. Because Mann-Kendall is a non-parametric test, it is not dependent upon the magnitude of data, the distribution of the data (does not have to have a normal distribution), missing data from a particular sampling event, or irregularly spaced monitoring events. Mann-Kendall assesses whether a time-ordered data set exhibits an increasing or decreasing trend, at a predetermined level of significance.

The Mann-Kendall statistic is computed by looking at all possible pairs of measurements in the data set and scoring each pair as follows:

- An earlier value lower in magnitude than a later one is assigned a value of 1;
- An earlier value higher in magnitude than a later sample is assigned a value of –1; and
- Two identical values are assigned 0.

The scores from all of the pairs are added together to get the Mann-Kendall statistic (S), a positive value of S indicates that a majority of the differences between earlier and later measurements are positive, which suggests an increasing trend over time. Conversely, a negative value for S implies that a majority of the differences between earlier and later values are negative, indicating a decreasing trend. A value near zero indicates a roughly equal number of positive and negative results. This indicates the values have randomly fluctuated around a constant mean with no apparent trend. If the Mann-Kendall test indicates that there is not a statistically significant trend a second test, coefficient of variation (COV), is performed to determine if the trend is stable (COV is less than 1, little variation above and below the mean value) or if no trend exists (COV is greater than 1, high variation above and below the mean value).

The applicable outcomes of the temporal trend analysis are as follows:

- **Increasing**. Statistically significant increasing trend for concentrations (>90% confidence);
- **Stable.** No statistically significant trend for concentrations along with low variability for results (coefficient of variance <1);
- **No Trend**. No statistically significant trend for concentrations along with high variability for results (coefficient of variance >1);
- **Decreasing**. Statistically significant decreasing trend for concentrations (>90% confidence);
- **Practical Quantitation Limit (<PQL).** All sample results have a "J" qualifier (estimated result greater than the method detection limit but less than the reporting limit) or a mixture of non-detects and results with "J" qualifiers; and
- **Not Detected (ND).** Constituent has not been detected at the well during the time period analyzed.

The trend analysis performed for groundwater concentrations from 2009 (when installation of the last of the current wells used for monitoring in accordance with the RADD was complete) through the 2016 Annual event are summarized in Tables 8 and 9. Only monitoring wells included in the RGWMP are included in the temporal trend analysis[3]. The following is the list of wells in each category (this list is only presented for evaluation of plume stability):

[3] Trend analysis was performed for the network of monitoring wells in the ADEQ approved RGWMP. Trend analysis utilizing old data from monitoring wells not in the ADEQ approved RGWMP is not appropriate. Monitoring wells not currently monitored as part of the ADEQ approved RGWMP still exist and could be utilized in the future, if warranted.

- **Northern Plume Wells (23 wells)**. MW-24, MW-27, MW-28, MW-39/39R, MW-40/40R, MW-46R, MW-50, MW-55/55R, MW-56/56R, MW-57/57R, MW-58/58R, MW-60, MW-61/MW61R, MW-62/62R, MW-63/63R, MW-68, RW-69, IW-73, IW-77, IW-78, MW-82, MW-83 and MW-84.
- **Northeast Corner Wells (nine wells)**. MW-87, MW-89, MW-91, MW-96, MW-97, MW-98, MW-99, MW-183 and MW-184.
- **Southern Plume Wells (29 wells)**. ITMW-1, ITMW-2, ITMW-5, ITMW-7, ITMW-9, ITMW-10, ITMW-16, ITMW-18, ITMW-19, ITMW-20, ITMW-21, MW-22, MW-24, MW-25, MW-26, MW-29, MW-38, MW-86, MW-93, MW-95, MW-182, MW-185, MW-186, MW-187, MW-188, MW-189, MW-190, MW-191 and MW-192.
- **Source Area Wells (seven wells)**. ITMW-18, ITMW-19, MW-25, MW-38, MW-86, MW-93 and MW-95.

Contaminant concentration trends as established during the first quarter event are summarized below:

- **Northern Plume Wells (23 wells).** The Mann-Kendall trend analysis utilizes data from all wells associated with the 2016 annual groundwater monitoring event for the northern plume (Table 8). As described in more detail below, our determination that a majority of the wells exhibit little or no TCE or a decreasing or stable TCE concentration trend is based on the fact that 83% (19 of 23 wells) of these wells exhibit either little or no TCE or a decreasing or stable TCE concentration trend.

  The trend analysis for the 23 wells associated with monitoring the northern plume indicates the following:

  - Three wells exhibit a stable trend for TCE concentrations.
  - Nine wells exhibit a decreasing trend for TCE concentrations.
  - Four wells exhibit no trend regarding TCE concentrations according to the statistical test. TCE concentrations in three out of four of these wells consisting of MW-27, MW-39/39R and MW-68, have been non-detect or TCE has been detected at very low concentrations (less than an estimated concentration of 0.84 µg/L since October 2012). MW-82 exhibits no trend and TCE concentrations have ranged from approximately 4 µg/L to 36 µg/L during the last year of monitoring.
  - Four wells exhibit TCE concentrations below detection limits or below reporting limits.
  - Three wells exhibit an increasing trend for TCE concentrations (each of which is discussed below).

  TCE concentrations in seven of the 23 northern plume wells (30%) have been non-detect or less than an estimated concentration of 0.84 µg/L since October 2012 and 12 of the 23 wells (52%) have exhibited decreasing or stable trends; therefore, 19 of the 23

northern plume wells (83%) exhibit either little or no TCE or a decreasing or stable TCE concentration trend. We believe that this supports our plume stability conclusions.

As noted, TCE concentration trends are increasing in three of 23 (13%) of the wells (MW-56R, MW-57R and MW-61R). Further, of the three wells located in the northern plume with increasing TCE concentration trends:

- One well (MW-61R) had a concentration during the 2016 annual event that was within low historical ranges of detected values. The TCE concentration of 2.3 µg/L at MW-61R is the second lowest detected concentration since monitoring began. The lowest detected concentration at MW-61R was in March 2011 with an estimated concentration of 1.8 µg/L. The current concentration represents a substantial decrease in TCE concentration over the last year as a result of the ISCR effort within this area. Further monitoring is necessary to confirm continued downward trends in TCE concentrations as a result of ISCR.
- The TCE concentration at MW-56R of 679 µg/L is the second highest historical concentration for this well but lower than the previous May 2016 historical high concentration of 734 µg/L; although, other seasonal increases in TCE concentrations are noted in this well during fall sampling events (e.g. TCE concentrations during previous select fall monitoring events were 470 µg/L in October 2012, 590 µg/L in October 2013 and 408 µg/L in October 2015). TCE concentrations and trends will continue to be monitored at this well.
- The TCE concentration at MW-57R of 453 µg/L is a historical high concentration; although TCE concentrations at MW-57R have remained relatively stable during the last 15 months with previous quarterly TCE concentrations of 409 µg/L, 400 µg/L and 422 µg/L and 425 in July 2015, October 2015, January 2016 and May 2016, respectively. TCE concentrations and trends will continue to be monitored at this well.

- **Northeast Corner Wells (nine wells).** Three wells (MW-87, MW-89 and MW-91) located on Whirlpool property in the area of the northeast corner plume and six wells (MW-96 through MW-99, MW-183 and MW-184) located on Boys and Girls Club property further to the northeast have been sampled at least four times between June 2014 and November 2016.

  The overall TCE concentration trends are increasing in MW-87 and MW-91 with concentrations ranging from 564 µg/L to 948 µg/L and 234 µg/L to 599 µg/L, respectively. The current concentration of 13.4 µg/L at MW-89, noted as a stable well, is less than the high value of 19.5 µg/L in June 2014. TCE concentrations and trends will continue to be monitored at this well.

  TCE concentrations in MW-96 through MW-99 and MW-184 on the Boys and Girls Club property continue to be below detection limits (i.e. less than 0.17 µg/L) (except for estimated TCE concentrations of 0.21 µg/L during the January 2016 event at MW-99 and 0.59 µg/L during the January 2015 event at MW-96). The TCE concentration trend is increasing at MW-183 with concentrations ranging from 2.0 µg/L in October 2015 to 5.3

µg/L in November 2016 (first exceedance of 5 µg/L). TCE concentrations and trends will continue to be monitored at this well.

- **Southern Plume Wells (29 wells).** As described in more detail below, our determination that a majority of the wells exhibit little or no TCE or a decreasing or stable TCE concentration trend is based on the fact that 25 of 29 (86%) of the southern wells exhibit either little or no TCE or a decreasing or stable TCE concentration trend. The trend analysis for the 29 wells associated with monitoring the southern plume indicates the following:
    - Six wells exhibit a stable trend for TCE concentrations;
    - Nine wells exhibit a decreasing trend for TCE concentrations;
    - Two wells, consisting of ITMW-20 and MW-26, exhibit no trend regarding TCE concentrations; although TCE concentrations at these wells have been non-detect or less than 5 µg/L since October 2011;
    - Eight wells exhibit TCE concentrations below detection limits or below reporting limits; and
    - Four wells (ITMW-10 located south of the former manufacturing building, MW-38 located immediately north of Area 1 and MW-186 and MW-189 located in the southwest portion of the site) exhibit increasing TCE concentration trends (see further discussion below).

  As noted, TCE concentration trends are statistically increasing in four of the 29 (14%) southern plume wells (ITMW-10, MW-38, MW-186 and MW-189) and of these wells the following observations can be made:
    - MW-38 is a source area well and is discussed further below.
    - The TCE concentration in ITMW-10 is currently 113 µg/L and is significantly lower than the previous May 2016 TCE concentration of 743 µg/L and January 2016 concentration of 761 µg/L. TCE concentrations and trends will continue to be monitored at this well.
    - The TCE concentration of 5.2 µg/L in MW-186 marginally exceeding the historical maximum concentration of 4.0 µg/L. TCE concentrations and trends will continue to be monitored at this well.
    - The TCE concentration of 10.2 µg/L in MW-189 exceeded the historical maximum concentration of 5.5 µg/L. TCE concentrations in this well has increased since installation in September 2015. TCE concentrations and trends will continue to be monitored at this well.
- **Source Area Wells (seven wells).** The source area wells showed predominantly decreasing or stable concentration trends for TCE (four wells decreasing and two wells stable) and for cis-1,2-DCE (three wells decreasing and two wells stable). Only one source area well, MW-38, has continued to demonstrate an increasing concentration trend for TCE and cis-1,2-DCE based upon the Mann-Kendall test, however TCE concentrations have been continuing to decrease at MW-38 since October 2014 and the

current TCE concentration of 2,860 µg/L is 58% less than the October 2014 concentration. During the last 19 months, the quarterly TCE concentrations in MW-38 have been 3,420 µg/L, 2,740 µg/L, 3,680 µg/L 3,040 µg/L and 2,860 µg/L; therefore, these results suggest the TCE concentrations in MW-38 are beginning to stabilize.

5.1.2 Isoconcentration Maps

Figures 2A and 2B show isoconcentration lines at the northern, northeastern and southern plumes for the 2016 Annual event. Minor, notable changes in the north and northeast plume boundaries on Figure 2A consist of:

- TCE concentration reductions at the south end of the north plume (generally on the Bost property) and further expansion of the separation of the north and south plumes;
- TCE concentration of 5.3 µg/L at MW-183 (first time the TCE concentration has exceeded 5 µg/L) causing the TCE isoconcentration line to slightly extend to include MW-183;
- TCE concentration of 2.3 µg/L at MW-61R restricting the TCE isoconcentration line from extending to MW-61R;
- TCE concentrations of 12.7 µg/L at MW-194 causing the TCE isoconcentration line to extend eastward at this location.

Notable changes in the south plume boundary on Figure 2B consist of:

- TCE concentration of 5.2 µg/L in MW-186 causing the TCE isoconcentration line to extend slightly further south and southwest toward the site boundary; and
- TCE concentration of 10.2 µg/L in MW-189 causing the TCE isoconcentration line to extend slightly further south near the south central site boundary.

5.1.3 Concentration vs. Time Plots

TCE and cis-1,2-DCE concentration versus time charts are also provided for pairs of wells located in the southern plume, source area and two located in the northern plume (Figures 4A and 4B and Figures 5A and 5B). As shown on Figure 4B, although TCE concentrations show an increasing trend in ITMW-10 (primarily during the previous ten most recent sampling events) the TCE concentration of 113 µg/L during this event is significantly lower than previous events. Concentrations of cis-1,2-DCE in ITMW-10 and in nearby ITMW-9 (Figure 4A) have been decreasing. The concentration of TCE at ITMW-9 shows a decreasing to stable trend. Figures 5A and 5B show concentration trends for ITMW-19 (Figure 5A) and MW-25 (Figure 5B) located in the source area; concentrations are generally decreasing with decreases of one to two orders of magnitude following the third ISCO injection event (October 2014) in the source area. Figure 6 shows TCE concentrations at MW-61/61R increasing above historical maximums but the January 2016, May 2016 and results from the Annual event are comparable to historical low concentrations.

5.2 Summary of Plume Stability

The overall groundwater conditions at the Site exhibit decreasing to stable characteristics in a predominant number of wells based upon statistical analysis of temporal concentration trends, decreasing average TCE concentrations in the southern plume and decreasing to stable average TCE concentrations in the northern plume. The aerial extent for the north and northeastern plumes remain predominantly within the bounds of the historical maximum plume extent; however, TCE concentrations of 12.7 µg/L in MW-194 and 5.3 µg/L in MW-183 during this event caused the TCE isoconcentration line for the north and northeast plumes, respectively, to extend eastward at these locations. Using the Mann-Kendall statistic test, temporal trend increases in TCE concentrations observed in MW-61R are within low historical ranges and continue to be reported at levels below or near the RAL.

TCE concentrations of 5.2 µg/L in MW-186 and 10.2 µg/L in MW-189 during this event caused the TCE isoconcentration line for the south plume to slightly extend further towards the south and southwest site boundaries.

The site-wide groundwater conditions can be categorized as three separate plumes with distinct characteristics (i.e. the southern plume, the northern plume and northeastern plume).

The southern plume is characterized by:

- A relatively flat south, southeast potentiometric gradient with a southwestern gradient in the southern section of the plume;
- Source area (Area 1) TCE concentrations greater than 10,000 µg/L;
- An aerial extent of approximately 1,270,000 square feet (ft^2) (predominately located under the footprint of the Whirlpool building); and
- A decreasing trend in average TCE concentrations.

The northern plume is characterized by:

- A north-northeast potentiometric gradient that is flat in the south portion of the north plume but steepens to north-northeast;
- TCE concentrations generally between 100 and 800 µg/L;
- An aerial extent of approximately 497,000 ft^2 located north of the Whirlpool property (containing the manufacturing building) and extending to the residential area to the north-northeast; and
- An overall decreasing trend in average TCE concentrations.

The northeast plume is characterized by:

- An east, northeast potentiometric gradient.
- TCE concentrations generally between 5 and 850 µg/L.
- An aerial extent of approximately 272,000 ft^2 located northeast of the Whirlpool building and extending to property owned by the Boys and Girls Club. Offsite groundwater TCE concentrations in monitoring wells are below the RALs except for the first time exceedance at MW-183.

5.3 TCE Mass Estimate

Estimated average minimum and maximum quantities of TCE in groundwater were calculated for the Site using the results of the Annual event. The distinction between the north and south groundwater plumes is identified based upon the consistent groundwater divide north of the Whirlpool manufacturing facility and south of Ingersoll Avenue and the reduction or elimination of TCE in groundwater near the hydraulic barrier. The quantity of TCE calculations are based on separating the northern and southern plumes at the hydraulic divide at the location of MW-24 (see Figures 2A and 2B). The quantity of TCE in the northeast plume is also included in the calculations.

The estimated quantities of TCE included calculation of the volume of groundwater based upon the distinct areas within the plumes (i.e. area of plume within the isoconcentration lines on Figures 2A and 2B of Attachment A), average saturated thickness and total porosity (i.e. area x average saturated thickness x porosity = volume of water). The volume of water and minimum and maximum TCE concentrations based upon the plume boundaries were used to calculate the mass of TCE within each section of the plume. The volume of TCE was then determined based upon the specific gravity of TCE. Parameters used in the calculation of TCE quantities are presented below. Calculations are presented in Appendix E.

Northern plume parameters:

- Plume area of approximately 497,000 ft^2 consisting of 346,000 ft^2 for the portion of the plume with TCE concentrations ranging from 5 µg/L to 100 µg/L; 151,000 ft^2 for the portion of the plume with TCE concentrations ranging from 100 µg/L to 1,000 µg/L; and no portion of the plume exhibits TCE concentrations greater than 1,000 µg/L;
- Average saturated thickness of 3.7 feet;
- Total porosity of 0.4; and
- TCE specific gravity of 1.465.

Southern plume parameters:

- Plume area of approximately 1,270,000 ft^2 consisting of approximately 610,000 ft^2 for the portion of the plume with TCE concentrations ranging from 5 µg/L to 100 µg/L; 448,000 ft^2 for the portion of the plume with TCE concentrations ranging from 100 µg/L to 1,000 µg/L; 184,000 ft^2 for the portion of the plume with TCE concentrations ranging from

1,000 µg/L to 10,000 µg/L; and 28,000 ft^2 for the portion of the plume with TCE concentrations greater than 10,000 µg/L, (the southern plume delineation has been refined to reflect additional data resulting from the installation of down-gradient well MW-182 and further down gradient sentinel wells);

- Average saturated thickness of 8.3 feet;
- Total porosity of 0.4; and
- TCE specific gravity of 1.465.

Northeastern plume parameters:

- Plume area of approximately 272,000 ft^2 consisting of almost 190,000 ft^2 for the portion of the plume with TCE concentrations ranging from 5 µg/L to 100 µg/L; and, 82,000 ft^2 for the portion of the plume with TCE concentrations ranging from 100 µg/L to 1,000 µg/L;
- Average saturated thickness of 4.4 feet;
- Total porosity of 0.4; and
- TCE specific gravity of 1.465.

Based on the plume information listed above, the following ranges of the quantities of TCE distributed throughout the respective plumes were calculated:

Plume Location	Calculated Minimum Volume	Calculated Maximum Volume
Northern Plume	Less than 1 gallon	2 gallons
Southern Plume	9 gallons	32 gallons
Northeastern Plume	Less than 1 gallon	1 gallon

Therefore the total average minimum and maximum quantities of TCE in groundwater associated with the Site are approximately 11 to 35 gallons of TCE.

As described in the *Response to ADEQ Comments on the Fourth Quarter 2015 Progress Report (April 2016)*, the combined estimated quantity of TCE currently adsorbed in unsaturated and saturated soil and the TCE dissolved in the three groundwater plumes is estimated to range from approximately 20 to 70 gallons based upon investigation and monitoring events at the Site. The combined estimated quantity of TCE ranging from approximately 20 to 70 gallons consists of:

- Six to 26 gallons of TCE in unsaturated soil (source area dimensions adjusted to 250 feet long, 10 feet wide and an average thickness of unsaturated soil of 18.5 feet);
- One to 8 gallons of TCE in saturated soil;

- Nine to 32 gallons of TCE in groundwater in the south plume;
- Less than 1 to 2 gallons of TCE in groundwater in the north plume; and
- Less than 1 gallon of TCE in groundwater in the northeast plume.

6 ISCO Remedial Effectiveness

This section reviews the November 2016 TCE concentrations in groundwater related to the effectiveness of the last ISCO injection event completed in Area 1, Area 2 and the supplemental neck area which occurred in September and October 2015 (13 months ago). ISCO was performed at the site using base-activated sodium persulfate (BASP) (Areas 1–3 and Neck Area) and Modified Fenton's Reagent (MFR) (west portion of Area 1). Further discussion of all ISCO injection events is provided in the *2015 Two Year Technical Review Report* (February 2016) and in respective previous quarterly reports.

The percent reduction in TCE concentrations was calculated for individual wells and for groups of wells in areas where ISCO injections occurred. If a well had not been sampled during this event, then the most recent result available was used to calculate the sum of TCE concentrations for each area. The calculations for assessment of ISCO remedial effectiveness have been modified compared to previous reports in accordance with the assessment of rebound presented in the RGWMP (see Section 5.1).

Table 11 presents a comparison of TCE concentrations in groundwater prior to the October 2014 ISCO event (September 2014 and October 2014) and the associated post-injection monitoring results in Area 1. The most recent post-injection monitoring results from November 2016 indicate overall TCE concentration decreases in seven monitoring wells ranging from 38% (MW-25) to nearly 100% (ITMW-18). Concentration increases relative to baseline conditions (September and October 2014 concentrations) include 1% at MW-93 and 29% at MW-95 (noting MW-93 and MW-95 are downgradient of the Area 1 treatment area).

The sum of TCE concentrations at the wells monitored in Area 1 decreased from a baseline of 944,213 µg/L in September and October 2014 to approximately 345,952 µg/L in November 2016 (~63% decrease).

MW-25, MW-85 and MW-86 are located within and along the western portion of the former linear drainage feature where the highest concentrations of TCE in groundwater have historically been measured. Table 12 presents historic data from May 2014 (prior to the second injection event) for these wells through November 2016. While TCE concentrations increased at MW-25 since May 2014, the sum of TCE concentrations in all three wells has decreased from approximately 553,470 µg/L in May 2014 to approximately 112,678 µg/L in November 2016 (~80% decrease). Baseline TCE concentrations at MW-25 and MW-85 were much lower, less than 1% to less than 4% of the baseline concentration observed at MW-86 while these three wells are located within approximately 25 feet of each other. Therefore, it is likely that the ISCO treatment in the area has liberated TCE bound to the surrounding soil into the aqueous phase. As mentioned in the April 8, 2016, *Response to ADEQ correspondence on the Fourth Quarter 2015 Progress Report,* fluctuations in TCE concentration in the groundwater can be viewed as a positive effect because contaminants become much more treatable in the aqueous phase.

Table 13 summarizes the TCE concentrations from wells in the supplemental neck area. The sum of TCE concentrations in the supplemental neck area decreased from approximately 1,296

µg/L prior to the second injection event in May 2014 to 26 µg/L in November 2016 (~98% decrease).

Table 14 summarizes the TCE concentrations from wells in Area 2 and Area 3. The sum of TCE concentrations in Area 2 and Area 3 decreased from approximately 3,865 µg/L prior to the second injection event in May 2014 to 588 µg/L in November 2016 (~85% reduction). As of November 2016, the majority of the supplemental neck area and Area 2 and Area 3 wells saw an 85% or greater decrease and no increasing TCE concentrations relative to baseline conditions were measured.

The effectiveness of ISCO injection events as compared to November 2016 monitoring results is summarized as follows:

- The sum of TCE concentrations in Area 1 wells (IW-127, IW-141, IW-147, IW-152, IW-153, IW-157, MW-25, MW-38, MW-85, MW-86, MW-92, MW-93, MW-94, MW-95, MW-172, ITMW-11, ITMW-12, ITMW-15, ITMW-17, ITMW-18 and ITMW-19) decreased from an approximate baseline (September and October 2014) of 944,213 µg/L to approximately 345,952 µg/L in November 2016, roughly two years following the last injection event in this area (~63% decrease), other notable decreases in TCE concentrations (greater than 85%) have been observed at MW-85, MW-94, ITMW-18 and ITMW-19.
- The sum of TCE concentrations in wells in the supplemental neck area (IW-101, MW-23, MW-24, MW-83 and MW-84) decreased from approximately 1,296 µg/L to approximately 26 µg/L roughly 13 months following the last injection event in this area for an approximate 98% decrease. No increasing TCE concentrations relative to baseline concentrations were measured.
- The sum of TCE concentrations in wells in Area 2 and Area 3 (MW-34, MW-35R, MW-36, MW-65, MW-81, MW-82, IW-77, IW-78, IW-79, IW-80 and IW-115) decreased from approximately 3,865 µg/L to approximately 588 µg/L roughly 13 months following the last injection event in this area for an approximate 85% decrease. No increasing TCE concentrations relative to baseline concentrations were measured.

Overall TCE concentrations continue to decrease in the supplemental neck while remaining generally stable in Area 1 and Areas 2 and 3 relative to the preceding sampling events.

6.1 Rebound

Rebound is a term used when concentrations of a COC in groundwater are observed to decrease following the implementation of a remediation technology and then increase at a later time. Rebound may be the result of back diffusion of COCs out of low permeability media; incomplete treatment of sorbed TCE followed by re-equilibration with the aqueous phase; or other processes[4].

[4] ISCO for Groundwater Remediation: Analysis of Field Applications and Performance; Krembs, Siegrist, Crimi, Furrer and Petri; Groundwater Monitoring and Remediation20, No. 4, Fall 2010, pages 42-53 (Peer reviewed reference).

As discussed in the RGWMP, rebound is an expected phenomenon and is known, in particular, to be a common occurrence when using ISCO as a source area remedy, as noted in the June 29, 2015, letter submitted to ADEQ titled *Methods for Assessment of Constituent Concentration Rebound* by Ramboll Environ. A rebound condition does not necessarily mean that the ISCO injection event has failed. Rebound can be an indication of the positive effects of the transfer of contaminants to the more treatable aqueous phase. ISCO was performed at the site using BASP (Areas 1–3 and Neck Area) and MFR (west portion of Area 1). The capacity of these oxidants to effectively oxidize TCE dissipates within approximately two to three months (depending upon pH) for BASP and within two to three weeks for MFR. Based upon the active life-span for the BASP and MFR oxidants and groundwater flow conditions, the assessment of rebound should be limited to approximately one to two years post-ISCO (i.e. subsequent fluctuations in TCE concentrations more than one to two years after ISCO are due to conditions other than rebound).

Before assessing rebound, an evaluation of variability needs to be performed to assess groundwater conditions at the monitoring wells. Variability consists of inconsistent constituent or oxidant concentration or field parameters varying 10% or more over three consecutive monitoring events. Table 15 shows the variation and percent of rebound identified in select monitoring wells within Areas 1-3 and the neck area. Comparison of the data collected from October 2014 through November 2016 documents variation at MW-25 and MW-38 which are both located within the treatment area. It is not appropriate to assess rebound definitively in treatment areas that exhibit variable TCE concentrations, sodium persulfate concentrations or field parameters. Further monitoring at these wells which exhibit variability will continue.

The calculation of rebound consists of comparing the pre-ISCO concentration in respective wells with the post-ISCO concentration in respective wells. As directed by ADEQ technical staff, the pre-ISCO concentrations at the Site have been calculated as the average of the TCE concentrations for the four quarters of the year prior to performance of ISCO. Several wells used to monitor ISCO were installed immediately prior to performance of ISCO; and therefore, for those particular wells, only limited data prior to the ISCO event is available for comparison.

As directed by ADEQ technical staff, the threshold assessment to identify circumstances where rebound may exist will be done by a formula. The formula is as follows. The concentration detected one full year after the ISCO treatment, minus the lowest post-ISCO concentration, shall be divided by the pre-ISCO concentration. If the resulting number is equal to or greater than 25%, a threshold indication of rebound is deemed to exist in the respective well. Mathematically stated: One year post-ISCO concentration - lowest post-ISCO concentration/pre-ISCO concentration ≥25%. However, this presumption of rebound shall only occur when the lowest post-ISCO concentration is greater than 20% and less than 60% of the pre-ISCO concentration (see RGWMP for further information).

In addition to the preceding formula, as requested by ADEQ technical staff, wells will be considered to be experiencing rebound if the one year post-ISCO concentration is 90% of the pre-treatment concentration as long as effective ISCO treatment occurred in the respective treatment area. Based on the data collected to date and the foregoing criteria, rebound criteria

is found to be occurring only at MW-25. However as discussed above MW-25 is exhibiting a high degree of variability; and therefore, it is not appropriate to assess this well for rebound conditions. In addition, MW-25 is located adjacent to monitoring wells MW-85 and MW-86, neither of which reflects conditions of rebound under the criteria established by the ADEQ; therefore, we do not believe a rebound condition triggering an Action Plan exists.

The Annual event was completed in November 2016 which is more than two years after the October 2014 ISCO injection event in Area 1 and the linear drainage feature and 13 months after the October 2015 ISCO injection event in Area 2 and the Neck Area. Based upon the active life-span information described above, an evaluation of rebound at this point is outside the timeline generally used for rebound assessment for Area 1. Therefore rebound will not be discussed in subsequent reports regarding Area 1 unless additional remedial action is undertaken so as to warrant such assessment. Rebound will be assessed for Area 2 and Neck Area and discussed in the 2017 Annual Report; although, no indication of rebound exists in these areas and most TCE concentrations in these area are either below or approaching the RAL.

7 ISCR Remedial Effectiveness

This section includes discussion of results for the ISCR Pilot Study being conducted at the northeast corner of the north plume in the vicinity of MW-61R. A total of 4,844 gallons of ISCR reagents including 7,500 pounds of ProvectIR-40™ (40% by weight 20-30 micron ZVI), 660 pounds of magnesium oxide (MgO) and 13 L of DHC (SDC-9 consortium) inoculum were injected across three permeable reactive barrier (PRB) treatment zones in 44 temporary direct push injection points from September 29 through October 2, 2015 (Figure 7). Post-injection monitoring has included field water quality parameters (temperature, conductivity, DO, pH, ORP, ferrous iron), laboratory geochemical and biochemical indicators (total iron, manganese, sulfate, alkalinity, ammonia, phosphate, TOC and volatile fatty acids (VFA), hydrogen and VOCs (EPA Method 5030B/8260). Monitoring was conducted on October 8, 2015 (six days following the end of the injection event), at subsequent 30 day intervals through January 2016 and at 210 post-injection (Table 16). The Annual event represents 13 months post-injection monitoring.

Observations regarding the field water quality data collected 13 months post-ISCR injection (concurrent with the Annual event) are as follows:

- At MW-61R the 13 month results indicate sustained negative ORP beginning 20 days post-injection (–152 mV) through November 2016 (-171 mV), very low DO over the same period (0 to 0.63 mg/L) and elevated specific conductance [2,190 to 1,063 microsiemens per centimeters (µS/cm)]. The field pH reading of 7.67 standard unit (SU) is within the range considered optimal (6 to 8 SU) and exceeds the baseline value of 6.22.
- At TMW-11 the ORP level remained negative (-150 mV in December 2015 and -131 mV in November 2016), DO is still near zero (0.21 mg/L) and the specific conductance is elevated (1,834 µS/cm). Field pH reading of 7.1 SU exceeds the baseline value of 6.52 SU.
- At TMW-10, DO decreased, the pH remains neutral (6.31 SU) and the ORP continues to be positive.

Table 17 presents the laboratory analytical results for VOCs and various natural attenuation parameters. The results in Table 17 indicate that the ISCR injection promoted a significant increase in total iron, manganese, sulfate, alkalinity, ammonia, phosphate, TOC and VFA, acetate, propionate and butyrate in comparison to the baseline data for MW-61R and TMW-11. The increases in total iron, ferric iron and ferrous iron were due to the ZVI material associated with the ProvectIR-40™ product. Likewise, the ISCR injection also resulted in a significant increase in TOC, which was subsequently utilized by the indigenous and bio-augmented microbial populations to produce VFA. The VFAs increased by more than two to three orders of magnitude in MW-61R, which also promoted the production of hydrogen, which is used as the electron donor for reductive dechlorination of VOCs. At the 90 day sample point, there were still elevated levels of VFAs propionate and acetate in TMW-11.

Approximately 13 month following injection, laboratory results supporting continuation of ISCR at MW-61R and TMW-11 include the following:

- Elevated total iron;

- Elevated alkalinity (MW-61R) and pH;
- Elevated CH_4 and positive results for ethane and ethene;
- Sustained presence of hydrogen and increasing hydrogen levels since May 2016; and,
- Positive results for molecular analysis with increasing counts, cells/mL, of DHC, tceA Reductase and VCR (vrcA and BAV1).

Table 18 shows the TCE concentrations for MW-61R, TMW-10 and TMW-11 over time and the percent TCE reductions 13 months post-injection. Concentrations have fluctuated but results still indicate an 86% and 96% reduction in TCE levels in MW-61R and TMW-11, respectively, indicating significant reduction of TCE continues near these wells. The cis-1,2-DCE and ethene results in Table 17 demonstrate reductive dechlorination in the groundwater near these wells.

Evidence that the pilot process has affected groundwater conditions near TMW-10 include:

- Previous monitoring results indicating increases in CH_4, iron, alkalinity and cis-1,2-DCE concentrations;
- Detection of ethane, ethene and hydrogen; and
- November 2016 TCE concentration reduction of 50%.

A summary of the field and analytical monitoring data is discussed below:

- Field water quality parameters and laboratory geochemical and biochemical analytical data indicate that the ISCR injection impacted MW-61R and TMW-11 within approximately one month post-injection. Specifically, there was a significant reduction in DO and ORP in MW-61R and TMW-11.
- The increase in cis-1,2-DCE concentrations in MW-61R and TMW-11 in comparison to baseline levels over the first 90 days indicate that the ISCR injection enhanced microbial reductive dechlorination in the groundwater.
- TCE concentration reductions ranging from 54-98% at TMW-11 over the 13 months since the ISCR injection, which appear to be due to a combination of abiotic and biological reactions.
- There has been a 29-86% reduction in TCE at MW-61R since the ISCR injection, which appears to be due to a combination of abiotic and biological reactions.
- There have been TCE reductions ranging from 35-50% in TMW-10 and cis-1,2-DCE levels have increased, indicating reductive dechlorination is occurring.
- The sum of the TCE concentrations for MW-61R, TMW-10 and TMW-11, 13 months post-injection, decrease from approximately 238 µg/L to 99 µg/L (~58% decrease).
- Cis-1,2-DCE levels are very low in MW-61R and TMW-11, VC remains non-detect in the presence of DCE and ethene is present indicating dechlorination is occurring to the end product ethene.

Reducing conditions have been sustained through the period of the pilot even with water table fluctuation(s) due to significant precipitation late 2015 resulting in a water table rise of 3 to 4 feet which brought additional oxygenated water into the area decreasing the effectiveness of ISCR.

Since late 2015, the water table has been dropping. The minor TCE concentration increases seen from January to May 2016 could have been associated with additional desorption from the soil-water matrix as the water table declined. From May to November water levels continued to decline, molecular analysis indicated increased cell counts for DHC, hydrogen concentrations increased and TCE concentrations decreased.

8 Summary and Conclusions

Monitoring and investigative activities during 2016 consisted of: two rounds of quarterly groundwater monitoring (January and April/May); one annual groundwater monitoring event (November); two indoor air and sub-slab vapor monitoring events within the Whirlpool building (February and June); abandonment of six wells (April and August) to facilitate the road expansion and construction projects bordering the Whirlpool property on the north and east boundaries; and, installation of three wells east of Jenny Lind Road to continue groundwater monitoring during the road construction projects (August).

A summary of the quarterly and annual monitoring event and associated conclusions are as follows:

- The groundwater potentiometric surface observed during 2016 is consistent with that historically observed at the Site.
- The direction of the hydraulic gradient continues to be influenced by a hydraulic divide located just north of the Whirlpool building with groundwater flow directions predominantly to the northeast and south on either side of the general divide.
    - Groundwater north of the divide is flowing in a northeasterly direction; and
    - Groundwater south of the divide is flowing in a southern/southeasterly direction with a southwesterly trend south of the manufacturing building.
- 2016 groundwater monitoring data shows generally decreasing to stable trends for TCE concentrations.
    - Plume boundary well data continue to show results generally consistent with historical TCE concentrations although trends in the northern portion of the plume near MW-61R have decreased due to ISCR injections and concentrations near the eastern plume boundary in the vicinity of MW-194 appear to have increased (see Appendix F for further discussion);
    - Offsite well data are similar to previous monitoring events and continue to show generally decreasing to stable TCE concentration trends;
    - Onsite well data continue to show generally decreasing to stable TCE concentration trends; although, the data has been influenced by the ISCO injections; and
    - Plume boundary well data in the south portion of the south plume continue to show results generally consistent with historical TCE concentrations although in the vicinity of MW-189 concentrations appear to have increased (see Appendix F for further discussion);
- The combination of chemical, geochemical and microbial data from 2016 are similar to the quarterly monitoring events in 2014 and 2015. The VOC results demonstrate that reductive dechlorination is occurring in multiple locations in the plume.
- The ISCO events performed in 2014 and 2015 continue to be effective with TCE concentration reductions as follows:

  - Approximately 80% decrease since May 2014 at source area wells MW-25, MW-85 and MW-86;
  - Supplemental neck area decrease of approximately 98% since May 2014; and
  - Approximately 85% decrease since May 2014 at wells in Areas 2 and 3.

- The ISCR event performed in September/October 2015 is proving to be effective with TCE concentrations reducing as follows:
  - The TCE concentration in MW-61R has been reduced by 86% and the TCE concentration in TMW-11 has been reduced by 96% as of approximately 405 days after ISCR injection; and
  - The sum of TCE concentrations for wells monitored continue to show a decreasing concentration trend from approximately 238 µg/L to 99 µg/L (~58% decrease).
- 2016 vapor intrusion monitoring continues to identify that risk estimates for vapor intrusion from groundwater in the neighborhood are below ADEQ's risk management limits of 10-4 and 1 for cumulative cancer risk and non-cancer hazards, respectively.
- Based upon the indoor air and sub-slab vapor samples collected during 2016, future monitoring was recommended after the building has been renovated to assess whether, under the actual circumstances, a potential complete exposure pathway would exist due to vapor intrusion and, if so, the significance of the potential exposure pathway and the need for remedial or protective measures, if any.

The investigation and monitoring activities at the site have not identified any complete exposure pathways (i.e. direct exposure, consumption or vapor intrusion). Given the current deed restrictions for the Whirlpool property and impacted offsite properties, there is no unacceptable risk to human health or the environment. Whirlpool has completed settlement agreements with the property owners where groundwater impacts have been characterized and these settlement agreements include: deed restrictions precluding the use of groundwater; a financial settlement; and, an access agreement to facilitate future investigation or monitoring, if required.

In addition to site investigation, remediation and monitoring activities performed at the site, Whirlpool has been actively working with vendors for the sale of the equipment within the building and marketing the building and property for sale for re-use.

Monitoring at the site will continue in accordance with the RGWMP with the next groundwater monitoring event planned to occur in March or April 2017. An Action Plan is submitted herewith to address the two trigger sampling points at MW-189 and MW-194.

9 References

2014 - Dissolved Gas Sampling Guidance; Microseeps Inc; http://www.microseeps.com/html/dissolved_gas.html

ADEQ (2013). Remedial Action Decision Document for Corrective Action. Whirlpool Corporation, Sebastian County, Arkansas, AFIN 66-00048. December 27.

EPA, 1998. "Technical protocol for evaluating natural attenuation of chlorinated solvents in groundwater" Office of Research and Development, EPA/600/R-98/128.

EPA, 2011. "An approach for evaluating the progress of natural attenuation in groundwater", Office of Research and Development, EPA/600/R-11/204.

Löffler, F, Yan, J., Ritalahti, K., Adrian, L., Edwards, E., Konstantinidis, K... Muller, J., Fullerton, H., Zinder, S. and Spormann, A., 2013. Dehalococcoides mccartyi gen. nov., sp. nov., obligately organohalide-respiring anaerobic bacteria relevant to halogen cycling and bioremediation, belong to a novel bacterial class, Dehalococcoidia classis nov., order Dehalococcoidales ord. nov. and family Dehalococcoidaceae fam. nov., within the phylum Chloroflexi. International Journal of Systematic and Evolutionary Microbiology, 63, 625–635.

Ramboll Environ, 2015. 2014 Remedial Action Effectiveness Report, January.

Ramboll Environ, 2015. Whirlpool Ft. Smith Sentinel Wells, November.

Ramboll Environ, 2016. Onsite Indoor Air and Sub-slab Soil Vapor Data Report, April 27.

Ramboll Environ, 2016. First Quarter 2016 Progress Report, May.

Ramboll Environ, 2016. Second Quarter 2016 Progress Report, August.

Ramboll Environ, 2016. Two Year Technical Review Report, January.

Sublette, K., Peacock, A., White, D., Davis, G., Ogles, D., Cook, D., Kolhatkar, R., Beckmann, D. and Yang, X., 2006. Monitoring Subsurface Microbial Ecology in a Sulfate-Amended, Gasoline-Contaminated Aquifer. *Groundwater Monitoring & Remediation, 26:* 70–78.

Sutton, N., Grotenhuis, T., Langenhoff, A. and H. Rijnaarts. 2011."Efforts to improve coupled in situ chemical oxidation with bioremediation: a review of optimization strategies", *Journal of Soils and Sediments* 11 (1), 129-140.

Vogel, T., Criddle, C. and McCarty, P., 1987. "ES Critical Reviews: Transformations of halogenated aliphatic compounds", *Environmental Science & Technology 21* (8), 722-736

Tables

TABLE 1
CONSTITUENTS OF CONCERN AND RADD GROUNDWATER REMEDIAL ACTION LEVELS
Whirlpool Facility - Fort Smith, Arkansas

Constituent of Concern	Remedial Action Level (ug/L)[1]
Acetone	12,000[2]
Benzene	5.0
Bromodichloromethane	80
Bromoform	80
Bromomethane	7.0[2]
2-Butanone	4,900[2]
Carbon Disulfide	720[2]
Carbon Tetrachloride	5.0
Chlorobenzene	100
Chloroethane	21,000[2]
Chloroform	80
Chloromethane	190[2]
Dibromochloromethane	80
1,1-Dichloroethane	2.4[2]
1,2-Dichloroethane	5.0
1,1-Dichloroethene	7.0
cis-1,2-Dichloroethene	70
trans-1,2-Dichloroethene	100
1,2-Dichloropropane	5.0
1,3-Dichloropropene	0.41[2]
Ethylbenzene	700
2-Hexanone	34[2]
4-methyl-2-pentanone	1,000[2]
Methylene chloride	5.0
Styrene	100
1,1,2,2-Tetrachloroethane	0.066[2]
Tetrachloroethene (PCE)	5.0
Toluene	1,000
1,1,1-Trichloroethane	200
1,1,2-Trichloroethane	5.0
Trichloroethene (TCE)	5.0
Vinyl chloride	2.0
Xylenes (total)	10,000

Notes:
RADD = Remedial action decision document
µg/L = Micrograms per liter
(1) = Maximum Contamination Level (USEPA, May 2013)
(2) = USEPA Tapwater Screening Level (MCL and Maximum Contaminant Level Goal Unavailable)

TABLE 2
GROUNDWATER MONITORING WELL NETWORK SAMPLED
FOR ANNUAL EVENTS
Whirlpool Facility - Fort Smith, Arkansas

Plume Boundary Wells				
ITMW-2	ITMW-16	ITMW-20	MW-22	MW-24
MW-26	MW-27	MW-28	MW-29	MW-39R
MW-40R	MW-50	MW-60R	MW-61R	MW-62R
MW-63R	MW-68	MW-96	MW-97	MW-98
MW-99	MW-184	MW-185	MW-186	MW-187
MW-188	MW-189	MW-190	MW-191	MW-192
MW-194	MW-195	MW-196		

Offsite Wells				
IW-73	IW-77	IW-78	MW-46R	MW-55R
MW-56R	MW-57R	MW-58R	MW-82	MW-175
MW-176	MW-183	RW-69	TMW-10	TMW-11

Onsite Wells				
ITMW-1	ITMW-5	ITMW-7	ITMW-9	ITMW-10
ITMW-18	ITMW-19	ITMW-21	MW-25	MW-33R
MW-38	MW-83	MW-84	MW-86	MW-87
MW-89	MW-91	MW-93	MW-95	MW-178
MW-179	MW-182			

TABLE 2
GROUNDWATER MONITORING WELL NETWORK SAMPLED
FOR ANNUAL EVENTS
Whirlpool Facility - Fort Smith, Arkansas

Plume Boundary Wells				
ITMW-2	ITMW-16	ITMW-20	MW-22	MW-24
MW-26	MW-27	MW-28	MW-29	MW-39R
MW-40R	MW-50	MW-60R	MW-61R	MW-62R
MW-63R	MW-68	MW-96	MW-97	MW-98
MW-99[1]	MW-184	MW-185	MW-186	MW-187
MW-188	MW-189	MW-190	MW-191	MW-192
MW-194	MW-195	MW-196		
Offsite Wells				
IW-73	IW-77	IW-78	MW-46R	MW-55R
MW-56R	MW-57R	MW-58R	MW-82	MW-175
MW-176	MW-183	RW-69	TMW-10	TMW-11
Onsite Wells				
ITMW-1	ITMW-5	ITMW-7	ITMW-9	ITMW-10
ITMW-18	ITMW-19	ITMW-21	MW-25	MW-38
MW-83	MW-84	MW-86	MW-87	MW-89
MW-91	MW-93	MW-95	MW-178	MW-179[1]
MW-182				

TABLE 3
SUMMARY OF MONITORING WELL STATIC WATER LEVEL MEASUREMENTS
Whirlpool Facility - Fort Smith, Arkansas

Location	Well Coordinates		TOC Elevation (ft)	Top of Screen Elevation (ft)	Bottom of Screen Elevation (ft)	Screen Length (ft)	Top of screen Depth	Bottom of screen Depth	Screened Interval (ft)	Maximum Static Water Elevation	Maximum Elevation Date	Minimum Static Water Elevation	Minimum Elevation Date	Static Water Level Elevation (ft)						
	Easting (ft)	Northing (ft)												4/13/2015	7/20/2015	10/5/2015	1/6/2016	5/2/2016	DTW	11/7/2016
ITMW-1	591383	368913	476.93	460.43	446.68	13.75	16.50	30.25	16.50 - 30.25	469.03	10/28/1999	460.84	3/25/2014	462.32	463.82	463.92	463.04	462.74	15.72	461.21
ITMW-2	591189	369021	474.97	462.22	447.77	14.45	12.75	27.20	12.75 - 27.20	465.92	10/14/2013	461.98	3/25/2014	463.55	464.87	464.85	464.25	463.98	12.72	462.25
ITMW-3	591306	369075	474.72	464.07	449.27	14.80	10.65	25.45	10.65 - 25.45	467.17	10/14/2013	460.27	1/12/2015	462.96	464.39	464.42	463.65	463.39	12.90	461.82
ITMW-4	591251	368208	478.19	459.99	445.99	14.00	18.20	32.20	18.20 - 32.20	466.85	1/12/2015	460.01	4/22/2013	462.18	463.38	463.41	462.76	462.53	18.18	460.01
ITMW-5	590982	368205	478.93	459.03	449.28	9.75	19.90	29.65	19.90 - 29.65	465.05	10/28/1999	454.77	4/22/2013	462.03	463.20	463.22	462.67	462.41	18.82	460.11
ITMW-6	590923	367970	483.04	461.39	446.89	14.50	21.65	36.15	21.65 - 36.15	466.20	1/12/2015	454.06	4/22/2013	461.94	462.94	462.86	462.49	462.28	23.03	460.01
ITMW-7	590546	368323	481.95	460.05	445.05	15.00	21.90	36.90	21.90 - 36.90	464.25	10/1/2009	457.98	10/14/2013	463.00	463.65	463.30	463.48	463.35	20.82	461.13
ITMW-9	591256	368146	481.90	461.95	448.45	13.50	19.95	33.45	19.95 - 33.45	465.16	10/28/1999	455.60	4/22/2013	462.07	463.27	463.29	462.67	462.41	22.01	459.89
ITMW-10	590978	368157	480.84	458.19	447.24	10.95	22.65	33.60	22.65 - 33.60	465.01	10/28/1999	457.64	4/22/2013	462.03	463.17	463.17	462.64	462.41	20.73	460.11
ITMW-11	590978	369040	474.07	458.82	445.37	13.45	15.25	28.70	15.25 - 28.70	465.82	10/1/2012	459.11	1/12/2015	464.15	465.39	465.26	464.83	464.53	11.23	462.84
ITMW-12	590998	369007	476.67	461.67	446.67	15.00	15.00	30.00	15.00 - 30.00	466.49	1/12/2015	462.21	3/1/2011	463.86	465.13	465.00	464.57	464.27	14.18	462.49
ITMW-13	591047	369052	477.79	463.79	448.79	15.00	14.00	29.00	14.00 - 29.00	465.25	10/1/2009	462.23	3/25/2014	463.84	465.10	465.01	464.54	464.22	15.30	462.49
ITMW-14	591098	369056	477.30	462.50	447.80	14.70	14.80	29.50	14.80 - 29.50	468.88	10/14/2013	461.08	1/12/2015	463.75	464.98	464.93	464.40	464.17	14.90	462.40
ITMW-15	590944	369043	474.50	459.50	444.50	15.00	15.00	30.00	15.00 - 30.00	465.48	10/1/2009	462.39	1/12/2015	463.59	465.38	465.25	464.85	464.58	11.75	462.75
ITMW-16	590967	369100	478.79	461.79	446.79	15.00	17.00	32.00	17.00 - 32.00	468.22	1/12/2015	462.49	3/25/2014	464.07	465.31	465.20	464.76	464.49	16.06	462.73
ITMW-17	590864	369051	477.90	461.90	446.90	15.00	16.00	31.00	16.00 - 31.00	466.20	10/14/2013	462.39	3/25/2014	463.94	465.16	465.03	464.67	464.33	15.33	462.57
ITMW-18	590976	368955	473.55	458.55	443.55	15.00	15.00	30.00	15.00 - 30.00	465.19	10/1/2009	458.99	1/12/2015	463.80	465.03	464.96	464.51	464.18	11.10	462.45
ITMW-19	590890	368961	476.25	460.25	445.25	15.00	16.00	31.00	16.00 - 31.00	465.94	1/12/2015	462.31	3/25/2014	463.80	465.11	465.01	464.59	464.26	13.66	462.59
ITMW-20	590370	369042	477.87	463.87	448.87	15.00	14.00	29.00	14.00 - 29.00	465.44	10/1/2009	462.80	10/14/2013	464.48	465.23	464.82	464.94	464.78	15.07	462.80
ITMW-21	590629	368898	476.52	460.52	445.52	15.00	16.00	31.00	16.00 - 31.00	465.32	10/1/2009	461.27	4/22/2013	464.28	465.12	464.78	464.78	464.60	13.84	462.68
MW-22	591853	368913	473.93	459.93	444.93	15.00	14.00	29.00	14.00 - 29.00	465.64	10/28/1999	461.27	3/25/2014	462.56	464.19	464.24	463.37	463.09	12.37	461.56
MW-23	590892	369238	475.80	461.80	446.80	15.00	14.00	29.00	14.00 - 29.00	474.19	10/1/2009	462.56	3/25/2014	464.13	465.32	464.93	464.84	464.55	13.01	462.79
MW-24	590876	369134	476.39	458.39	443.39	15.00	18.00	33.00	18.00 - 33.00	465.35	7/20/2015	462.57	3/25/2014	464.12	465.35	465.23	464.79	464.53	13.67	462.72
MW-25	590743	369006	476.89	459.89	444.89	15.00	17.00	32.00	17.00 - 32.00	465.49	10/1/2009	462.63	3/25/2014	464.19	465.37	465.22	464.87	464.54	14.10	462.79
MW-26	590566	369230	478.05	459.55	444.55	15.00	18.50	33.50	18.50 - 33.50	465.75	10/1/2009	463.18	3/25/2014	464.72	465.56	465.22	465.23	465.02	14.87	463.18
MW-27	591077	369226	475.42	460.42	445.42	15.00	15.00	30.00	15.00 - 30.00	465.33	7/20/2015	462.50	3/25/2014	464.11	465.33	465.21	464.79	464.53	12.72	462.70
MW-28	591324	369209	470.49	457.49	442.49	15.00	13.00	28.00	13.00 - 28.00	465.20	7/20/2015	458.86	1/12/2016	464.33	465.20	464.52	464.49	464.18	7.90	462.59
MW-29	590181	368371	474.91	458.91	443.91	15.00	16.00	31.00	16.00 - 31.00	468.30	1/12/2015	461.94	10/1/2011	463.93	464.42	463.87	464.51	464.50	12.97	461.94
MW-30	590579	368432	478.99	457.99	442.99	15.00	21.00	36.00	21.00 - 36.00	467.41	1/12/2015	461.81	3/25/2014	463.62	464.33	463.96	464.10	463.90	17.18	461.81
MW-31	590824	369286	476.03	458.53	448.53	10.00	17.50	27.50	17.50 - 27.50	465.35	9/10/2001	460.52	1/12/2015	NA	NA	NA	NA	NA	NA	NA
MW-31R	590823	369288	475.73	455.73	445.73	10.00	20.00	30.00	20.00-30.00	465.13	7/20/2015	463.93	4/13/2015	463.93	465.13	465.08	464.61	NA	NA	NA
MW-32[1]	590909	369279	475.68	458.68	448.68	10.00	17.00	27.00	17.00 - 27.00	464.80	4/1/2010	462.59	3/25/2014	NA	NA	NA	NA	NA	NA	NA
MW-32R	590908	369282	475.50	455.00	445.00	10.00	20.50	30.50	20.50-30.50	465.09	7/20/2015	463.94	4/13/2015	463.94	465.09	465.05	464.61	NA	NA	NA
MW-33[1]	590994	369276	474.88	459.08	449.08	10.00	15.80	25.80	15.80 - 25.80	465.70	9/10/2001	462.50	3/25/2014	NA	NA	NA	NA	NA	NA	NA
MW-33R	590993	369277	474.60	455.60	445.60	10.00	19.00	29.00	19.00-29.00	465.19	7/20/2015	463.97	4/13/2015	463.97	465.19	465.08	464.61	NA	NA	NA
MW-34[1]	590932	369336	474.29	454.79	444.79	10.00	19.50	29.50	19.50 - 29.50	465.52	10/1/2009	462.68	3/26/2001	464.23	NA	NA	NA	NA	NA	NA
MW-34R	590911	369339	474.23	452.73	445.73	7.00	21.50	28.50	21.50-28.50	465.43	7/20/2015	462.85	5/2/2016	NA	465.43	465.37	464.91	464.61	11.38	462.85
MW-35R[3]	590994	369333	473.87	454.37	444.37	10.00	19.50	29.50	19.50 - 29.50	465.32	7/20/2015	462.57	3/25/2014	464.12	465.32	465.26	464.78	464.54	11.15	462.72
MW-36[1]	591079	369329	473.30	461.30	446.30	15.00	12.00	27.00	12.00 - 27.00	465.51	10/1/2009	462.71	4/1/2010	464.29	NA	NA	NA	NA	NA	NA
MW-36R	591078	369328	472.98	452.98	443.98	9.00	20.00	29.00	20.00-29.00	465.27	7/20/2015	462.58	5/2/2016	NA	465.27	465.20	464.73	464.47	10.40	462.58
MW-37	590972	369028	473.57	458.57	443.57	15.00	15.00	30.00	15.00 - 30.00	465.48	10/1/2009	462.52	3/25/2014	463.30	465.39	465.27	464.85	464.53	10.79	462.78
MW-38	590960	369040	474.60	459.60	444.60	15.00	15.00	30.00	15.00 - 30.00	465.48	10/1/2009	462.51	3/25/2014	465.09	465.39	465.25	464.83	464.51	11.85	462.75
MW-39[1]	590833	369421	475.46	455.96	445.96	10.00	19.50	29.50	19.50 - 29.50	465.00	1/12/2015	461.61	3/5/2014	464.26	NA	NA	NA	NA	NA	NA
MW-39R	590840	369429	474.72	450.22	445.22	5.00	24.50	29.50	24.50-29.50	465.41	7/20/2015	462.88	5/2/2016	NA	465.41	465.32	464.84	464.56	11.84	462.88
MW-40[1]	590998	369622	473.35	455.60	445.60	10.00	17.75	27.75	17.75 - 27.75	464.76	10/13/2014	455.04	10/14/2013	464.25	NA	NA	NA	NA	NA	NA
MW-40R	591013	369624	473.09	454.59	444.59	10.00	18.50	28.50	18.50 - 28.50	465.29	7/20/2015	462.72	5/2/2016	NA	465.29	465.23	464.73	464.49	10.37	462.72
MW-41[1]	591061	369469	472.09	453.34	443.34	10.00	18.75	28.75	18.75 - 28.75	464.45	10/13/2014	462.63	3/25/2014	464.21	NA	NA	NA	NA	NA	NA
MW-41R	591061	369478	471.84	453.84	443.84	10.00	18.00	28.00	18.00 - 28.00	465.13	7/20/2015	462.64	5/2/2016	NA	465.13	465.10	464.63	464.41	9.20	462.64
MW-46R	591472	369609	465.79	449.19	444.19	5.00	16.60	21.60	16.60 - 21.60	464.88	7/20/2015	457.50	1/12/2015	462.85	464.88	464.67	464.40	464.21	3.45	462.34
MW-50	591415	370213	463.11	455.11	445.11	10.00	8.00	18.00	8.00 - 18.00	459.81	10/13/2014	453.92	1/12/2015	457.39	NA	NA	NA	NA	NA	NA
MW-50R	591415	370210	462.65	449.65	444.65	5.00	13.00	18.00	13.00 - 18.00	455.84	7/20/2015	453.77	5/2/2016	NA	455.84	455.32	455.35	454.19	8.88	453.77
MW-55[1]	591291	369893	465.50	450.00	445.00	5.00	15.50	20.50	15.50 - 20.50	463.06	10/14/2013	461.59	3/5/2014	NM	NA	NA	NA	NA	NA	NA
MW-55R	591291	369895	465.30	446.30	444.30	2.00	19.00	21.00	19.00 - 21.00	465.06	7/20/2015	462.39	1/6/2016	NA	465.06	464.60	464.57	NA	2.91	462.39
MW-56[1]	591687	369730	463.22	448.72	443.72	5.00	14.50	19.50	14.50 - 19.50	462.55	10/13/2014	456.49	3/25/2014	NA	NA	NA	NA	NA	NA	NA
MW-56R	591687	369732	463.17	445.17	443.17	2.00	18.00	20.00	18.00 - 20.00	462.47	7/20/2015	459.03	10/5/2015	NA	462.47	461.63	462.11	462.22	4.14	459.03
MW-57[1]	591690	369811	462.90	448.90	443.90	5.00	14.00	19.00	14.00 - 19.00	461.14	4/13/2015	457.65	3/25/2014	461.14	NA	NA	NA	NA	NA	NA

TABLE 3
SUMMARY OF MONITORING WELL STATIC WATER LEVEL MEASUREMENTS
Whirlpool Facility - Fort Smith, Arkansas

Location	Well Coordinates		TOC Elevation (ft)	Top of Screen Elevation (ft)	Bottom of Screen Elevation (ft)	Screen Length (ft)	Top of screen Depth	Bottom of screen Depth	Screened Interval (ft)	Maximum Static Water Elevation	Maximum Elevation Date	Minimum Static Water Elevation	Minimum Elevation Date	Static Water Level Elevation (ft)						
	Easting (ft)	Northing (ft)												4/13/2015	7/20/2015	10/5/2015	1/6/2016	5/2/2016	DTW	11/7/2016
MW-57R	591693	369806	462.92	447.92	442.92	5.00	15.00	20.00	15.00 - 20.00	462.26	7/20/2015	458.68	10/5/2015	NA	462.26	461.26	462.04	462.07	4.24	458.68
MW-58[1]	591570	369907	462.71	450.21	445.21	5.00	12.50	17.50	12.50 - 17.50	462.71	10/13/2014	461.01	1/12/2015	NA	NA	NA	NA	NA	NA	NA
MW-58R	591571	369898	465.98	451.98	446.98	5.00	14.00	19.00	14.00 - 19.00	464.68	7/20/2015	461.73	5/2/2016	NA	464.68	463.83	463.88	463.78	4.25	461.73
MW-60[1]	591710	370193	460.85	448.85	443.85	5.00	12.00	17.00	12.00 - 17.00	458.07	10/13/2014	452.38	1/12/2015	455.03	NA	NA	NA	NA	NA	NA
MW-60R	591710	370193	460.66	450.16	445.16	5.00	10.50	15.50	10.50 - 15.50	458.55	10/5/2015	456.02	5/2/2016	NA	458.19	458.55	456.36	456.02	2.70	457.96
MW-61[1]	592003	370175	459.61	449.11	444.11	5.00	10.50	15.50	10.50 - 15.50	453.32	7/28/2014	448.21	3/5/2014	452.75	NA	NA	NA	NA	NA	NA
MW-61R	591999	370175	459.31	448.81	443.81	5.00	10.50	15.50	10.50 - 15.50	456.38	10/5/2015	452.14	1/6/2016	NA	454.63	456.38	452.14	452.91	6.78	452.53
MW-62[1]	591791	369569	464.33	448.83	443.83	5.00	15.50	20.50	15.50 - 20.50	464.03	1/12/2015	456.68	3/5/2014	459.87	NA	NA	NA	NA	NA	NA
MW-62R	591790	369572	464.19	449.19	444.19	5.00	15.00	20.00	15.00 - 20.00	461.72	7/20/2015	458.53	1/6/2016	NA	461.72	461.19	460.32	460.46	5.66	458.53
MW-63[1]	591994	369560	463.87	447.87	442.87	5.00	16.00	21.00	16.00 - 21.00	461.43	10/13/2014	455.05	3/25/2014	459.36	NA	NA	NA	NA	NA	NA
MW-63R	591993	369559	463.94	448.94	443.94	5.00	15.00	20.00	15.00 - 20.00	462.29	7/20/2015	460.05	5/2/2016	NA	462.29	462.08	460.93	460.79	3.89	460.05
MW-65[3]	590980	369335	473.91	454.41	444.41	10.00	19.50	29.50	19.50 - 29.50	473.91	1/12/2015	462.63	3/25/2014	464.12	465.70	465.25	464.78	464.55		473.91
MW-66	592280	369855	462.05	449.45	444.45	5.00	12.60	17.60	12.60 - 17.60	460.24	7/20/2015	446.54	1/12/2015	458.22	460.24	460.00	458.69	458.74	NA	NA
MW-67	592291	370027	459.01	449.41	444.41	5.00	9.60	14.60	9.60 - 14.60	458.42	7/28/2014	449.31	10/13/2014	456.87	NA	NA	NA	NA	NA	NA
MW-67R	592291	370022	459.16	447.16	442.16	5.00	12.00	17.00	12.00 - 17.00	458.96	7/20/2015	456.44	5/2/2016	NA	458.96	458.49	457.45	456.44	NA	NA
MW-68	591173	369815	469.81	455.81	445.81	10.00	14.00	24.00	14.00 - 24.00	465.23	1/12/2015	462.40	3/25/2014	464.19	465.23	465.07	464.79	464.59	7.41	462.40
RW-69[3]	591170	369678	470.89	455.89	445.89	10.00	15.00	25.00	15.00 - 25.00	464.97	7/20/2015	462.34	3/25/2014	463.83	464.97	464.82	464.42	464.19	8.55	462.34
MW-70	591162	369693	471.53	NA	NA	NA	NA	NA	NA	465.33	7/20/2015	462.52	3/25/2014	464.17	465.33	465.14	464.77	464.59	8.83	462.70
MW-71	591170	369695	471.35	NA	NA	NA	NA	NA	NA	465.35	7/20/2015	462.55	3/25/2014	464.20	465.35	465.17	464.79	464.56	8.65	462.70
IW-72[3]	591056	369590	471.65	456.65	446.65	10.00	15.00	25.00	15.00 - 25.00	465.19	7/20/2015	462.11	10/14/2013	464.04	465.19	465.12	464.63	464.30	9.05	462.60
IW-73	591060	369503	471.48	NA	NA	NA	NA	NA	NA	465.29	7/20/2015	462.61	3/25/2014	464.19	465.29	465.24	464.79	464.54	8.75	462.73
IW-74[2,3]	591058	369545	472.06	457.06	447.06	10.00	15.00	25.00	15.00 - 25.00	465.26	7/20/2015	462.38	10/14/2013	464.09	465.26	465.22	464.74	464.49	9.40	462.66
IW-75	591072	369605	472.17	NA	NA	NA	NA	NA	NA	465.36	7/20/2015	462.47	3/25/2014	464.07	465.36	465.25	464.84	464.54	9.45	462.72
IW-76	591050	369426	472.26	NA	NA	NA	NA	NA	NA	465.17	7/20/2015	462.37	3/25/2014	464.01	465.17	465.11	464.62	464.40	9.67	462.59
IW-77[2]	591027	369380	473.01	453.01	443.01	10.00	20.00	30.00	20.00 - 30.00	465.37	7/20/2015	462.54	3/25/2014	464.17	465.37	465.27	464.81	464.55	10.20	462.81
IW-78	590984	369338	473.49	NA	NA	NA	NA	NA	NA	465.38	7/20/2015	461.77	3/25/2014	464.14	465.38	465.23	464.80	464.55	11.72	461.77
IW-79	591018	369335	473.84	NA	NA	NA	NA	NA	NA	465.39	7/20/2015	462.65	3/25/2014	464.14	465.39	465.28	464.80	464.54	11.04	462.80
IW-80[2,3]	591047	369343	473.30	453.30	443.30	10.00	20.00	30.00	20.00 - 30.00	465.21	7/20/2015	462.38	3/25/2014	464.00	465.21	465.14	464.68	464.46	10.61	462.69
IW-101	590930	369201	475.70	452.80	447.80	5.00	22.90	27.90	22.90-27.90	464.66	1/6/2016	463.50	5/2/2016	NA	NA	NA	464.66	463.50	NA	NA
IW-115	591007	369344	473.41	454.31	449.31	5.00	19.10	24.10	19.10-24.10	464.64	1/6/2016	462.38	5/2/2016	NA	NA	NA	464.64	464.44	11.03	462.38
IW-129	590989	368977	473.54	448.99	443.99	5.00	24.55	29.55	24.55 - 29.55	463.08	NA	463.08	NA	NA	NA	NA	NA	NA	NA	NA
IW-130	590924	369186	475.58	452.20	447.28	5.00	23.38	28.30	23.38 - 28.38	463.20	NA	463.20	NA	NA	NA	NA	NA	NA	NA	NA
IW-131	591006	369339	473.37	453.65	448.65	5.00	19.72	24.72	19.72 - 24.72	463.21	NA	463.21	NA	NA	NA	NA	NA	NA	NA	NA
MW-81	590977	369395	473.54	453.54	448.54	5.00	20.00	25.00	20.00-25.00	465.33	7/20/2015	462.74	1/12/2015	464.15	465.33	465.25	464.75	464.53	10.80	462.74
MW-82	591039	369406	473.60	452.60	447.60	5.00	21.00	26.00	21.00-26.00	465.35	7/20/2015	462.73	1/12/2015	464.15	465.35	465.26	464.76	464.50	10.87	462.73
MW-83	590946	369211	475.48	453.48	448.48	5.00	22.00	27.00	22.00-27.00	465.25	7/20/2015	462.64	1/12/2015	464.02	465.25	465.01	464.72	464.47	12.84	462.64
MW-84	590882	369194	475.53	451.53	446.53	5.00	24.00	29.00	24.00-29.00	466.39	1/6/2016	462.58	1/12/2015	463.93	465.19	464.97	466.39	464.31	12.95	462.58
MW-85	590760	369018	474.41	449.41	444.41	5.00	25.00	30.00	25.00-30.00	465.21	7/20/2015	462.62	1/12/2015	464.00	465.21	465.06	464.68	464.33	11.79	462.62
MW-86	590767	368995	473.19	450.19	445.19	5.00	23.00	28.00	23.00-28.00	465.10	7/20/2015	462.54	1/12/2015	463.74	465.10	464.99	464.64	464.31	10.65	462.54
MW-87	592269	368835	470.78	453.78	443.78	10.00	17.00	27.00	17.00-27.00	460.91	10/15/2015	458.21	4/13/2015	459.66	460.74	460.91	460.48	460.00	12.57	458.21
MW-88	592151	369043	468.89	450.89	440.89	10.00	18.00	28.00	18.00-28.00	462.85	10/5/2015	459.38	4/13/2015	459.38	461.49	462.85	461.49	459.97	7.62	461.27
MW-89	592357	369059	466.91	451.91	441.91	10.00	15.00	25.00	15.00-25.00	459.23	10/5/2015	457.01	1/12/2015	458.10	459.05	459.23	458.98	458.44	9.90	457.01
MW-90	592157	369157	466.71	451.71	441.71	10.00	15.00	25.00	15.00-25.00	463.26	10/5/2015	459.90	4/13/2015	459.90	460.67	463.26	462.13	460.73	4.05	462.66
MW-91	592371	368830	468.90	453.90	443.90	10.00	15.00	25.00	15.00-25.00	460.19	10/5/2015	457.60	4/13/2015	459.03	460.11	460.19	459.79	459.32	11.30	457.60
MW-92	590778	368921	473.74	453.74	443.74	10.00	20.00	30.00	20.00-30.00	465.29	7/20/2015	462.73	1/12/2015	464.06	465.29	465.17	464.89	464.43	11.01	462.73
MW-93	590908	368894	477.81	452.81	442.81	10.00	25.00	35.00	25.00-35.00	465.12	7/20/2015	462.58	1/12/2015	463.86	465.12	465.08	464.57	464.27	15.23	462.58
MW-94	591015	368903	477.86	452.86	442.86	10.00	25.00	35.00	25.00-35.00	464.97	7/20/2015	462.41	1/12/2015	463.70	464.97	464.94	464.42	464.11	15.45	462.41
MW-95	590981	368821	477.63	452.63	442.63	10.00	25.00	35.00	25.00-35.00	465.01	7/20/2015	462.49	1/12/2015	463.77	465.01	464.98	464.45	464.13	15.14	462.49
MW-96	592775	369354	457.83	447.83	442.83	5.00	10.00	15.00	10.00-15.00	451.69	5/2/2016	449.24	4/13/2015	449.59	449.73	449.84	450.60	451.69	8.59	449.24
MW-97	592687	369527	459.43	447.93	442.93	5.00	11.50	16.50	11.50-16.50	450.84	1/6/2016	445.65	10/22/2014	448.80	449.53	450.55	450.84	450.70	8.96	450.47
MW-98	592840	369198	461.62	446.62	441.62	10.00	15.00	20.00	15.00-20.00	451.04	5/2/2016	442.77	10/29/2014	449.16	449.86	449.35	450.70	451.04	11.90	449.72
MW-99	592554	368814	466.80	448.30	443.30	5.00	18.50	23.50	18.50-23.50	459.89	7/20/2015	454.63	10/22/2014	458.70	459.89	459.87	459.51	459.06	NA	NA
MW-172	590858	369002	472.94	454.94	444.94	10.00	18.00	28.00	18.00-28.00	465.27	7/20/2015	462.66	5/2/2016	464.94	465.27	465.14	464.73	464.39	10.28	462.66
MW-173	591973	369624	463.56	458.56	457.56	1.00	5.00	6.00	5.00-6.00	462.63	7/20/2015	457.61	4/13/2015	457.61	462.63	461.81	462.31	462.44	2.13	461.43
MW-174	591976	369644	463.45	452.45	451.45	1.00	11.00	12.00	11.00-12.00	461.75	10/5/2015	457.67	4/13/2015	457.67	459.92	461.75	459.71	460.01	3.68	459.77
MW-175	591603	369655	464.17	450.67	449.67	1.00	13.50	14.50	13.50-14.50	463.71	7/20/2015	460.25	4/13/2015	460.25	463.71	463.47	463.37	463.42	1.95	462.22

TABLE 3
SUMMARY OF MONITORING WELL STATIC WATER LEVEL MEASUREMENTS
Whirlpool Facility - Fort Smith, Arkansas

Location	Well Coordinates		TOC Elevation (ft)	Top of Screen Elevation (ft)	Bottom of Screen Elevation (ft)	Screen Length (ft)	Top of screen Depth	Bottom of screen Depth	Screened Interval (ft)	Maximum Static Water Elevation	Maximum Elevation Date	Minimum Static Water Elevation	Minimum Elevation Date	Static Water Level Elevation (ft)						
	Easting (ft)	Northing (ft)												4/13/2015	7/20/2015	10/5/2015	1/6/2016	5/2/2016	DTW	11/7/2016
MW-176	591474	369675	465.24	452.24	451.24	1.00	13.00	14.00	13.00-14.00	464.66	7/20/2015	462.30	4/13/2015	463.81	464.66	464.49	464.38	464.18	2.94	462.30
MW-177	591148	369698	471.50	462.50	461.50	1.00	9.00	10.00	9.00-10.00	469.97	1/6/2016	465.19	10/5/2015	466.94	469.09	465.34	469.97	469.00	6.31	465.19
MW-178	590973	369232	475.40	468.40	467.40	1.00	7.00	8.00	7.00-8.00	472.05	5/2/2016	470.38	10/5/2015	471.94	471.94	471.48	471.93	472.05	5.02	470.38
MW-179	590984	369232	475.39	463.39	462.39	1.00	12.00	13.00	12.00-13.00	467.66	7/20/2015	462.70	4/13/2015	462.70	467.66	464.23	465.93	NA	8.59	466.80
MW-180	590996	369231	475.32	469.32	468.32	1.00	6.00	7.00	6.00-7.00	471.93	5/2/2016	469.60	10/5/2015	471.76	471.69	471.46	471.81	471.93	5.72	469.60
MW-181	591156	369695	471.87	465.87	464.87	1.00	6.00	7.00	6.00-7.00	469.37	1/6/2016	<464.87	11/7/2016	467.56	468.35	456.87	469.37	468.27	DRY	NA
MW-182	590403	367900	474.64	453.64	443.64	10.00	21.00	31.00	21.00-31.00	461.60	10/5/2015	459.39	5/2/2016	NA	NA	461.60	461.51	461.44	15.25	459.39
MW-183	592664	369246	462.42	447.42	442.42	5.00	15.00	20.00	15.00-20.00	451.36	5/2/2016	450.11	10/5/2015	NA	NA	450.11	450.50	451.36	12.22	450.20
MW-184	592646	369023	465.58	446.58	441.58	5.00	19.00	24.00	19.00-24.00	458.42	10/5/2015	456.59	5/2/2016	NA	NA	458.42	458.38	457.77	8.99	456.59
MW-185	592256	367995	473.86	453.86	443.86	10.00	20.00	30.00	20.00-30.00	463.49	10/5/2015	459.29	5/2/2016	NA	NA	463.49	462.66	462.53	14.57	459.29
MW-186	590124	367716	469.80	451.80	441.80	10.00	18.00	28.00	18.00-28.00	457.44	5/2/2016	455.78	10/5/2015	NA	NA	457.18	457.33	457.44	14.02	455.78
MW-187	590249	367588	477.42	453.42	443.42	10.00	24.00	34.00	24.00-34.00	459.21	5/2/2016	457.42	10/5/2015	NA	NA	459.06	459.15	459.21	20.00	457.42
MW-188	590646	367509	481.14	455.14	445.14	10.00	26.00	36.00	26.00-36.00	462.10	10/5/2015	459.62	5/2/2016	NA	NA	462.10	461.91	461.72	21.52	459.62
MW-189	590860	367666	485.59	454.59	444.59	10.00	31.00	41.00	31.00-41.00	462.83	10/5/2015	459.98	5/2/2016	NA	NA	462.83	462.44	462.26	25.61	459.98
MW-190	591325	367745	481.29	454.29	444.29	10.00	27.00	37.00	27.00-37.00	463.27	10/5/2015	460.00	5/2/2016	NA	NA	463.27	462.70	462.46	21.29	460.00
MW-191	591662	367732	476.85	453.85	443.85	10.00	23.00	33.00	23.00-33.00	463.37	10/5/2015	459.92	5/2/2016	NA	NA	463.37	462.72	462.47	16.93	459.92
MW-192	592078	367679	475.33	454.33	444.33	10.00	21.00	31.00	21.00-31.00	463.42	10/5/2015	459.73	5/2/2016	NA	NA	463.42	462.69	462.50	15.60	459.73
MW-193	592312	370289	455.26	447.76	442.76	5.00	7.50	12.50	7.50-12.50	453.76	5/2/2016	451.25	10/5/2015	NA	NA	451.25	453.30	453.76	NA	NA
MW-194	592161	369791	462.47	451.47	441.47	10.00	11.00	21.00	11.00-12.00	457.10	11/7/2016	457.10	11/7/2016	NA	NA	NA	NA	NA	5.37	457.10
MW-195	592185	370025	459.36	446.36	441.36	5.00	13.00	18.00	13.00-18.00	456.94	11/7/2016	456.94	11/7/2016	NA	NA	NA	NA	NA	2.42	456.94
MW-196	592217	370132	457.63	447.63	442.63	5.00	10.00	15.00	10.00-15.00	454.07	11/7/2016	454.07	11/7/2016	NA	NA	NA	NA	NA	3.56	454.07
TMW-10	591973	370113	460.75	450.25	445.25	5.00	10.50	15.50	10.50-15.50	456.19	1/6/2016	454.95	5/2/2016	NA	NA	NA	455.53	454.95	4.56	456.19
TMW-11	591956	370078	460.20	449.70	444.70	5.00	10.50	15.50	10.50-15.50	456.50	1/6/2016	454.95	5/2/2016	NA	NA	NA	455.49	454.95	3.70	456.50

Notes:

ft = Feet
NA = Not available (not installed or abandoned/replaced)
nm = Not measured
1 = Construction diagram notes use of pre-packed stainless steel screen
2 = Construction diagram text and graphical representation differ on construction details. Graphical representation used to infer elevations
3 = Construction diagram notes presence of sedimentation sump below screened interval
Horizontal and vertical coordinates converted to Arkansas State Plane, North Zone (NAD83) and North American Vertical Datum of 1988 (NAVD88) based on in historic site file. Casing elevations for ITMW-1 through ITMW-21 and MW-22 extracted from 2011/2012 Annual Ground Water Monitoring Report dated June 28, 2012. information provided
Casing elevations for remaining wells extracted from survey data provided by Philip J. Leraris, PE, LS, dated May 12, 2009.
IW-129, IW-130, IW-131, and MW-81 to MW-99 surveyed during 2014.
Well screen intervals and depths adapted from monitoring well construction diagrams.

TABLE 4
SUMMARY OF FINAL WELL GROUNDWATER FIELD PARAMETERS MEASUREMENTS (Janurary 2016)
Whirlpool Facility - Fort Smith, Arkansas

Location	Well Casing Diameter (in)	Date Sampled	Water Level prior to Purging (ft btoc)	Total Depth of Well Casing (ft)	Set Tubing Depth (ft)	Time Sampled	Water Level after Purging (ft btoc)	Purge Volume (Gallons)	Purge Rate (ml/min)	Temperature (^{o}C)	Specific Conductivity (µS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTUs)	Ferrous Iron (mg/L)	Persulfate (mg/L)	Color
ITMW-1	4	11/10/2016	17.97	34.05	28.87	09:00	18.03	1.8	100	17.78	471	0.37	6.00	167.6	1.72	0.00	NM	Clear
ITMW-2	4	11/9/2016	12.92	27.00	22.00	11:25	12.97	1.2	100	22.86	580	0.2	5.91	174.6	2.98	0.09	NM	Clear
ITMW-3^	4	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
ITMW-4	4	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
ITMW-5	4	11/10/2016	19.07	39.29	34.30	10:45	19.21	1.4	100	20.68	659	0.18	5.88	144.5	1.32	0.05	NM	Clear
ITMW-6	4	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
ITMW-7	4	11/10/2016	21.08	36.98	32.00	09:10	21.14	1.4	100	19.34	943	0.27	5.04	255.9	1.02	0.00	NM	Clear
ITMW-9	4	11/8/2016	22.01	34.95	30.00	16:00	22.05	2.5	100	22.58	634	0.57	5.07	120.6	1.83	0.00	NM	Clear
ITMW-10	4	11/10/2016	22.98	36.82	31.00	10:37	23.06	1.8	100	19.43	972	2.15	6.09	194.3	1.48	0.00	NM	Clear
ITMW-11	4	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
ITMW-12	4	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
ITMW-13	4	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
ITMW-14	4	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
ITMW-15	4	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
ITMW-16	4	11/9/2016	18.43	34.18	30.00	16:16	18.84	1.2	100	23.39	179	0.21	6.47	-29.3	5.68	3.21	NM	Clear
ITMW-17	4	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
ITMW-18	4	11/9/2016	11.28	29.50	24.50	13:05	11.33	1.2	100	20.59	6776	0.37	4.87	452.1	1.72	0.09	2100	Clear
ITMW-19	4	11/9/2016	13.85	33.28	18.20	15:10	14.08	1.0	100	20.82	14211	7.97	6.08	429.3	0.27	0.55	7000	Clear
ITMW-20	4	11/9/2016	15.12	31.03	26.00	11:05	15.53	1.5	80	22.81	486	0.76	5.63	148.6	0.95	0.00	NM	Clear
ITMW-21	4	11/9/2016	13.90	32.99	28.00	16:32	14.21	1.4	100	21.74	2685	0.42	4.74	239.5	2.75	0.00	NM	Clear
MW-22	4	11/8/2016	12.40	29.20	24.00	13:16	12.45	1.0	100	23.43	104	9.10	5.34	157	1.8	0.00	NM	Clear
MW-23	4	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-24	4	11/8/2016	13.65	32.51	27.50	16:35	13.69	1.5	100	23.64	5965	0.23	4.10	514.1	2.37	0.03	NM	Clear
MW-25	4	11/9/2016	13.80	34.60	29.50	13:40	13.8	3.0	100	25.34	5573	0.21	5.98	448	3.78	0.00	700	Slight Yellow
MW-26	4	11/9/2016	15.12	35.14	30.00	13:06	15.21	1.5	100	22.41	1277	0.98	5.12	179.1	0.66	0.00	NM	Clear
MW-27	2	11/9/2016	12.85	30.14	25.00	14:40	12.88	1.70	100	23.70	224.00	0.52	5.61	145.30	12.90	0.00	NM	Clear
MW-28	2	11/9/2016	8.11	27.45	19.50	10:15	8.35	1.9	100	23.28	329	0.20	6.35	67.8	0.99	0.00	NM	Clear
MW-29	2	11/9/2016	13.15	30.32	25.00	09:20	13.25	1.5	100	20.74	636	1.32	4.90	237.2	2.19	0.00	NM	Clear
MW-30^	4	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-31R	2	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-32R	2	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-33R	2	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-34R	2	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-35R	2	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-36R	2	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-37^	2	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-38	2	11/10/2016	12.12	29.83	23.83	12:05	22.38	1.0	100	22.38	536	0.27	6.56	20.8	0.6	3.30	NM	Clear
MW-39R	2	11/7/2016	11.87	29.69	24.70	16:18	11.97	1.0	80	18.99	1141	3.57	5.41	98.8	6.24	0.00	NM	Clear
MW-40R	2	11/7/2016	10.38	28.30	23.30	16:35	10.43	1.0	100	20.88	1681	0.21	5.75	9.4	3.81	3.30	NM	Clear
MW-41R	2	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-46R	2	11/8/2016	3.54	21.51	16.34	13:50	4.75	1.5	90	24.19	843	7.13	5.03	194.4	2.64	0.00	NM	Clear
MW-50R	2	11/7/2016	8.90	18.24	16.00	16:45	9.68	1.0	100	20.28	1013	1.16	6.48	0.9	0.29	0.11	NM	Cloudy
MW-55R	2	11/7/2016	3.01	20.96	15.96	15:03	3.69	1.0	80	19.24	593	2.53	5.92	89.9	2.52	0.00	NM	Clear
MW-56R	2	11/8/2016	4.25	19.79	18.80	09:25	5.23	1.2	100	19.79	854	0.22	6.12	36.0	5.24	0.91	NM	Clear
MW-57R	2	11/8/2016	4.38	19.35	16.90	10:35	5.69	1.2	100	20.57	830	0.14	5.45	-13.5	4.1	2.43	NM	Clear
MW-58R	2	11/10/2016	4.6	21.88	19.40	09:25	5.4	4.0	100	18.00	1493	0.41	5.43	84.70	1.67	3.30	NM	Clear
MW-60R	2	11/8/2016	2.85	15.28	12.28	12:50	5.9	2.0	100	22.65	1280	1.08	6.94	11.1	4.3	0.00	NM	Clear
MW-61R	2	11/7/2016	7.60	15.28	12.50	15:57	8.71	1.5	100	21.34	1063	0.63	7.67	-170.5	22.4	3.30	NM	Light Brown
MW-62R	2	11/7/2016	5.68	20.01	17.50	13:15	6.74	0.92	100	20.26	1223	0.50	5.82	127.7	6.09	0.14	NM	Clear
MW-63R	2	11/7/2016	3.93	19.72	17.25	15:15	8.07	1.6	100	19.61	1132	0.17	5.68	169.2	13.80	0.04	NM	Clear

TABLE 4
SUMMARY OF FINAL WELL GROUNDWATER FIELD PARAMETERS MEASUREMENTS (Janurary 2016)
Whirlpool Facility - Fort Smith, Arkansas

Location	Well Casing Diameter (in)	Date Sampled	Water Level prior to Purging (ft btoc)	Total Depth of Well Casing (ft)	Set Tubing Depth (ft)	Time Sampled	Water Level after Purging (ft btoc)	Purge Volume (Gallons)	Purge Rate (ml/min)	Temperature (°C)	Specific Conductivity (µS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTUs)	Ferrous Iron (mg/L)	Persulfate (mg/L)	Color
MW-65	2	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-66	2	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-67R	2	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-68	2	11/7/2016	7.15	20.35	15.05	14:00	7.23	1	90	19.42	1074	2.38	5.33	125.5	2.78	0.00	NM	Clear
MW-70^	2	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-71	2	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
RW-69	4	11/9/2016	8.83	28.71	23.00	10:25	8.83	3.0	100	22.13	906	0.35	5.17	157.4	3.48	0.00	NM	Clear
IW-72	2	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
IW-73	2	11/9/2016	9.99	26.82	21.82	11:26	9.98	1.0	100	21.10	995	0.26	5.68	81.2	1.53	1.14	NM	Clear
IW-74	2	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
IW-75^	2	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
IW-76	2	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
IW-77	2	11/8/2016	10.28	28.70	23.70	09:29	10.36	1.5	80	19.96	3814	4.50	9.34	323.4	NM	0.00	8.40	Clear
IW-78	2	11/8/2016	10.80	29.00	24.00	11:37	10.85	1.50	90	23.11	5536	5.74	6.40	363.4	9.86	0.00	1260.00	Clear
IW-79	2	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
IW-80	2	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-81	2	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-82	2	11/9/2016	11.10	25.98	23.30	09:36	11.21	1.9	100	20.86	3365	0.22	5.11	465.9	10.05	0.09	100	Clear
MW-83	2	11/9/2016	15.02	26.77	23.03	14:22	15.02	0.75	100	24.42	4300	1.12	6.59	406.3	16.90	3.19	500	Clear
MW-84	2	11/9/2016	13.25	25.19	24.00	12:24	13.30	2.2	100	24.95	10340	4.21	6.98	418.5	2.23	0.00	700	Clear
MW-85	2	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-86	2	11/9/2016	10.78	27.78	15.00	15:50	10.78	3.0	100	23.55	6123	0.41	5.75	258.2	4.12	0.02	0	Clear
MW-87	2	11/8/2016	11.60	26.84	21.70	17:00	11.74	1.0	100	23.23	419	0.17	5.85	78.7	13.65	0.05	NM	Clear
MW-88	2	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-89	2	11/8/2016	9.84	25.08	20.08	15:15	10.81	1.8	100	24.64	1019	0.20	5.39	86.4	1.64	0.00	NM	Clear
MW-90	2	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-91	2	11/10/2016	11.51	25.70	20.70	09:05	11.64	1.3	100	20.42	330	0.75	6.26	157.9	5.73	0.00	NM	Clear
MW-92	2	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-93	2	11/9/2016	15.37	34.21	29.21	15:30	15.43	1.0	100	20.87	806	0.98	5.33	89.4	1.21	0.00	NM	Clear
MW-94	2	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-95	2	11/9/2016	15.29	34.14	29.14	14:05	15.45	1.0	100	21.07	1223	0.36	5.36	88.4	1.57	0.06	NM	Clear
MW-96	2	11/8/2016	8.62	14.53	12.00	10:15	8.79	1.6	100	23.03	388	0.29	5.64	88.5	2.17	2.48	NM	Clear
MW-97	2	11/8/2016	9.04	15.20	12.80	11:25	11.28	1.0	100	24.11	447	2.30	6.02	127.7	5.21	0.20	NM	Clear
MW-98	2	11/8/2016	11.99	19.65	17.15	13:15	15.46	1.3	100	24.20	360	0.62	6.26	96.3	2.45	0.59	NM	Clear
MW-99	2	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
IW-101	2	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
IW-115	2	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-172	2	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-173	2	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-174	2	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-175	2	11/8/2016	2.18	14.51	14.00	12:40	9.58	1.7	75	22.57	3009	0.68	11.85	-106.2	1.36	1.88	NM	Clear
MW-176	2	11/8/2016	3.00	14.00	13.50	14:55	4.65	1.7	100	20.86	981	0.62	6.41	-46.6	4.01	0.12	NM	Clear
MW-177	2	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-178	2	11/10/2016	5.29	7.97	7.50	10:36	7.90	0.85	100	26.02	307	1.24	7.4	242.1	1637(AU)	NM	NM	Brown/Turbid
MW-179	2	11/9/2016	8.68	12.79	12.25	---	12.60	0.85	100	25.22	119	2.59	6.42	300.1	49.5	NM	NM	Turbid
MW-180	2	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-181	2	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-182	2	11/9/2016	15.40	31.09	26.10	15:25	15.44	1.1	100	18.92	949	0.19	5.66	211.5	3.38	0.00	NM	Clear

TABLE 4
SUMMARY OF FINAL WELL GROUNDWATER FIELD PARAMETERS MEASUREMENTS (Janurary 2016)
Whirlpool Facility - Fort Smith, Arkansas

Location	Well Casing Diameter (in)	Date Sampled	Water Level prior to Purging (ft btoc)	Total Depth of Well Casing (ft)	Set Tubing Depth (ft)	Time Sampled	Water Level after Purging (ft btoc)	Purge Volume (Gallons)	Purge Rate (ml/min)	Temperature (^{o}C)	Specific Conductivity (µS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTUs)	Ferrous Iron (mg/L)	Persulfate (mg/L)	Color
MW-183	2	11/9/2016	12.30	18.59	16.00	08:20	14.38	1.6	100	22.35	213	0.52	6.11	165.7	5.00	0.00	NM	Clear
MW-184	2	11/8/2016	9.14	23.55	18.50	08:25	9.97	1.0	100	19.80	271	0.33	6.2	146.5	8.07	0.12	NM	Clear
MW-185	2	11/8/2016	14.56	29.28	24.30	16:40	14.57	1.0	100	25.13	233	6.62	6.24	115.1	2.62	0.00	NM	Clear
MW-186	2	11/7/2016	14.00	27.80	23.80	14:10	14.33	1.3	100	18.26	749	0.29	6.02	167.8	5.47	0.00	NM	Clear
MW-187	2	11/9/2016	20.14	30.25	25.30	12:45	20.21	1.2	100	19.70	634	0.15	6.01	174.5	6.14	0.06	NM	Clear
MW-188	2	11/9/2016	21.64	34.58	29.60	14:05	21.76	1.3	100	20.80	806	0.25	6.16	166.7	10.5	0.01	NM	Clear
MW-189	2	11/7/2016	25.58	40.85	35.90	16:55	25.60	1.3	100	20.44	605	0.22	6.01	145.8	2.45	0.02	NM	Clear
MW-190	2	11/8/2016	21.42	36.10	31.10	15:15	21.6	1.6	100	24.03	3446	2.41	11.75	15.3	12.8	0.75	NM	Slightly Cloudy
MW-191	2	11/8/2016	16.96	33.20	33.60	16:35	16.98	1.2	100	23.35	291	0.78	6.24	168.6	3.33	0.00	NM	Clear
MW-192	2	11/9/2016	15.82	30.19	27.50	09:35	15.82	1.0	100	21.59	196	0.27	5.18	239.30	2.83	0.00	NM	Clear
MW-193	2	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-194	2	11/7/2016	5.3	21.3	16.3	15:40	5.44	1.6	100	20.88	696	0.18	5.93	173.2	1800(AU)	1.44	NM	Light Brown
MW-195	2	11/9/2016	2.75	17.2	14.7	09:45	6.09	1	75	22.23	980	2.03	7.11	54.9	5.88	0.27	NM	Clear
MW-196	2	11/9/2016	3.57	15	12.5	11:15	7.96	1	75	24.52	1812	2.65	7.08	51.9	2.88	0.2	NM	Clear
TMW-10	2	11/8/2016	4.61	15.19	12.45	09:17	5.12	2	100	20.32	892	0.5	6.31	187	3.66	0.67	NM	Clear
TMW-11	2	11/8/2016	3.75	15.13	12.5	09:27	5.98	1.75	100	20.65	2153	0.17	7.36	-99.5	17.5	3.3	NM	Very Light Brown Hue

Notes:

ft btoc = Feet below top of casing
in = Inches
ORP = Oxidation reduction potential
DO = Dissolved oxygen
(^{o}C) = Degrees Celcius
mV = Millivolts
^ = Well not sampled
mL/min = Milliliters per minute
mg/L = Milligrams per liter
NTUs = Nephelometric turbidity units
NM = Not measured
(µS/cm) = Microsiemens per centimeter
-- = Color not noted

All wells gauged using electronic water level meter and purged using peristaltic pumps.
Tubing inlet depths based on estimated distance from total depth.

TABLE 5
SUMMARY OF VERTICAL HYDRAULIC GRADIENT
Whirlpool Facility - Fort Smith, Arkansas

Location/ Well Pairs	Middle of Screen Elevation[1] (ft)						Static Water Level Elevation (ft)						Vertical Hydraulic Gradient[2] (ft/ft)					
	4/13/2015	7/20/2015	10/5/2015	1/6/2016	5/2/2016	11/7/2016	4/13/2015	7/20/2015	10/5/2015	1/6/2016	5/2/2016	11/7/2016	4/13/2015	7/20/2015	10/5/2015	1/6/2016	5/2/2016	11/7/2016
Shallow Well MW-177																		
MW-177	462.00	462.00	462.00	462.00	462.00	462.00	466.94	469.09	465.34	469.97	469.00	465.19						
MW-70	451.53	451.53	451.53	451.53	451.53	451.53	464.17	465.33	465.15	464.77	464.59	462.70						
MW-177/MW-70													-0.26	-0.36	-0.02	-0.50	-0.42	-0.24
Shallow Well MW-176																		
MW-176	451.74	451.74	451.74	451.74	451.74	451.74	463.81	464.66	464.49	464.38	464.18	462.30						
MW-46R	446.69	446.69	446.69	446.69	446.69	446.69	462.85	464.88	464.67	464.40	464.21	462.34						
MW-176/MW-46R													-0.19	0.04	0.04	0.004	0.005	0.01
Shallow Well MW-175																		
MW-175	450.17	450.17	450.17	450.17	450.17	450.17	460.25	463.71	463.47	463.37	463.42	462.22						
Ave. of MW-46R & MW-56/56R	446.46	445.43	445.43	445.43	445.43	445.43	461.54	463.68	463.15	463.26	463.21	460.68						
MW-175/Ave. of MW-46R & MW-56/56R													0.35	-0.007	-0.07	-0.02	-0.04	-0.32
Shallow Wells MW-173 and MW-174																		
MW-174	451.95	451.95	451.95	451.95	451.95	451.95	457.67	459.92	461.75	459.71	460.01	459.77						
MW-63/MW-63R	445.37	446.44	446.44	446.44	446.44	446.44	459.36	462.29	462.08	460.93	460.79	460.05						
MW-174/MW-63													0.26	0.43	0.06	0.22	0.14	0.05
Shallow Wells MW-178, MW-179 and MW-180																		
MW-178	467.90	467.90	467.90	467.90	467.90	467.90	472.29	471.94	471.48	471.93	472.05	470.38						
MW-83	450.98	450.98	450.98	450.98	450.98	450.98	464.02	465.25	465.01	464.72	464.47	462.64						
MW-178/MW-83													-0.49	-0.40	-0.38	-0.43	-0.45	-0.46

Notes:
ft = Feet
[1] MW-56R and MW-63R were installed in June 2015
[2] Negative gradient indicates downward gradient
[3] Reference elevations used in vertical gradient calculations were changed from ground surface to top of casing for the First Quarter 2016 Annual Groundwater Monitoring Report.

TABLE 6
SUMMARY OF MONITORING WELL GROUNDWATER SAMPLE ANALYTICAL RESULTS
(ANNUAL 2016)
Whirlpool Facility - Fort Smith, Arkansas

Location		ITMW-1	ITMW-1	ITMW-5	ITMW-5	ITMW-7	ITMW-9	ITMW-9	ITMW-10	ITMW-18	ITMW-19	ITMW-21
Field Sample ID		ITMW-1-201611	DUP-04-201611	ITMW-5-201611	DUP-06-201611	ITMW-7-201611	ITMW-9-201611	ITMW-9-201612	ITMW-10-201611	ITMW-18-201611	ITMW-19-201611	ITMW-21-201611
Lab Sample ID	Remedial Action Levels per ADEQ RADD Issued Dec 2013	60232090010	60232090012	60232090002	60232090003	60232090004	60231848025, 209510006, 037NK06	60234409001	60232090011	60231925011	60231925012	60231925010
Sample Date		Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	12/14/2016	Low Flow	Low Flow	Low Flow	Low Flow
Sample Method		11/10/2016	11/10/2016	11/10/2016	11/10/2016	11/10/2016	11/08/2016	Low Flow	11/10/2016	11/09/2016	11/09/2016	11/09/2016
Comments			Field Duplicate		Field Duplicate							
Volatile Organic Compounds												
Acetone	12000	U (1.9)	U (1.9)	U (1.9)	U (1.9)	U (1.9)	U (1.9)	U (1.9)	U (1.9)	U (1.9)	U (1.9)	U (1.9)
Benzene	5.0	U (0.060)	U (0.060)	0.10 J (0.060)	U (0.060)	0.099 J (0.060)	U (0.060)	0.23 J (0.060)	U (0.060)	U (0.060)	U (0.060)	U (0.060)
Bromodichloromethane	80	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)
Bromoform	80	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	0.98 J (0.070)	0.93 J (0.070)	U (0.070)
Bromomethane	7.0	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	12.4 (0.16)	1.6 J (0.16)	U (0.16)
2-Butanone	4900	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)
Carbon Disulfide	720	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)
Carbon Tetrachloride	5	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)
Chlorobenzene	100	U (0.21)	U (0.21)	U (0.21)	U (0.21)	1.6 (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)
Chloroethane	12000	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)
Chloroform	80	U (0.14)	U (0.14)	0.28 J (0.14)	0.34 J (0.14)	U (0.14)	0.36 J (0.14)	0.21 J (0.14)	0.15 J (0.14)	0.27 J (0.14)	0.50 J (0.14)	U (0.14)
Chloromethane	190	U (0.080)	U (0.080)	U (0.080)	U (0.080)	U (0.080)	U (0.080)	U (0.080)	U (0.080)	7.8 (0.080)	1.5 (0.080)	U (0.080)
Dibromochloromethane	80	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)
1,1-Dichloroethane	2.4	0.41 J (0.050)	0.39 J (0.050)	1.7 (0.050)	1.9 (0.050)	U (0.050)	U (0.050)	1.8 (0.050)	1.1 (0.050)	U (0.050)	U (0.050)	U (0.050)
1,2-Dichloroethane	5.0	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)
1,1-Dichloroethene	7.0	U (0.20)	U (0.20)	4.6 (0.20)	4.5 (0.20)	U (0.20)	0.48 J (0.20)	2.2 (0.20)	1.2 (0.20)	0.24 J (0.20)	U (0.20)	U (0.20)
cis-1,2-Dichloroethene	70	3.1 (0.080)	3.4 (0.080)	38.9 (0.080)	33.5 (0.080)	10 (0.080)	73.0 J (0.080)	40.1 (0.080)	12.5 (0.080)	U (0.080)	U (0.080)	U (0.080)
trans-1,2-Dichloroethene	100	U (0.20)	U (0.20)	0.39 J (0.20)	0.31 J (0.20)	U (0.20)	0.88 J (0.20)	0.84 J (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)
Ethyl Benzene	700	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)
2-Hexanone	34	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)
4-Methyl-2-pentanone	1000	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)
Methylene Chloride	5.0	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	0.24 J (0.15)	0.60 J (0.15)	U (0.15)	0.37 J (0.15)	U (0.15)	U (0.15)
1,1,2,2-Tetrachloroethane	0.066	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	0.41 J (0.15)	U (0.15)
Tetrachloroethene	5.0	0.16 J (0.10)	U (0.10)	0.99 J (0.10)	0.89 J (0.10)	U (0.10)	U (0.10)	0.47 J (0.10)	0.29 J (0.10)	U (0.10)	0.19 J (0.10)	U (0.10)
Toluene	1000	U (0.17)	U (0.17)	U (0.17)	U (0.17)	U (0.17)	U (0.17)	U (0.17)	U (0.17)	U (0.17)	U (0.17)	U (0.17)
1,1,1-Trichloroethane	200	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)
1,1,2-Trichloroethane	5.0	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)
Trichloroethene	5.0	7.6 (0.17)	7.0 (0.17)	507 (1.7)	441 (1.7)	33.2 (0.17)	2550 (8.5)	193 (0.17)	113 (0.17)	10.1 (0.17)	137 (0.17)	8.1 (0.17)
Vinyl Chloride	2.0	U (0.13)	U (0.13)	2.8 J (0.13)	1.5 J (0.13)	0.26 J (0.13)	0.17 J (0.13)	1 (0.13)	0.52 J (0.13)	U (0.13)	U (0.13)	U (0.13)
Metals												
Iron	NE	NM	NM	NM	NM	NM	22.7 J (50.0)	NM	NM	NM	NM	NM
Manganese	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Monitored Natural Attenuation Parameters												
Acetylene	NE	NM	NM	NM	NM	NM	U (0.50)	NM	NM	NM	NM	NM
Total Alkalinity	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Ammonia	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Bicarbonate Alkalinity	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Organic Carbon (total)	NE	NM	NM	NM	NM	NM	500 JB (1000)	NM	NM	NM	NM	NM
Carbonate Alkalinity	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Chloride	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Iron, Ferric	NE	NM	NM	NM	NM	NM	U (200)	NM	NM	NM	NM	NM
Nitrogen, Nitrate (As N)	NE	NM	NM	NM	NM	NM	12400 M1 (500)	NM	NM	NM	NM	NM
Nitrogen, Nitrite	NE	NM	NM	NM	NM	NM	U (500)	NM	NM	NM	NM	NM
Phosphates (total)	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Sulfide (total)	NE	NM	NM	NM	NM	NM	U (50)	NM	NM	NM	NM	NM
Sulfate	NE	NM	NM	NM	NM	NM	19700 (1000)	NM	NM	NM	NM	NM
Gases												
Methane	NE	NM	NM	NM	NM	NM	3.8 (0.50)	NM	NM	NM	NM	NM
Ethane	NE	NM	NM	NM	NM	NM	U (0.10)	NM	NM	NM	NM	NM
Ethene	NE	NM	NM	NM	NM	NM	U (0.10)	NM	NM	NM	NM	NM
Hydrogen (H2) [nM][4*]	NE	NM	NM	NM	NM	NM	2.4 (0.60)	NM	NM	NM	NM	NM
Molecular Analyses												
BAV1 Vinyl Chloride Reductase [cells/mL]	NE	NM	NM	NM	NM	NM	U (0.5)	NM	NM	NM	NM	NM
Dehalocaccoides (DHC) [cells/mL]	NE	NM	NM	NM	NM	NM	U (0.5)	NM	NM	NM	NM	NM
tceA Reductase [cells/mL]	NE	NM	NM	NM	NM	NM	U (0.5)	NM	NM	NM	NM	NM
Vinyl Chloride Reductase (vrcA) [cells/mL]	NE	NM	NM	NM	NM	NM	U (0.5)	NM	NM	NM	NM	NM

Notes:

1 = All concentrations are
2 = Only compounds with at least one detection are shown, with the exception of Monitored Natural Attenuation Parameters, for which all compounds are shown.
3 = Concentrations that exceed the Remedial Action Levels per ADEQ RADD Issued Dec 2013 are
4 = Concentration presented in nM = nanomolar. Sampling Method - Bubble Strip.

U = Not detected
M1 = Lab matrix spike exceeded QC limits
J '=Estimated concentration
d '=The analyte concentration was determined from a dilution.
B = Analyte was detected in the associated method
( ) blank
* = Sampled on different day than other parameters with different method

RADD = Remedial action
ADEQ = Arkansas Department of Environmental Quality
µg/L = Micrograms per Liter
NE = Not established
NM = Not measured

Onsite Wells
Offsite Wells
Plume Boundary Wells

RAMBOLL ENVIRON

TABLE 6
SUMMARY OF MONITORING WELL GROUNDWATER SAMPLE ANALYTICAL RESULTS
(ANNUAL 2016)
Whirlpool Facility - Fort Smith, Arkansas

Location		MW-25	MW-38	MW-83	MW-84	MW-86	MW-87	MW-87	MW-89	MW-91	MW-91	MW-93
Field Sample ID		MW-25-201611	MW-38-201611	MW-83-201611	MW-84-201611	MW-86-201611	MW-87-201611	DUP-05-201611	MW-89-201611	MW-91-201611	DUP-03-201611	MW-93-201611
Lab Sample ID	Remedial Action Levels per ADEQ RADD Issued Dec 2013	60231925024, 209510011, 037NK010	60232090009, 209510013, 037NK013	60231925022	60231925019	60231925023, 209510012, 037NK011	60231848013, 209510004, 037NK01	60231848016	60231848014, 209510005, 037NK02	60232090006	60232090007	60231925002
Sample Date		Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow
Sample Method		11/09/2016	11/10/2016	11/09/2016	11/09/2016	11/09/2016	11/08/2016	11/08/2016	11/08/2016	11/10/2016	11/10/2016	11/09/2016
Comments								Field Duplicate			Field Duplicate	
Volatile Organic Compounds												
Acetone	12000	109 (1.9)	U (1.9)	U (1.9)	U (1.9)	47.2 (1.9)	U (1.9)	U (1.9)	U (1.9)	U (1.9)	U (1.9)	U (1.9)
Benzene	5.0	0.41 J (0.060)	0.20 J (0.060)	U (0.060)	U (0.060)	0.33 J (0.060)	0.12 J (0.060)	0.11 J (0.060)	U (0.060)	U (0.060)	U (0.060)	U (0.060)
Bromodichloromethane	80	1.3 (0.19)	U (0.19)	U (0.19)	U (0.19)	2.8 (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)
Bromoform	80	6.1 (0.070)	U (0.070)	3.4 (0.070)	7.4 (0.070)	5.6 (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)
Bromomethane	7.0	10.3 J (0.16)	U (0.16)	1.1 J (0.16)	2.0 J (0.16)	2.8 J (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)
2-Butanone	4900	8.6 J (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)
Carbon Disulfide	720	U (0.12)	U (0.12)	U (0.12)	U (0.12)	2.6 J (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)
Carbon Tetrachloride	5	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	0.24 J (0.18)
Chlorobenzene	100	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)
Chloroethane	12000	U (0.15)	0.38 J (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)
Chloroform	80	23.1 (0.14)	0.30 J (0.14)	U (0.14)	0.28 J (0.14)	29.4 (0.14)	0.32 J (0.14)	0.36 J (0.14)	U (0.14)	0.30 J (0.14)	0.26 J (0.14)	3.6 (0.14)
Chloromethane	190	43.1 (0.080)	U (0.080)	2.5 (0.080)	3.6 (0.080)	1.5 (0.080)	U (0.080)	U (0.080)	U (0.080)	U (0.080)	U (0.080)	U (0.080)
Dibromochloromethane	80	0.77 J (0.21)	U (0.21)	U (0.21)	0.36 J (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)
1,1-Dichloroethane	2.4	4.5 (0.050)	U (0.050)	U (0.050)	U (0.050)	5.6 (0.050)	2.3 (0.050)	2.2 (0.050)	U (0.050)	1.9 (0.050)	1.5 (0.050)	0.25 J (0.050)
1,2-Dichloroethane	5.0	1.1 (0.12)	U (0.12)	U (0.12)	U (0.12)	0.51 J (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)
1,1-Dichloroethene	7.0	18.2 (0.20)	19.9 (0.20)	U (0.20)	U (0.20)	27.9 J (0.20)	6.2 (0.20)	6.4 (0.20)	U (0.20)	5.5 (0.20)	4.7 (0.20)	16.3 J (0.20)
cis-1,2-Dichloroethene	70	509 J (80.0)	1070 (4.0)	U (0.080)	U (0.080)	U (80.0)	51.9 (0.080)	49.0 (0.080)	U (0.080)	41.6 (0.080)	40.6 (0.080)	98.8 (0.080)
trans-1,2-Dichloroethene	100	167 (0.20)	17.8 (0.20)	U (0.20)	U (0.20)	58.4 (0.20)	0.96 J (0.20)	0.86 J (0.20)	U (0.20)	0.62 J (0.20)	0.57 J (0.20)	2.1 (0.20)
Ethyl Benzene	700	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)
2-Hexanone	34	U (1.2)	U (1.2)	U (1.2)	U (1.2)	1.6 J (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)
4-Methyl-2-pentanone	1000	3.1 J (0.42)	U (0.42)	U (0.42)	U (0.42)	0.56 J (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)
Methylene Chloride	5.0	13.3 (0.15)	U (0.15)	U (0.15)	U (0.15)	7.7 (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)
1,1,2,2-Tetrachloroethane	0.066	97.0 (0.15)	U (0.15)	U (0.15)	U (0.15)	222 J (150)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)
Tetrachloroethene	5.0	16.8 (0.10)	0.81 J (0.10)	U (0.10)	U (0.10)	28.5 (0.10)	4.7 (0.10)	5.1 (0.10)	U (0.10)	1.6 (0.10)	2.1 (0.10)	4.2 (0.10)
Toluene	1000	1.0 (0.17)	0.43 J (0.17)	U (0.17)	U (0.17)	2.8 (0.17)	U (0.17)	U (0.17)	U (0.17)	U (0.17)	U (0.17)	0.30 J (0.17)
1,1,1-Trichloroethane	200	7.6 (0.11)	U (0.11)	U (0.11)	U (0.11)	195 J (110)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	0.18 J (0.11)
1,1,2-Trichloroethane	5.0	1.9 (0.20)	U (0.20)	U (0.20)	U (0.20)	3.7 J (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	0.97 J (0.20)
Trichloroethene	5.0	36900 (170)	2860 (8.5)	0.63 J (0.17)	U (0.17)	75100 (170)	701 J (3.4)	948 J (1.7)	13.4 (0.17)	574 (1.7)	599 (1.7)	18300 (34.0)
Vinyl Chloride	2.0	U (130)	597 (6.5)	U (0.13)	U (0.13)	65.4 J (0.13)	0.25 J (0.13)	0.39 J (0.13)	U (0.13)	0.36 J (0.13)	0.38 J (0.13)	0.93 J (0.13)
Metals												
Iron	NE	1380 (50.0)	6040 (50.0)	NM	NM	2600 (50.0)	507 (50.0)	NM	40.4 J (50.0)	NM	NM	NM
Manganese	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Monitored Natural Attenuation Parameters												
Acetylene	NE	1.1 (0.50)	U (0.50)	NM	NM	2.2 (0.50)	U (0.50)	NM	U (0.50)	NM	NM	NM
Total Alkalinity	NE	NM	186000 (20000)	NM	NM	NM	NM	NM	NM	NM	NM	NM
Ammonia	NE	NM	240 (100)	NM	NM	NM	NM	NM	NM	NM	NM	NM
Bicarbonate Alkalinity	NE	NM	186000 (20000)	NM	NM	NM	NM	NM	NM	NM	NM	NM
Organic Carbon (total)	NE	3100 (1000)	2900 (1000)	NM	NM	6800 (1000)	800 JB (1000)	NM	1900 (1000)	NM	NM	NM
Carbonate Alkalinity	NE	NM	U (20000)	NM	NM	NM	NM	NM	NM	NM	NM	NM
Chloride	NE	NM	23800 (2000)	NM	NM	NM	NM	NM	NM	NM	NM	NM
Iron, Ferric	NE	NM	NM	NM	NM	NM	460 (200)	NM	U (200)	NM	NM	NM
Nitrogen, Nitrate (As N)	NE	540 (100)	NM	NM	NM	860 (100)	3000 (100)	NM	108000 (5000)	NM	NM	NM
Nitrogen, Nitrite	NE	U (100)	NM	NM	NM	120 (100)	U (100)	NM	U (5000)	NM	NM	NM
Phosphates (total)	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Sulfide (total)	NE	U (50)	U (50)	NM	NM	U (50)	U (50)	NM	U (50)	NM	NM	NM
Sulfate	NE	2000000 (200000)	28200 (2000)	NM	NM	2590000 (200000)	15300 (1000)	NM	12700 (1000)	NM	NM	NM
Gases												
Methane	NE	62 (0.50)	29 (0.50)	NM	NM	41 (0.50)	0.97 (0.50)	NM	7.9 (0.50)	NM	NM	NM
Ethane	NE	8.8 (0.10)	0.80 (0.10)	NM	NM	2.5 (0.10)	U (0.10)	NM	U (0.10)	NM	NM	NM
Ethene	NE	0.21 (0.10)	23 (0.10)	NM	NM	1.6 (0.10)	0.11 (0.10)	NM	0.13 (0.10)	NM	NM	NM
Hydrogen (H2) [nM][4*]	NE	550 (12)	1.6 (0.60)	NM	NM	410 (12)	1.6 (0.60)	NM	2.0 (0.60)	NM	NM	NM
Molecular Analyses												
BAV1 Vinyl Chloride Reductase [cells/mL]	NE	U (0.5)	450 (0.5)	NM	NM	U (0.5)	U (0.5)	NM	28.1 (0.5)	NM	NM	NM
Dehalococcoides (DHC) [cells/mL]	NE	U (0.5)	1130 (0.5)	NM	NM	U (0.5)	12 (0.5)	NM	126 (0.5)	NM	NM	NM
tceA Reductase [cells/mL]	NE	U (0.5)	U (0.5)	NM	NM	U (0.5)	U (0.5)	NM	4.2 (0.5)	NM	NM	NM
Vinyl Chloride Reductase (vrcA) [cells/mL]	NE	U (0.5)	U (0.5)	NM	NM	U (0.5)	1 (0.5)	NM	2.6 (0.5)	NM	NM	NM

Notes:

1 = All concentrations are
2 = Only compounds with at least one detection are shown, with the exception of Monitored Natural Attenuation Parameters, for which all compounds are shown.
3 = Concentrations that exceed the Remedial Action Levels per ADEQ RADD Issued Dec 2013 are
4 = Concentration presented in nM = nanomolar. Sampling Method - Bubble Strip.

U = Not detected
M1 = Lab matrix spike exceeded QC limits
J '=Estimated concentration
d '=The analyte concentration was determined from a dilution.
B = Analyte was detected in the associated method
( ) blank
* = Sampled on different day than other parameters with different method

RADD = Remedial action
ADEQ = Arkansas Department of Environmental Quality
µg/L = Micrograms per Liter
NE = Not established
NM = Not measured

Onsite Wells
Offsite Wells
Plume Boundary Wells

RAMBOLL ENVIRON

TABLE 6
SUMMARY OF MONITORING WELL GROUNDWATER SAMPLE ANALYTICAL RESULTS
(ANNUAL 2016)
Whirlpool Facility - Fort Smith, Arkansas

Location		MW-95	MW-178	MW-182	MW-182	ITMW-2	ITMW-16	ITMW-20	MW-22	MW-24	MW-26	MW-27
Field Sample ID		MW-95-201611	MW-178-201611	MW-182-201611	DUP-02-201611	ITMW-2-201611	ITMW-16-201611	ITMW-20-201611	MW-22-201611	MW-24-201611	MW-26-201611	MW-27-201611
Lab Sample ID	Remedial Action Levels per ADEQ RADD Issued Dec 2013	60231925005, 209510008, 037NK08	60232090005	60231925028	60231925027	60231925016	60231925007	60231925015	60231848006	60231848007	60231925014	60231925008
Sample Date		Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow
Sample Method		11/09/2016	11/10/2016	11/09/2016	11/09/2016	11/09/2016	11/09/2016	11/09/2016	11/08/2016	11/08/2016	11/09/2016	11/09/2016
Comments					Field Duplicate							
Volatile Organic Compounds												
Acetone	12000	U (1.9)	U (1.9)	U (1.9)	U (1.9)	U (1.9)	U (1.9)	U (1.9)	U (1.9)	90.1 (1.9)	U (1.9)	U (1.9)
Benzene	5.0	0.11 J (0.060)	U (0.060)	U (0.060)	U (0.060)	0.13 J (0.060)	U (0.060)	U (0.060)	U (0.060)	U (0.060)	U (0.060)	U (0.060)
Bromodichloromethane	80	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	0.78 J (0.19)	U (0.19)	U (0.19)
Bromoform	80	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	59.2 (0.070)	U (0.070)	U (0.070)
Bromomethane	7.0	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	8.3 (0.16)	U (0.16)	U (0.16)
2-Butanone	4900	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)
Carbon Disulfide	720	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)
Carbon Tetrachloride	5	0.33 J (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)
Chlorobenzene	100	U (0.21)	U (0.21)	0.70 J (0.21)	0.91 J (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)
Chloroethane	12000	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)
Chloroform	80	5.0 (0.14)	U (0.14)	0.19 J (0.14)	0.14 J (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	0.16 J (0.14)	U (0.14)	U (0.14)
Chloromethane	190	U (0.080)	U (0.080)	U (0.080)	U (0.080)	U (0.080)	U (0.080)	U (0.080)	U (0.080)	13.6 (0.080)	U (0.080)	U (0.080)
Dibromochloromethane	80	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	2.5 (0.21)	U (0.21)	U (0.21)
1,1-Dichloroethane	2.4	0.48 J (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)
1,2-Dichloroethane	5.0	0.20 J (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)
1,1-Dichloroethene	7.0	33.4 J (0.20)	0.21 J (0.20)	0.20 J (0.20)	0.20 J (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)
cis-1,2-Dichloroethene	70	191 (0.080)	0.15 J (0.080)	14.6 (0.080)	15.5 (0.080)	U (0.080)	U (0.080)	U (0.080)	U (0.080)	U (0.080)	U (0.080)	U (0.080)
trans-1,2-Dichloroethene	100	1.4 (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)
Ethyl Benzene	700	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)
2-Hexanone	34	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)
4-Methyl-2-pentanone	1000	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)
Methylene Chloride	5.0	3.5 (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	0.24 J (0.15)	U (0.15)	U (0.15)
1,1,2,2-Tetrachloroethane	0.066	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)
Tetrachloroethene	5.0	6.4 (0.10)	U (0.10)	U (0.10)	U (0.10)	0.78 J (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)
Toluene	1000	U (0.17)	U (0.17)	U (0.17)	U (0.17)	U (0.17)	U (0.17)	U (0.17)	U (0.17)	U (0.17)	U (0.17)	U (0.17)
1,1,1-Trichloroethane	200	0.65 J (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)
1,1,2-Trichloroethane	5.0	1.7 (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)
Trichloroethene	5.0	28700 (34.0)	3.2 (0.17)	192 (0.85)	204 (0.85)	U (0.17)	U (0.17)	U (0.17)	U (0.17)	4.2 (0.17)	U (0.17)	U (0.17)
Vinyl Chloride	2.0	46.9 J (0.13)	U (0.13)	0.28 J (0.13)	0.20 J (0.13)	U (0.13)	U (0.13)	U (0.13)	U (0.13)	U (0.13)	U (0.13)	U (0.13)
Metals												
Iron	NE	161 (50.0)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Manganese	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Monitored Natural Attenuation Parameters												
Acetylene	NE	U (0.50)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Total Alkalinity	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Ammonia	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Bicarbonate Alkalinity	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Organic Carbon (total)	NE	250 JB (1000)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Carbonate Alkalinity	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Chloride	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Iron, Ferric	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Nitrogen, Nitrate (As N)	NE	1300 (100)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Nitrogen, Nitrite	NE	U (100)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Phosphates (total)	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Sulfide (total)	NE	U (50)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Sulfate	NE	2900 (1000)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Gases												
Methane	NE	3.5 (0.50)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Ethane	NE	0.46 (0.10)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Ethene	NE	0.60 (0.10)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Hydrogen (H2) [nM][4*]	NE	1.5 (0.60)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Molecular Analyses												
BAV1 Vinyl Chloride Reductase [cells/mL]	NE	U (0.5)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Dehalococcoides (DHC) [cells/mL]	NE	U (0.5)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
tceA Reductase [cells/mL]	NE	U (0.5)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Vinyl Chloride Reductase (vrcA) [cells/mL]	NE	U (0.5)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM

Notes:

1 = All concentrations are
2 = Only compounds with at least one detection are shown, with the exception of Monitored Natural Attenuation Parameters, for which all compounds are shown.
3 = Concentrations that exceed the Remedial Action Levels per ADEQ RADD Issued Dec 2013 are
4 = Concentration presented in nM = nanomolar. Sampling Method - Bubble Strip.

U = Not detected
M1 = Lab matrix spike exceeded QC limits
J '=Estimated concentration
d '=The analyte concentration was determined from a dilution.
B = Analyte was detected in the associated method
( ) blank
* = Sampled on different day than other parameters with different method

RADD = Remedial action
ADEQ = Arkansas Department of Environmental Quality
µg/L = Micrograms per Liter
NE = Not established
NM = Not measured

Onsite Wells
Offsite Wells
Plume Boundary Wells

RAMBOLL ENVIRON

TABLE 6
SUMMARY OF MONITORING WELL GROUNDWATER SAMPLE ANALYTICAL RESULTS
(ANNUAL 2016)
Whirlpool Facility - Fort Smith, Arkansas

Location		MW-28	MW-29	MW-39R	MW-40R	MW-50R	MW-60R	MW-61R	MW-62R	MW-63R	MW-68	MW-96
Field Sample ID		MW-28-201611	MW-29-201611	MW-39R-201611	MW-40R-201611	MW-50R-201611	MW-60R-201611	MW-61R-201611	MW-62R-201611	MW-63R-201611	MW-68-201611	MW-96-201611
Lab Sample ID	Remedial Action Levels per ADEQ RADD Issued Dec 2013	60231925001	60231925013	60231721004	60231721005	60231721007, 037NK04	60231848001	60231722001, 209510002, 037NK05	60231721006	60231721002	60231721001	60231848021
Sample Date		Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow
Sample Method		11/09/2016	11/09/2016	11/07/2016	11/07/2016	11/07/2016	11/08/2016	11/07/2016	11/07/2016	11/07/2016	11/07/2016	11/08/2016
Comments												
Volatile Organic Compounds												
Acetone	12000	U (1.9)	U (1.9)	U (1.9)	U (1.9)	U (1.9)	2.3 J (1.9)	U (1.9)	U (1.9)	U (1.9)	U (1.9)	U (1.9)
Benzene	5.0	U (0.060)	U (0.060)	U (0.060)	U (0.060)	U (0.060)	U (0.060)	U (0.060)	U (0.060)	U (0.060)	U (0.060)	U (0.060)
Bromodichloromethane	80	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)
Bromoform	80	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)
Bromomethane	7.0	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)
2-Butanone	4900	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)
Carbon Disulfide	720	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	UJ (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)
Carbon Tetrachloride	5	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)
Chlorobenzene	100	U (0.21)	1.1 (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)
Chloroethane	12000	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)
Chloroform	80	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	0.27 J (0.14)	0.21 J (0.14)	U (0.14)	U (0.14)
Chloromethane	190	U (0.080)	U (0.080)	U (0.080)	U (0.080)	U (0.080)	U (0.080)	0.21 JB (0.080)	U (0.080)	U (0.080)	U (0.080)	U (0.080)
Dibromochloromethane	80	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)
1,1-Dichloroethane	2.4	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)
1,2-Dichloroethane	5.0	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)
1,1-Dichloroethene	7.0	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)
cis-1,2-Dichloroethene	70	U (0.080)	U (0.080)	U (0.080)	U (0.080)	U (0.080)	U (0.080)	2.9 (0.080)	U (0.080)	0.21 J (0.080)	U (0.080)	U (0.080)
trans-1,2-Dichloroethene	100	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)
Ethyl Benzene	700	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	0.28 J (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)
2-Hexanone	34	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)
4-Methyl-2-pentanone	1000	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	UJ (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)
Methylene Chloride	5.0	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)
1,1,2,2-Tetrachloroethane	0.066	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)
Tetrachloroethene	5.0	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)
Toluene	1000	U (0.17)	U (0.17)	U (0.17)	U (0.17)	U (0.17)	U (0.17)	0.48 J (0.17)	U (0.17)	U (0.17)	U (0.17)	U (0.17)
1,1,1-Trichloroethane	200	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)
1,1,2-Trichloroethane	5.0	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)
Trichloroethene	5.0	U (0.17)	U (0.17)	U (0.17)	U (0.17)	U (0.17)	U (0.17)	2.3 (0.17)	U (0.17)	2.9 (0.17)	U (0.17)	U (0.17)
Vinyl Chloride	2.0	U (0.13)	U (0.13)	U (0.13)	U (0.13)	U (0.13)	U (0.13)	U (0.13)	U (0.13)	U (0.13)	U (0.13)	U (0.13)
Metals												
Iron	NE	NM	NM	NM	NM	4840 (50.0)	NM	11600 (50.0)	NM	NM	NM	NM
Manganese	NE	NM	NM	NM	NM	NM	NM	1020 (5.0)	NM	NM	NM	NM
Monitored Natural Attenuation Parameters												
Acetylene	NE	NM	NM	NM	NM	U (0.50)	NM	U (0.50)	NM	NM	NM	NM
Total Alkalinity	NE	NM	NM	NM	NM	NM	NM	362000 (20000)	NM	NM	NM	NM
Ammonia	NE	NM	NM	NM	NM	NM	NM	1000 M1 (100)	NM	NM	NM	NM
Bicarbonate Alkalinity	NE	NM	NM	NM	NM	NM	NM	362000 (20000)	NM	NM	NM	NM
Organic Carbon (total)	NE	NM	NM	NM	NM	410 JB (1000)	NM	3400 (1000)	NM	NM	NM	NM
Carbonate Alkalinity	NE	NM	NM	NM	NM	NM	NM	U (20000)	NM	NM	NM	NM
Chloride	NE	NM	NM	NM	NM	NM	NM	87300 (10000)	NM	NM	NM	NM
Iron, Ferric	NE	NM	NM	NM	NM	4700 (200)	NM	NM	NM	NM	NM	NM
Nitrogen, Nitrate (As N)	NE	NM	NM	NM	NM	U (100)	NM	NM	NM	NM	NM	NM
Nitrogen, Nitrite	NE	NM	NM	NM	NM	13 J (100)	NM	NM	NM	NM	NM	NM
Phosphates (total)	NE	NM	NM	NM	NM	NM	NM	260 M1 (30)	NM	NM	NM	NM
Sulfide (total)	NE	NM	NM	NM	NM	U (50)	NM	U (50)	NM	NM	NM	NM
Sulfate	NE	NM	NM	NM	NM	15100 (1000)	NM	7900 (1000)	NM	NM	NM	NM
Gases												
Methane	NE	NM	NM	NM	NM	240 (0.50)	NM	9400 (0.50)	NM	NM	NM	NM
Ethane	NE	NM	NM	NM	NM	0.12 (0.10)	NM	1.1 (0.10)	NM	NM	NM	NM
Ethene	NE	NM	NM	NM	NM	U (0.10)	NM	0.18 (0.10)	NM	NM	NM	NM
Hydrogen (H2) [nM][4*]	NE	NM	NM	NM	NM	2.4 (0.60)	NM	4.2 (2.4)	NM	NM	NM	NM
Molecular Analyses												
BAV1 Vinyl Chloride Reductase [cells/mL]	NE	NM	NM	NM	NM	U (0.67)	NM	6.2 (0.5)	NM	NM	NM	NM
Dehalocaccoides (DHC) [cells/mL]	NE	NM	NM	NM	NM	2.2 (0.67)	NM	163 (0.5)	NM	NM	NM	NM
tceA Reductase [cells/mL]	NE	NM	NM	NM	NM	U (0.67)	NM	0.6 (0.5)	NM	NM	NM	NM
Vinyl Chloride Reductase (vrcA) [cells/mL]	NE	NM	NM	NM	NM	U (0.67)	NM	16.6 (0.5)	NM	NM	NM	NM

Notes:

1 = All concentrations are
2 = Only compounds with at least one detection are shown, with the exception of Monitored Natural Attenuation Parameters, for which all compounds are shown.
3 = Concentrations that exceed the Remedial Action Levels per ADEQ RADD Issued Dec 2013 are
4 = Concentration presented in nM = nanomolar. Sampling Method - Bubble Strip.

U = Not detected
M1 = Lab matrix spike exceeded QC limits
J '=Estimated concentration
d '=The analyte concentration was determined from a dilution.
B = Analyte was detected in the associated method
( ) blank
* = Sampled on different day than other parameters with different method

RADD = Remedial action
ADEQ = Arkansas Department of Environmental Quality
µg/L = Micrograms per Liter
NE = Not established
NM = Not measured

Onsite Wells
Offsite Wells
Plume Boundary Wells

RAMBOLL ENVIRON

TABLE 6
SUMMARY OF MONITORING WELL GROUNDWATER SAMPLE ANALYTICAL RESULTS
(ANNUAL 2016)
Whirlpool Facility - Fort Smith, Arkansas

Location	Remedial Action Levels per ADEQ RADD Issued Dec 2013	MW-97	MW-98	MW-184	MW-185	MW-186	MW-187	MW-188	MW-189	MW-190	MW-191	MW-192
Field Sample ID		MW-97-201611	MW-98-201611	MW-184-201611	MW-185-201611	MW-186-201611	MW-187-201611	MW-188-201611	MW-189-201611	MW-190-201611	MW-191-201611	MW-192-201611
Lab Sample ID		60231848020	60231848018	60231848022	60231848003	60231722003	60231925030	60231925029	60231722002	60231848017	60231848019	60231925018
Sample Date		Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow
Sample Method		11/08/2016	11/08/2016	11/08/2016	11/08/2016	11/07/2016	11/09/2016	11/09/2016	11/07/2016	11/08/2016	11/08/2016	11/09/2016
Comments												
Volatile Organic Compounds												
Acetone	12000	U (1.9)	U (1.9)	U (1.9)	U (1.9)	U (1.9)	U (1.9)	U (1.9)	U (1.9)	2.6 J (1.9)	U (1.9)	U (1.9)
Benzene	5.0	U (0.060)	U (0.060)	U (0.060)	U (0.060)	U (0.060)	U (0.060)	U (0.060)	U (0.060)	U (0.060)	U (0.060)	U (0.060)
Bromodichloromethane	80	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)
Bromoform	80	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)
Bromomethane	7.0	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)
2-Butanone	4900	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)
Carbon Disulfide	720	U (0.12)	U (0.12)	U (0.12)	U (0.12)	UJ (0.12)	U (0.12)	U (0.12)	UJ (0.12)	U (0.12)	U (0.12)	U (0.12)
Carbon Tetrachloride	5	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)
Chlorobenzene	100	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)
Chloroethane	12000	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)
Chloroform	80	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)
Chloromethane	190	U (0.080)	0.39 J (0.080)	U (0.080)	U (0.080)	0.24 JB (0.080)	U (0.080)	U (0.080)	0.14 JB (0.080)	0.52 J (0.080)	0.32 J (0.080)	U (0.080)
Dibromochloromethane	80	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)
1,1-Dichloroethane	2.4	U (0.050)	U (0.050)	U (0.050)	U (0.050)	0.74 J (0.050)	U (0.050)	U (0.050)	0.55 J (0.050)	U (0.050)	U (0.050)	U (0.050)
1,2-Dichloroethane	5.0	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)
1,1-Dichloroethene	7.0	U (0.20)	U (0.20)	U (0.20)	U (0.20)	0.41 J (0.20)	U (0.20)	U (0.20)	1.4 (0.20)	U (0.20)	U (0.20)	U (0.20)
cis-1,2-Dichloroethene	70	U (0.080)	U (0.080)	U (0.080)	U (0.080)	3.3 (0.080)	U (0.080)	U (0.080)	9.7 (0.080)	U (0.080)	U (0.080)	U (0.080)
trans-1,2-Dichloroethene	100	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)
Ethyl Benzene	700	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)
2-Hexanone	34	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)
4-Methyl-2-pentanone	1000	U (0.42)	U (0.42)	U (0.42)	U (0.42)	UJ (0.42)	U (0.42)	U (0.42)	UJ (0.42)	U (0.42)	U (0.42)	U (0.42)
Methylene Chloride	5.0	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)
1,1,2,2-Tetrachloroethane	0.066	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)
Tetrachloroethene	5.0	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)
Toluene	1000	U (0.17)	U (0.17)	U (0.17)	U (0.17)	U (0.17)	U (0.17)	U (0.17)	U (0.17)	U (0.17)	U (0.17)	U (0.17)
1,1,1-Trichloroethane	200	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)
1,1,2-Trichloroethane	5.0	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)
Trichloroethene	5.0	U (0.17)	U (0.17)	U (0.17)	3.1 (0.17)	5.2 (0.17)	U (0.17)	U (0.17)	10.2 (0.17)	U (0.17)	U (0.17)	U (0.17)
Vinyl Chloride	2.0	U (0.13)	U (0.13)	U (0.13)	U (0.13)	0.16 J (0.13)	U (0.13)	U (0.13)	0.31 J (0.13)	U (0.13)	U (0.13)	U (0.13)
Metals												
Iron	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Manganese	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Monitored Natural Attenuation Parameters												
Acetylene	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Total Alkalinity	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Ammonia	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Bicarbonate Alkalinity	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Organic Carbon (total)	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Carbonate Alkalinity	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Chloride	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Iron, Ferric	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Nitrogen, Nitrate (As N)	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Nitrogen, Nitrite	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Phosphates (total)	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Sulfide (total)	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Sulfate	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Gases												
Methane	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Ethane	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Ethene	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Hydrogen (H2) [nM][4*]	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Molecular Analyses												
BAV1 Vinyl Chloride Reductase [cells/mL]	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Dehalococcoides (DHC) [cells/mL]	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
tceA Reductase [cells/mL]	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Vinyl Chloride Reductase (vrcA) [cells/mL]	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM

Notes:

1 = All concentrations are
2 = Only compounds with at least one detection are shown, with the exception of Monitored Natural Attenuation Parameters, for which all compounds are shown.
3 = Concentrations that exceed the Remedial Action Levels per ADEQ RADD Issued Dec 2013 are
4 = Concentration presented in nM = nanomolar. Sampling Method - Bubble Strip.

U = Not detected
M1 = Lab matrix spike exceeded QC limits
J '=Estimated concentration
d '=The analyte concentration was determined from a dilution.
B = Analyte was detected in the associated method
( ) blank
* = Sampled on different day than other parameters with different method

RADD = Remedial action
ADEQ = Arkansas Department of Environmental Quality
µg/L = Micrograms per Liter
NE = Not established
NM = Not measured

Onsite Wells
Offsite Wells
Plume Boundary Wells

TABLE 6
SUMMARY OF MONITORING WELL GROUNDWATER SAMPLE ANALYTICAL RESULTS
(ANNUAL 2016)
Whirlpool Facility - Fort Smith, Arkansas

Location		MW-194	MW-195	MW-196	IW-73	IW-73	IW-77	IW-78	MW-46R	MW-55R	MW-56R	MW-57R
Field Sample ID		MW-194-201611	MW-195-201611	MW-196-201611	IW-73-201611	DUP-01-201611	IW-77-201611	IW-78-201611	MW-46R-201611	MW-55R-201611	MW-56R-201611	MW-57R-201611
Lab Sample ID	Remedial Action Levels per ADEQ RADD Issued Dec 2013	60231722004	60231925026	60231925031	60231925004, 209510009, 037NK09	60231925003	60231848004	60231848005	60231848002	60231721003	60231848011	60231848010
Sample Date		Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow
Sample Method		11/07/2016	11/09/2016	11/09/2016	11/09/2016	11/09/2016	11/08/2016	11/08/2016	11/08/2016	11/07/2016	11/08/2016	11/08/2016
Comments						Field Duplicate						
Volatile Organic Compounds												
Acetone	12000	U (1.9)	U (1.9)	U (1.9)	U (1.9)	U (1.9)	21.6 (1.9)	82.4 (1.9)	U (1.9)	U (1.9)	U (1.9)	U (1.9)
Benzene	5.0	U (0.060)	U (0.060)	U (0.060)	0.14 J (0.060)	0.12 J (0.060)	0.11 J (0.060)	0.11 J (0.060)	U (0.060)	U (0.060)	0.17 J (0.060)	U (0.060)
Bromodichloromethane	80	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	0.34 J (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)
Bromoform	80	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	11.5 (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)
Bromomethane	7.0	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	2.4 J (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)
2-Butanone	4900	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	6.1 J (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)
Carbon Disulfide	720	UJ (0.12)	0.16 J (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)
Carbon Tetrachloride	5	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)
Chlorobenzene	100	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)
Chloroethane	12000	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)
Chloroform	80	U (0.14)	0.16 J (0.14)	0.17 J (0.14)	U (0.14)	U (0.14)	U (0.14)	0.16 J (0.14)	U (0.14)	0.22 J (0.14)	0.31 J (0.14)	0.14 J (0.14)
Chloromethane	190	0.28 JB (0.080)	U (0.080)	U (0.080)	U (0.080)	U (0.080)	1.6 (0.080)	7.5 (0.080)	U (0.080)	U (0.080)	U (0.080)	U (0.080)
Dibromochloromethane	80	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	0.76 J (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)
1,1-Dichloroethane	2.4	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)
1,2-Dichloroethane	5.0	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)
1,1-Dichloroethene	7.0	U (0.20)	U (0.20)	U (0.20)	0.49 J (0.20)	0.57 J (0.20)	U (0.20)	U (0.20)	1.2 (0.20)	U (0.20)	1.9 (0.20)	1.9 (0.20)
cis-1,2-Dichloroethene	70	U (0.080)	U (0.080)	U (0.080)	2.5 (0.080)	2.8 (0.080)	2.1 (0.080)	U (0.080)	10.3 (0.080)	U (0.080)	27.8 (0.080)	23.0 (0.080)
trans-1,2-Dichloroethene	100	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	0.43 J (0.20)	U (0.20)	0.35 J (0.20)	U (0.20)	0.35 J (0.20)	0.23 J (0.20)
Ethyl Benzene	700	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)
2-Hexanone	34	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)
4-Methyl-2-pentanone	1000	UJ (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)
Methylene Chloride	5.0	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	0.27 J (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)
1,1,2,2-Tetrachloroethane	0.066	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)
Tetrachloroethene	5.0	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)	0.18 J (0.10)
Toluene	1000	U (0.17)	U (0.17)	U (0.17)	U (0.17)	U (0.17)	U (0.17)	U (0.17)	U (0.17)	U (0.17)	U (0.17)	U (0.17)
1,1,1-Trichloroethane	200	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)
1,1,2-Trichloroethane	5.0	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)
Trichloroethene	5.0	12.7 (0.17)	U (0.17)	U (0.17)	113 (0.17)	116 (0.17)	137 (0.17)	2.6 (0.17)	411 (0.85)	3.1 (0.17)	679 (1.7)	441 (0.85)
Vinyl Chloride	2.0	U (0.13)	U (0.13)	U (0.13)	0.16 J (0.13)	0.21 J (0.13)	U (0.13)	U (0.13)	0.79 J (0.13)	U (0.13)	0.37 J (0.13)	0.44 J (0.13)
Metals												
Iron	NE	NM	NM	NM	1210 (50.0)	NM	NM	NM	NM	NM	NM	NM
Manganese	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Monitored Natural Attenuation Parameters												
Acetylene	NE	NM	NM	NM	U (0.50)	NM	NM	NM	NM	NM	NM	NM
Total Alkalinity	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Ammonia	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Bicarbonate Alkalinity	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Organic Carbon (total)	NE	NM	NM	NM	510 JB (1000)	NM	NM	NM	NM	NM	NM	NM
Carbonate Alkalinity	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Chloride	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Iron, Ferric	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Nitrogen, Nitrate (As N)	NE	NM	NM	NM	69 J (100)	NM	NM	NM	NM	NM	NM	NM
Nitrogen, Nitrite	NE	NM	NM	NM	U (100)	NM	NM	NM	NM	NM	NM	NM
Phosphates (total)	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Sulfide (total)	NE	NM	NM	NM	U (50)	NM	NM	NM	NM	NM	NM	NM
Sulfate	NE	NM	NM	NM	13900 (1000)	NM	NM	NM	NM	NM	NM	NM
Gases												
Methane	NE	NM	NM	NM	8.0 (0.50)	NM	NM	NM	NM	NM	NM	NM
Ethane	NE	NM	NM	NM	U (0.10)	NM	NM	NM	NM	NM	NM	NM
Ethene	NE	NM	NM	NM	U (0.10)	NM	NM	NM	NM	NM	NM	NM
Hydrogen (H2) [nM][4*]	NE	NM	NM	NM	1.6 (0.60)	NM	NM	NM	NM	NM	NM	NM
Molecular Analyses												
BAV1 Vinyl Chloride Reductase [cells/mL]	NE	NM	NM	NM	1.4 (0.5)	NM	NM	NM	NM	NM	NM	NM
Dehalocaccoides (DHC) [cells/mL]	NE	NM	NM	NM	28.3 (0.5)	NM	NM	NM	NM	NM	NM	NM
tceA Reductase [cells/mL]	NE	NM	NM	NM	U (0.5)	NM	NM	NM	NM	NM	NM	NM
Vinyl Chloride Reductase (vrcA) [cells/mL]	NE	NM	NM	NM	U (0.5)	NM	NM	NM	NM	NM	NM	NM

Notes:

1 = All concentrations are
2 = Only compounds with at least one detection are shown, with the exception of Monitored Natural Attenuation Parameters, for which all compounds are shown.
3 = Concentrations that exceed the Remedial Action Levels per ADEQ RADD Issued Dec 2013 are
4 = Concentration presented in nM = nanomolar. Sampling Method - Bubble Strip.

U = Not detected
M1 = Lab matrix spike exceeded QC limits
J '=Estimated concentration
d '=The analyte concentration was determined from a dilution.
B = Analyte was detected in the associated method
( ) blank
* = Sampled on different day than other parameters with different method

RADD = Remedial action
ADEQ = Arkansas Department of Environmental Quality
µg/L = Micrograms per Liter
NE = Not established
NM = Not measured

Onsite Wells
Offsite Wells
Plume Boundary Wells

RAMBOLL ENVIRON

TABLE 6
SUMMARY OF MONITORING WELL GROUNDWATER SAMPLE ANALYTICAL RESULTS
(ANNUAL 2016)
Whirlpool Facility - Fort Smith, Arkansas

Location		MW-57R	MW-58R	MW-58R	MW-82	MW-175	MW-176	MW-183	RW-69	TMW-10	TMW-11
Field Sample ID		DUP-07-201611	MW-58R-201611	MW-58R-201612	MW-82-201611	MW-175-201611	MW-176-201611	MW-183-201611	RW-69-201611	TMW-10-201611	TMW-11-201611
Lab Sample ID	Remedial Action Levels per ADEQ RADD Issued Dec 2013	60231848009	60232090008, 209510014, 037NK014	60234409002	60231925009	60231848008	60231848012	60231925017	60231925025, 209510010, 037NK012	60231848024, 209510003, 037NK07	60231848015, 209510007, 037NK03
Sample Date		Low Flow	Low Flow	12/14/2016	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow
Sample Method		11/08/2016	11/10/2016	Low Flow	11/09/2016	11/08/2016	11/08/2016	11/09/2016	11/09/2016	11/08/2016	11/08/2016
Comments		Field Duplicate									
Volatile Organic Compounds											
Acetone	12000	U (1.9)	U (1.9)	U (1.9)	U (1.9)	11.9 (1.9)	U (1.9)	U (1.9)	U (1.9)	U (1.9)	5.0 J (1.9)
Benzene	5.0	U (0.060)	U (0.060)	U (0.060)	0.16 J (0.060)	0.17 J (0.060)	0.11 J (0.060)	U (0.060)	U (0.060)	U (0.060)	0.10 J (0.060)
Bromodichloromethane	80	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)
Bromoform	80	U (0.070)	U (0.070)	U (0.070)	1.1 J (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)
Bromomethane	7.0	U (0.16)	U (0.16)	U (0.16)	0.82 J (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)
2-Butanone	4900	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)
Carbon Disulfide	720	U (0.12)	U (0.12)	U (0.12)	0.33 J (0.12)	0.37 J (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	0.26 J (0.12)
Carbon Tetrachloride	5	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)
Chlorobenzene	100	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)
Chloroethane	12000	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)
Chloroform	80	0.16 J (0.14)	0.16 J (0.14)	U (0.14)	0.15 J (0.14)	U (0.14)	U (0.14)	0.30 J (0.14)	U (0.14)	U (0.14)	U (0.14)
Chloromethane	190	U (0.080)	U (0.080)	U (0.080)	4.3 (0.080)	0.50 J (0.080)	U (0.080)	U (0.080)	U (0.080)	U (0.080)	U (0.080)
Dibromochloromethane	80	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)
1,1-Dichloroethane	2.4	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)
1,2-Dichloroethane	5.0	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	0.12 J (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)
1,1-Dichloroethene	7.0	1.7 (0.20)	2.3 (0.20)	1.7 (0.20)	U (0.20)	U (0.20)	3.1 (0.20)	U (0.20)	0.89 J (0.20)	U (0.20)	U (0.20)
cis-1,2-Dichloroethene	70	24.3 (0.080)	28.5 (0.080)	30.3 (0.080)	0.24 J (0.080)	0.49 J (0.080)	202 (0.80)	U (0.080)	6.2 (0.080)	4.4 (0.080)	4.7 (0.080)
trans-1,2-Dichloroethene	100	U (0.20)	0.23 J (0.20)	0.68 J (0.20)	U (0.20)	U (0.20)	1.8 (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)
Ethyl Benzene	700	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)
2-Hexanone	34	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)
4-Methyl-2-pentanone	1000	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	1.1 J (0.42)
Methylene Chloride	5.0	U (0.15)	U (0.15)	U (0.15)	0.28 J (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)
1,1,2,2-Tetrachloroethane	0.066	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)
Tetrachloroethene	5.0	0.18 J (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)
Toluene	1000	U (0.17)	U (0.17)	U (0.17)	U (0.17)	U (0.17)	0.31 J (0.17)	U (0.17)	U (0.17)	U (0.17)	0.87 J (0.17)
1,1,1-Trichloroethane	200	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)
1,1,2-Trichloroethane	5.0	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)
Trichloroethene	5.0	453 (0.85)	U (0.17)	265 (0.85)	36.2 (0.17)	50.9 (0.17)	320 (1.7)	5.3 (0.17)	185 (0.17)	95.4 (0.17)	1.2 (0.17)
Vinyl Chloride	2.0	0.45 J (0.13)	0.85 J (0.13)	0.61 J (0.13)	U (0.13)	U (0.13)	1.6 (0.13)	U (0.13)	0.26 J (0.13)	U (0.13)	U (0.13)
Metals											
Iron	NE	NM	8030 (50.0)	NM	NM	NM	NM	NM	525 (50.0)	133 (50.0)	7730 (50.0)
Manganese	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Monitored Natural Attenuation Parameters											
Acetylene	NE	NM	U (0.50)	NM	NM	NM	NM	NM	U (0.50)	U (0.50)	U (0.50)
Total Alkalinity	NE	NM	29200 (20000)	NM	NM	NM	NM	NM	NM	NM	NM
Ammonia	NE	NM	U (100)	NM	NM	NM	NM	NM	NM	NM	NM
Bicarbonate Alkalinity	NE	NM	29200 (20000)	NM	NM	NM	NM	NM	NM	NM	NM
Organic Carbon (total)	NE	NM	330 JB (1000)	NM	NM	NM	NM	NM	460 JB (1000)	750 J (1000)	29400 (3000)
Carbonate Alkalinity	NE	NM	U (20000)	NM	NM	NM	NM	NM	NM	NM	NM
Chloride	NE	NM	249000 (20000)	NM	NM	NM	NM	NM	NM	NM	NM
Iron, Ferric	NE	NM	NM	NM	NM	NM	NM	NM	NM	U (200)	4400 (200)
Nitrogen, Nitrate (As N)	NE	NM	NM	NM	NM	NM	NM	NM	U (100)	1100 (100)	U (100)
Nitrogen, Nitrite	NE	NM	NM	NM	NM	NM	NM	NM	U (100)	970 (100)	19 J (100)
Phosphates (total)	NE	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Sulfide (total)	NE	NM	U (50)	NM	NM	NM	NM	NM	U (50)	U (50)	U (50)
Sulfate	NE	NM	1400 (1000)	NM	NM	NM	NM	NM	3400 (1000)	2400 (1000)	680 J (1000)
Gases											
Methane	NE	NM	250 (0.50)	NM	NM	NM	NM	NM	18 (0.50)	24 (0.50)	15000 (0.50)
Ethane	NE	NM	0.22 (0.10)	NM	NM	NM	NM	NM	U (0.10)	U (0.10)	0.85 (0.10)
Ethene	NE	NM	1.8 (0.10)	NM	NM	NM	NM	NM	0.31 (0.10)	0.25 (0.10)	0.55 (0.10)
Hydrogen (H2) [nM][4*]	NE	NM	2.0 (1.2)	NM	NM	NM	NM	NM	1.8 (0.60)	1.8 (0.60)	2.2 (0.60)
Molecular Analyses											
BAV1 Vinyl Chloride Reductase [cells/mL]	NE	NM	U (0.5)	NM	NM	NM	NM	NM	U (0.5)	0.5 (0.5)	26.9 (0.5)
Dehalococcoides (DHC) [cells/mL]	NE	NM	1.2 (0.5)	NM	NM	NM	NM	NM	0.2 J (0.5)	158 (0.5)	715 (0.5)
tceA Reductase [cells/mL]	NE	NM	U (0.5)	NM	NM	NM	NM	NM	U (0.5)	14.3 (0.5)	1.7 (0.5)
Vinyl Chloride Reductase (vrcA) [cells/mL]	NE	NM	U (0.5)	NM	NM	NM	NM	NM	U (0.5)	10.8 (0.5)	115 (0.5)

Notes:

1 = All concentrations are

2 = Only compounds with at least one detection are shown, with the exception of Monitored Natural Attenuation Parameters, for which all compounds are shown.

3 = Concentrations that exceed the Remedial Action Levels per ADEQ RADD Issued Dec 2013 are

4 = Concentration presented in nM = nanomolar. Sampling Method - Bubble Strip.

U = Not detected

M1 = Lab matrix spike exceeded QC limits

J '=Estimated concentration

d '=The analyte concentration was determined from a dilution

B = Analyte was detected in the associated method

( ) blank

* = Sampled on different day than other parameters with different method

RADD = Remedial action

ADEQ = Arkansas Department of Environmental Quality

µg/L = Micrograms per Liter

NE = Not established

NM = Not measured

Onsite Wells

Offsite Wells

Plume Boundary Wells

RAMBOLL ENVIRON

TABLE 7
HISTORICAL SUMMARY OF GROUNDWATER CONCENTRATIONS FOR TCE AND DAUGHTER-PRODUCTS
Whirlpool Facility - Fort Smith, Arkansas

Well ID	Sample Name	Date	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride
ITMW-1	ITMW-1-19891101	11/1/1989	ND		ND
ITMW-1	ITMW-1-19900101	1/1/1990	ND		ND
ITMW-1	ITMW-1-19931101	11/1/1993	10		ND
ITMW-1	ITMW-1-19961201	12/1/1996	21		ND
ITMW-1	ITMW-1-19990201	2/1/1999	37	ND	ND
ITMW-1	ITMW-1-20000301	3/1/2000	125	8	ND
ITMW-1	ITMW-1-20000919	9/19/2000	30.7	7.45	< 10 U
ITMW-1	ITMW-1-20010327	3/27/2001	30	6	< 10 U
ITMW-1	ITMW-1-20010911	9/11/2001	27	9	< 10 U
ITMW-1	ITMW-1-20020910	9/10/2002	35	9	< 10 U
ITMW-1	ITMW-1-20030227	2/27/2003	29.6	7.14	< 10 U
ITMW-1	ITMW-1-20030923	9/23/2003	25	12	< 10 U
ITMW-1	ITMW-1-20040413	4/13/2004	42.2	11.1	< 10 U
ITMW-1	ITMW-1-20040921	9/21/2004	26	16.7	< 10 U
ITMW-1	ITMW-1-20040921-FD	9/21/2004	26.1	15.8	< 10 U
ITMW-1	ITMW-1-20050928	9/28/2005	34.7	11.3	< 10 U
ITMW-1	ITMW-1-20061014	10/14/2006	20	11	< 10 UJ
ITMW-1	ITMW-1-20070920	9/20/2007	18	13	< 10 U
ITMW-1	ITMW-1-20081209	12/9/2008	14	7.3	< 5 U
ITMW-1	ITMW-1-20111027	10/27/2011	17	8.2	< 5 U
ITMW-1	ITMW-1-20120418	4/18/2012	32	13	< 5 U
ITMW-1	ITMW-1-20121019	10/19/2012	10	8.3	< 0.11 U
ITMW-1	ITMW-1-20130424	4/24/2013	26	9.1	< 0.11 U
ITMW-1	ITMW-1-101513	10/15/2013	7.2	5.8	< 0.11 U
ITMW-1	ITMW-1-201403	3/8/2014	23.4	8.9	< 0.13 U
ITMW-1	ITMW-1-201405	5/13/2014	21.3	8.7	< 0.13 U
ITMW-1	DUP-5-201407	7/30/2014	9.2	5.7	< 0.50 U
ITMW-1	ITMW-1-201407	7/30/2014	8.9	5.4	< 0.50 U
ITMW-1	ITMW-1-201410	10/15/2014	6.1	4.5 J	< 0.50 U
ITMW-1	ITMW-1-201501	1/14/2015	22.7	9.7	< 0.50 U
ITMW-1	ITMW-1-201504	4/15/2015	19.2	9.7	< 0.50 U
ITMW-1	ITMW-1-201507	7/22/2015	10.5	5.3	< 0.13 U
ITMW-1	ITMW-1-201510	10/7/2015	7.8	4.4	< 0.13 U
ITMW-1	ITMW-1-201601	1/13/2016	19.9	8.9	< 0.13 U
ITMW-1	DUP-05-201605	5/5/2016	17.6	8.1	< 0.13 U
ITMW-1	ITMW-1-201605	5/5/2016	17.2	8.0	< 0.13 U
ITMW-1	DUP-04-201611	11/10/2016	7.0	3.4	< 0.13 U
ITMW-1	ITMW-1-201611	11/10/2016	7.6	3.1	< 0.13 U
ITMW-2	ITMW-2-19891001	10/1/1989	ND		ND
ITMW-2	ITMW-2-19891101	11/1/1989	ND		ND
ITMW-2	ITMW-2-19900101	1/1/1990	ND		ND
ITMW-2	ITMW-2-19900101-FD	1/1/1990	ND		ND
ITMW-2	ITMW-2-19910301	3/1/1991	ND		ND
ITMW-2	ITMW-2-19931101	11/1/1993	4		ND
ITMW-2	ITMW-2-19961201	12/1/1996	3.4		ND
ITMW-2	ITMW-2-20000301	3/1/2000	ND	ND	ND
ITMW-2	ITMW-2-20000919	9/19/2000	< 5 U	< 5 U	< 10 U
ITMW-2	ITMW-2-20010327	3/27/2001	< 5 U	< 5 U	< 10 U
ITMW-2	ITMW-2-20010913	9/13/2001	< 5 U	< 5 U	< 10 U
ITMW-2	ITMW-2-20020911	9/11/2002	< 5 U	< 5 U	< 10 U
ITMW-2	ITMW-2-20030227	2/27/2003	< 5 U	< 5 U	< 10 U
ITMW-2	ITMW-2-20030923	9/23/2003	< 5 U	< 5 U	< 10 U
ITMW-2	ITMW-2-20040413	4/13/2004	< 5 U	< 5 U	< 10 U
ITMW-2	ITMW-2-20040413-FD	4/13/2004	< 5 U	< 5 U	< 10 U
ITMW-2	ITMW-2-20040921	9/21/2004	< 5 U	< 5 U	< 10 U
ITMW-2	ITMW-2-20040921-FD	9/21/2004	< 5 U	< 5 U	< 10 U
ITMW-2	ITMW-2-20050929	9/29/2005	< 5 U	< 5 U	< 10 U
ITMW-2	ITMW-2-20061014	10/14/2006	4 J	< 5 U	< 10 U
ITMW-2	ITMW-2-20070920	9/20/2007	< 5 U	< 5 U	< 10 U
ITMW-2	ITMW-2-20081209	12/9/2008	< 5 U	< 5 U	< 5 U
ITMW-2	ITMW-2-20101103	11/3/2010	< 5 U	< 5 U	< 5 U
ITMW-2	ITMW-2-20111026	10/26/2011	< 5 U	< 5 U	< 5 U
ITMW-2	ITMW-2-20120417	4/17/2012	< 5 U	< 5 U	< 5 U
ITMW-2	ITMW-2-20121017	10/17/2012	< 1.6 U	< 0.56 U	< 0.11 U
ITMW-2	ITMW-2-20130424	4/24/2013	< 1.6 U	< 0.56 U	< 0.11 U
ITMW-2	ITMW-2-101413	10/14/2013	< 1.6 U	< 0.56 U	< 0.11 U
ITMW-2	ITMW-2-201403	3/6/2014	0.23 J	0.40 J	< 0.13 U
ITMW-2	ITMW-2-201403-FD	3/6/2014	0.28 J	0.51 J	< 0.13 U
ITMW-2	ITMW-2-201405	5/13/2014	< 0.17 U	< 0.080 U	< 0.13 U
ITMW-2	ITMW-2-201407	7/30/2014	< 0.50 U	< 0.50 U	< 0.50 U
ITMW-2	ITMW-2-201410	10/15/2014	< 0.50 U	< 0.50 U	< 0.50 U
ITMW-2	ITMW-2-201501	1/13/2015	< 0.50 U	< 0.50 U	< 0.50 U
ITMW-2	ITMW-2-201504	4/15/2015	< 0.50 U	< 0.50 U	< 0.50 U
ITMW-2	ITMW-2-201507	7/22/2015	0.24 J	0.26 J	< 0.13 U
ITMW-2	ITMW-2-201510	10/6/2015	0.22 J	0.21 J	< 0.13 U
ITMW-2	ITMW-2-201601	1/12/2016	0.21 J	0.42 J	< 0.13 U
ITMW-2	ITMW-2-201605	5/5/2016	0.25 J	0.29 J	< 0.13 U
ITMW-2	ITMW-2-201611	11/9/2016	< 0.17 U	< 0.080 U	< 0.13 U

TABLE 7
HISTORICAL SUMMARY OF GROUNDWATER CONCENTRATIONS FOR TCE AND DAUGHTER-PRODUCTS
Whirlpool Facility - Fort Smith, Arkansas

Well ID	Sample Name	Date	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride
ITMW-3	ITMW-3-19891001	10/1/1989	ND		ND
ITMW-3	ITMW-3-19900101	1/1/1990	ND		ND
ITMW-3	ITMW-3-19931101	11/1/1993	3		ND
ITMW-3	ITMW-3-19961201	12/1/1996	1.7		ND
ITMW-3	ITMW-3-19990201	2/1/1999	ND	ND	ND
ITMW-3	ITMW-30-20000301-FD	3/1/2000	ND	ND	ND
ITMW-3	ITMW-3-20000301	3/1/2000	ND	ND	ND
ITMW-3	ITMW-3-20000919	9/19/2000	< 5 U	< 5 U	< 10 U
ITMW-3	ITMW-3-20010327	3/27/2001	< 5 U	< 5 U	< 10 U
ITMW-3	ITMW-3-20010911	9/11/2001	< 5 U	< 5 U	< 10 U
ITMW-3	ITMW-3-20020910	9/10/2002	15	< 5 U	< 10 U
ITMW-3	ITMW-3-20030227	2/27/2003	< 5 U	< 5 U	< 10 U
ITMW-3	ITMW-3-20030923	9/23/2003	< 5 U	< 5 U	< 10 U
ITMW-3	ITMW-3-20040413	4/13/2004	< 5 U	< 5 U	< 10 U
ITMW-3	ITMW-3-20040921	9/21/2004	< 5 U	< 5 U	< 10 U
ITMW-3	ITMW-3-20050928	9/28/2005	< 5 U	< 5 U	< 10 U
ITMW-3	ITMW-3-20061014	10/14/2006	< 5 U	< 5 U	< 10 UJ
ITMW-3	ITMW-3-20070920	9/20/2007	< 5 U	< 5 U	< 10 U
ITMW-3	ITMW-3-20081209	12/9/2008	< 5 U	< 5 U	< 5 U
ITMW-3	ITMW-3-20101104	11/4/2010	190	3.9 J	< 5 U
ITMW-3	ITMW-3-20111027	10/27/2011	4.1 J	< 5 U	< 5 U
ITMW-3	ITMW-3-20120417	4/17/2012	< 5 U	< 5 U	< 5 U
ITMW-3	ITMW-3-20121017	10/17/2012	< 1.6 U	< 0.56 U	< 0.11 U
ITMW-3	ITMW-3-20130423	4/23/2013	< 1.6 U	< 0.56 U	< 0.11 U
ITMW-3	ITMW-3-101513	10/15/2013	< 1.6 U	< 0.56 U	< 0.11 U
ITMW-4	ITMW-4-19891001	10/1/1989	ND		ND
ITMW-4	ITMW-4-19891101	11/1/1989	ND		ND
ITMW-4	ITMW-4-19900101	1/1/1990	ND		ND
ITMW-4	ITMW-4-19931101	11/1/1993	ND		ND
ITMW-4	ITMW-4-19961201	12/1/1996	75		ND
ITMW-4	ITMW-4-19990201	2/1/1999	93	54	ND
ITMW-4	ITMW-4-20000301	3/1/2000	22	16	ND
ITMW-4	ITMW-4-20000920	9/20/2000	13.9	10.6	< 10 U
ITMW-4	ITMW-4-20010328	3/28/2001	9	< 5 U	< 10 U
ITMW-4	ITMW-4-20010913	9/13/2001	6	8	< 10 U
ITMW-4	ITMW-4-20020910	9/10/2002	9	< 5 U	< 10 U
ITMW-4	ITMW-4-20030228	2/28/2003	< 5 U	< 5 U	< 10 U
ITMW-4	ITMW-4-20030923	9/23/2003	< 5 U	< 5 U	< 10 U
ITMW-4	ITMW-4-20040414	4/14/2004	< 5 U	< 5 U	< 10 U
ITMW-4	ITMW-4-20040922	9/22/2004	< 5 U	< 5 U	< 10 U
ITMW-4	ITMW-4-20050927	9/27/2005	< 5 U	< 5 U	< 10 U
ITMW-4	ITMW-4-20061011	10/11/2006	6	8	< 10 U
ITMW-4	ITMW-4-20070920	9/20/2007	5 J	5 J	< 10 U
ITMW-4	ITMW-4-20081209	12/9/2008	< 5 U	3.2 J	< 5 U
ITMW-4	ITMW-4-20111025	10/25/2011	4.8 J	5.1	< 5 U
ITMW-4	ITMW-4-20121017	10/17/2012	3.3 J	4.5 J	7.9
ITMW-4	ITMW-4-101413	10/14/2013	3.7 J	6.1	< 0.11 U
ITMW-4	ITMW-4-201403	3/6/2014	1.4 J	2.0 J	0.19 J
ITMW-4	ITMW-4-201405	5/13/2014	2.0 J	2.1 J	0.18 J
ITMW-4	ITMW-4-201407	7/30/2014	2.8 J	4.6 J	< 0.50 U
ITMW-4	ITMW-4-201410	10/16/2014	3.4 J	4.9 J	< 0.50 U
ITMW-4	ITMW-4-201501	1/13/2015	1.7	2.3	< 0.50 U
ITMW-4	ITMW-4-201504	4/14/2015	1.6	2.6	0.84 J
ITMW-4	ITMW-4-201507	7/22/2015	2.0	2.6	0.17 J
ITMW-4	ITMW-4-201510	10/7/2015	2.3	2.8	0.23 J
ITMW-4	ITMW-4-201601	1/12/2016	1.5	2.5	< 0.13 U
ITMW-4	ITMW-4-201605	5/5/2016	1.3	< 0.080 U	0.15 J
ITMW-5	ITMW-5-19891001	10/1/1989	ND		ND
ITMW-5	ITMW-5-19900101	1/1/1990	ND		ND
ITMW-5	ITMW-5-19961201	12/1/1996	21		ND
ITMW-5	ITMW-5-19990201	2/1/1999	86	39	ND
ITMW-5	ITMW-5-20000301	3/1/2000	73	59	ND
ITMW-5	ITMW-5-20000920	9/20/2000	85	64.4	< 10 U
ITMW-5	ITMW-5-20010328	3/28/2001	100	46	< 10 U
ITMW-5	ITMW-5-20010913	9/13/2001	72	64	< 10 U
ITMW-5	ITMW-5-20020910	9/10/2002	108	72	< 10 U
ITMW-5	ITMW-5-20030228	2/28/2003	90.4	68.7	< 10 U
ITMW-5	ITMW-5-20030924	9/24/2003	97.3	73.7	< 10 U
ITMW-5	ITMW-5-20040414	4/14/2004	83.9	55.4	< 10 U
ITMW-5	ITMW-5-20040922	9/22/2004	105	75.8	< 10 U
ITMW-5	ITMW-5-20050406	4/6/2005	93.2	72.6	< 10 U
ITMW-5	ITMW-5-20050406-FD	4/6/2005	87	71	< 10 U
ITMW-5	ITMW-5-20050928	9/28/2005	79	53.5	< 10 U
ITMW-5	ITMW-5-20050928-FD	9/28/2005	82.1	54.4	< 10 U
ITMW-5	ITMW-5-20060314	3/14/2006	92	66.1	< 10 U
ITMW-5	ITMW-5-20060314-FD	3/14/2006	98.4	66.1	< 10 U
ITMW-5	ITMW-5-20061010	10/10/2006	110	51	4 J
ITMW-5	ITMW-5-20070418	4/18/2007	115	39.3	< 10 U

TABLE 7
HISTORICAL SUMMARY OF GROUNDWATER CONCENTRATIONS FOR TCE AND DAUGHTER-PRODUCTS
Whirlpool Facility - Fort Smith, Arkansas

Well ID	Sample Name	Date	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride
ITMW-5	ITMW-5-20070920	9/20/2007	120	49	4 J
ITMW-5	ITMW-5-20080429	4/29/2008	120	43	< 10 U
ITMW-5	ITMW-5-20081209	12/9/2008	200 E	42	< 5 U
ITMW-5	ITMW-5-20090427	4/27/2009	160	34	< 5 U
ITMW-5	ITMW-5-20100511	5/11/2010	190 EF	40	< 5 U
ITMW-5	ITMW-5-20101106	11/6/2010	350	50	< 5 U
ITMW-5	ITMW-5-20110322	3/22/2011	370	39	< 5 U
ITMW-5	ITMW-5-20111025	10/25/2011	150	35	< 5 U
ITMW-5	ITMW-5-20120417	4/17/2012	290	26	< 5 U
ITMW-5	ITMW-5-20121018	10/18/2012	260	33	0.64 J
ITMW-5	ITMW-5-20130425	4/25/2013	220	20	0.50 J
ITMW-5	ITMW-5-101613	10/16/2013	260	27	0.55 J
ITMW-5	DUP-06-201611	11/10/2016	441	33.5	1.5 J
ITMW-5	ITMW-5-201611	11/10/2016	507	38.9	2.8 J
ITMW-6	ITMW-6-19891001	10/1/1989	ND		ND
ITMW-6	ITMW-6-19900101	1/1/1990	ND		ND
ITMW-6	ITMW-6-19961201	12/1/1996	6.8		ND
ITMW-6	ITMW-6-19970501	5/1/1997	7	ND	ND
ITMW-6	ITMW-6-19990201	2/1/1999	25	ND	ND
ITMW-6	ITMW-6-19990201-FD	2/1/1999	6	ND	ND
ITMW-6	ITMW-6-20000301	3/1/2000	ND	ND	ND
ITMW-6	ITMW-6-20000920	9/20/2000	< 5 U	< 5 U	< 10 U
ITMW-6	ITMW-6-20010328	3/28/2001	< 5 U	< 5 U	< 10 U
ITMW-6	ITMW-6-20010913	9/13/2001	< 5 U	< 5 U	< 10 U
ITMW-6	ITMW-6-20020910	9/10/2002	< 5 U	< 5 U	< 10 U
ITMW-6	ITMW-6-20020910-FD	9/10/2002	< 5 U	< 5 U	< 10 U
ITMW-6	ITMW-6-20030227	2/27/2003	< 5 U	< 5 U	< 10 U
ITMW-6	ITMW-6-20030924	9/24/2003	< 5 U	< 5 U	< 10 U
ITMW-6	ITMW-6-20040414	4/14/2004	< 5 U	< 5 U	< 10 U
ITMW-6	ITMW-6-20040922	9/22/2004	< 5 U	< 5 U	< 10 U
ITMW-6	ITMW-6-20050928	9/28/2005	< 5 U	< 5 U	< 10 U
ITMW-6	ITMW-6-20061011	10/11/2006	< 5 U	4 J	< 10 U
ITMW-6	ITMW-6-20070920	9/20/2007	< 5 U	< 5 U	< 10 U
ITMW-6	ITMW-6-20081210	12/10/2008	< 5 U	< 5 U	< 5 U
ITMW-6	ITMW-6-20091028	10/28/2009	< 5 U	2.1 J	< 5 U
ITMW-6	ITMW-6-20100510	5/10/2010	< 5 U	1.9 J	< 5 U
ITMW-6	ITMW-6-20111025-FD	10/25/2011	< 5 U	2.7 J	< 5 U
ITMW-6	ITMW-6-20111025	10/25/2011	< 5 U	2.4 J	< 5 U
ITMW-6	ITMW-6-20120417	4/17/2012	< 5 U	2.9 J	< 5 U
ITMW-6	ITMW-6-20121017	10/17/2012	< 1.6 U	3.1 J	< 0.11 U
ITMW-6	ITMW-6-20130422	4/22/2013	< 1.6 U	2.1 J	0.33 J
ITMW-6	ITMW-6-101413	10/14/2013	3.4 J	5.5	0.18 J
ITMW-6	ITMW-6-201403	3/6/2014	2.7 J	4.9 J	0.18 J
ITMW-6	ITMW-6-201405	5/13/2014	3.6 J	5.3	0.17 J
ITMW-6	ITMW-6-201407	7/30/2014	4.4 J	6.7	< 0.50 U
ITMW-6	ITMW-6-201410	10/15/2014	3.1 J	5.2	< 0.50 U
ITMW-6	ITMW-6-201501	1/13/2015	3.7	5.7	< 0.50 U
ITMW-6	ITMW-6-201504	4/14/2015	3.7	5.3 J	< 0.50 U
ITMW-6	ITMW-6-201507	7/22/2015	4.7	6.3	0.31 J
ITMW-6	ITMW-6-201510	10/7/2015	3.1	5.5	0.21 J
ITMW-6	ITMW-6-201601	1/12/2016	4.2	6.2	0.32 J
ITMW-6	ITMW-6-201605	5/5/2016	4.4	5.3	0.22 J
ITMW-7	ITMW-7-19891101	11/1/1989	ND		ND
ITMW-7	ITMW-7-19900101	1/1/1990	ND		ND
ITMW-7	ITMW-7-19961201	12/1/1996	290		3
ITMW-7	ITMW-7-19970501	5/1/1997	380	180	ND
ITMW-7	ITMW-7-19990201	2/1/1999	ND	ND	ND
ITMW-7	ITMW-7-19990601	6/1/1999	320	144	ND
ITMW-7	ITMW-7-19990601-FD	6/1/1999	300	140	ND
ITMW-7	ITMW-7-20000301	3/1/2000	262	100	ND
ITMW-7	ITMW-7-20000301-FD	3/1/2000	207	92	ND
ITMW-7	ITMW-7-20000919	9/19/2000	207	100	< 10 U
ITMW-7	ITMW-7-20000921-FD	9/21/2000	109	< 5 U	< 10 U
ITMW-7	ITMW-7-20010328	3/28/2001	161	66	< 10 U
ITMW-7	ITMW-7-20010913	9/13/2001	139	68	< 10 U
ITMW-7	ITMW-7-20020910	9/10/2002	137	56	< 10 U
ITMW-7	ITMW-7-20020910-FD	9/10/2002	128	54	< 10 U
ITMW-7	ITMW-7-20030227	2/27/2003	172	92.5	< 10 U
ITMW-7	ITMW-7-20030924	9/24/2003	125	57.3	< 10 U
ITMW-7	ITMW-7-20040414	4/14/2004	201	80.7	< 10 U
ITMW-7	ITMW-7-20040922	9/22/2004	132	48.4	< 10 U
ITMW-7	ITMW-7-20050407	4/7/2005	122	39	< 10 U
ITMW-7	ITMW-7-20050928	9/28/2005	100	30.5	< 10 U
ITMW-7	ITMW-7-20060314	3/14/2006	153	59.5	< 10 U
ITMW-7	ITMW-7-20061010	10/10/2006	140	44	1 J
ITMW-7	ITMW-7-20070417	4/17/2007	83	29.4	< 10 U
ITMW-7	ITMW-7-20070921	9/21/2007	72	22	< 10 U
ITMW-7	ITMW-7-20080430	4/30/2008	70	18	< 10 U

TABLE 7
HISTORICAL SUMMARY OF GROUNDWATER CONCENTRATIONS FOR TCE AND DAUGHTER-PRODUCTS
Whirlpool Facility - Fort Smith, Arkansas

Well ID	Sample Name	Date	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride	
ITMW-7	ITMW-7-20081211	12/11/2008	66	19	< 5	U
ITMW-7	ITMW-7-20090427	4/27/2009	87	26	< 5	U
ITMW-7	ITMW-7-20091028	10/28/2009	60	20	< 5	U
ITMW-7	ITMW-7-20100510	5/10/2010	73	18	< 5	U
ITMW-7	ITMW-7-20110323	3/23/2011	225 EF	93.2	56.5	
ITMW-7	ITMW-7-20111025	10/25/2011	99	26	< 5	U
ITMW-7	ITMW-7-20120418	4/18/2012	100	20	< 5	U
ITMW-7	ITMW-7-20121018	10/18/2012	63	17	< 0.11	U
ITMW-7	ITMW-7-20130425	4/25/2013	69	16	0.27	J
ITMW-7	ITMW-7-101713	10/17/2013	47	12	< 0.11	U
ITMW-7	ITMW-7-201403	3/8/2014	37.4	10	0.24	J
ITMW-7	ITMW-7-201405	5/14/2014	37.0	11.1	0.22	J
ITMW-7	ITMW-7-201407	7/30/2014	36.7	11.2	< 0.50	U
ITMW-7	ITMW-7-201410	10/15/2014	33.7	10.3	< 0.50	U
ITMW-7	ITMW-7-201501	1/14/2015	34.7	10.5	< 0.50	U
ITMW-7	ITMW-7-201504	4/14/2015	29.3	9.2	< 0.50	U
ITMW-7	ITMW-7-201507	7/22/2015	26.4	8.3	0.19	J
ITMW-7	ITMW-7-201510	10/8/2015	27.6	8.8	0.19	J
ITMW-7	ITMW-7-201601	1/13/2016	44.2	13.0	0.23	J
ITMW-7	DUP-06-201605	5/5/2016	33.9	9.0	0.18	J
ITMW-7	ITMW-7-201605	5/5/2016	33.8	8.7	< 0.13	U
ITMW-7	ITMW-7-201611	11/10/2016	33.2	10	0.26	J
ITMW-9	ITMW-9-19900101	1/1/1990	ND			ND
ITMW-9	ITMW-9-19961201	12/1/1996	230			ND
ITMW-9	ITMW-9-19970501	5/1/1997	7	ND		ND
ITMW-9	ITMW-9-19990201	2/1/1999	40	24		ND
ITMW-9	ITMW-9-20000301	3/1/2000	69	45		ND
ITMW-9	ITMW-9-20000920	9/20/2000	57.3	14.3	< 10	U
ITMW-9	ITMW-9-20000920-FD	9/20/2000	54.8	14	< 10	U
ITMW-9	ITMW-9-20010328	3/28/2001	40	12	< 10	U
ITMW-9	ITMW-9-20010913	9/13/2001	40	12	< 10	U
ITMW-9	ITMW-9-20020910	9/10/2002	61	21	< 10	U
ITMW-9	ITMW-9-20030228	2/28/2003	54.2	37.2	< 10	U
ITMW-9	ITMW-9-20030923	9/23/2003	91	49.5	< 10	U
ITMW-9	ITMW-9-20030923-FD	9/23/2003	97.6	53.9	< 10	U
ITMW-9	ITMW-9-20040414	4/14/2004	71.8	38.8	< 10	U
ITMW-9	ITMW-9-20040922	9/22/2004	80.7	21.1	< 10	U
ITMW-9	ITMW-9-20050406	4/6/2005	79	30.4	< 10	U
ITMW-9	ITMW-9-20050927	9/27/2005	98.8	54.6	< 10	U
ITMW-9	ITMW-9-20060314	3/14/2006	101	78.7	< 10	U
ITMW-9	ITMW-9-20061011	10/11/2006	110	77	6	J
ITMW-9	ITMW-9-20070417	4/17/2007	79	39.6	< 10	U
ITMW-9	ITMW-9-20070920	9/20/2007	76	26	< 10	U
ITMW-9	ITMW-9-20080428	4/28/2008	82	37	< 10	U
ITMW-9	ITMW-9-20081209	12/9/2008	90	62	< 5	U
ITMW-9	ITMW-9-20090427	4/27/2009	110	51	< 5	U
ITMW-9	ITMW-9-20091027	10/27/2009	120	67	5.7	
ITMW-9	ITMW-9-20091027-FD	10/27/2009	120	71	6.1	
ITMW-9	ITMW-9-20100511	5/11/2010	130	38	< 5	U
ITMW-9	ITMW-9-20110322	3/22/2011	120	48	2.4	J
ITMW-9	ITMW-9-20111025	10/25/2011	90	57	< 5	U
ITMW-9	ITMW-9-20120417	4/17/2012	150	50	2.5	J
ITMW-9	ITMW-9-20121018	10/18/2012	120	53	5.2	
ITMW-9	ITMW-9-20130424	4/24/2013	140	44	1.6	J
ITMW-9	ITMW-9-101713	10/17/2013	83	42	16	
ITMW-9	ITMW-9-201403	3/8/2014	112	40.4	0.41	J
ITMW-9	ITMW-9-201405	5/14/2014	113	42.2	0.64	J
ITMW-9	DUP-6-201407	7/30/2014	143	43.9	0.54	J
ITMW-9	ITMW-9-201407	7/30/2014	141	44.4	0.53	J
ITMW-9	DUP-02-201410	10/15/2014	75.3	38.8	1.7	J
ITMW-9	ITMW-9-201410	10/15/2014	76.9	39.1	1.8	J
ITMW-9	DUP-02-201501	1/13/2015	89.4	39.1	1.4	
ITMW-9	ITMW-9-201501	1/13/2015	89.6	39.1	1.4	
ITMW-9	ITMW-9-201504	4/15/2015	100	35.4	< 0.50	U
ITMW-9	ITMW-9-201507	7/21/2015	142	35.5	0.40	J
ITMW-9	DUP-09-201510	10/7/2015	55.2	26.8	1.1	
ITMW-9	ITMW-9-201510	10/7/2015	55.6	26.6	1.0	
ITMW-9	DUP-04-201601	1/13/2016	91.3	34.1	1.1	
ITMW-9	ITMW-9-201601	1/13/2016	92.4	35.3	1.1	
ITMW-9	ITMW-9-201605	5/5/2016	97.3	31.6	0.48	J
ITMW-9	ITMW-9-201611	11/8/2016	2550	73.0 J	0.17	J
ITMW-9	ITMW-9-201612	12/14/2016	193	40.1	1.0	
ITMW-10	ITMW-10-19900101	1/1/1990	ND			ND
ITMW-10	ITMW-10-19961201	12/1/1996	4			ND
ITMW-10	ITMW-10-19990201	2/1/1999	25	13		ND
ITMW-10	ITMW-10-20000301	3/1/2000	23	17		ND
ITMW-10	ITMW-10-20000920	9/20/2000	18.1	15.9	< 10	U
ITMW-10	ITMW-10-20010328	3/28/2001	40	21	< 10	U

RAMBOLL ENVIRON

TABLE 7
HISTORICAL SUMMARY OF GROUNDWATER CONCENTRATIONS FOR TCE AND DAUGHTER-PRODUCTS
Whirlpool Facility - Fort Smith, Arkansas

Well ID	Sample Name	Date	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride	
ITMW-10	ITMW-10-20010913	9/13/2001	29	28	< 10	U
ITMW-10	ITMW-10-20010913-FD	9/13/2001	30	27	< 10	U
ITMW-10	ITMW-10-20020910	9/10/2002	55	38	< 10	U
ITMW-10	ITMW-10-20030228	2/28/2003	57.6	50.9	< 10	U
ITMW-10	ITMW-10-20030716	7/16/2003	55.3	49.2	< 10	U
ITMW-10	ITMW-10-20030923	9/23/2003	65.9	56.5	< 10	U
ITMW-10	ITMW-10-20040414	4/14/2004	80	57.4	< 10	U
ITMW-10	ITMW-10-20040922	9/22/2004	59.6	50	< 10	U
ITMW-10	ITMW-10-20050406	4/6/2005	72.1	57.7	< 10	U
ITMW-10	ITMW-10-20050928	9/28/2005	57.6	41.6	< 10	U
ITMW-10	ITMW-10-20060314	3/14/2006	82	67.2	< 10	U
ITMW-10	ITMW-10-20061010	10/10/2006	88	54	5	J
ITMW-10	ITMW-10-20070417	4/17/2007	76	52.4	< 10	U
ITMW-10	ITMW-10-20070920	9/20/2007	67	48	5	J
ITMW-10	ITMW-10-20080428	4/28/2008	61	46	< 10	U
ITMW-10	ITMW-10-20081209	12/9/2008	78	50	< 5	U
ITMW-10	ITMW-10-20090427	4/27/2009	87	52	4.4	J
ITMW-10	ITMW-10-20091027	10/27/2009	110	50	4.2	J
ITMW-10	ITMW-10-20100511	5/11/2010	85	46	2.4	J
ITMW-10	ITMW-10-20110322	3/22/2011	92	42	2.7	J
ITMW-10	ITMW-10-20111025	10/25/2011	94	39	2.5	J
ITMW-10	ITMW-10-20121018	10/18/2012	100	37	2.5	
ITMW-10	ITMW-10-101513	10/15/2013	100	32	3.1	
ITMW-10	ITMW-10-201403	3/6/2014	166	32.3	1.2	J
ITMW-10	ITMW-10-201405	5/14/2014	184	32.4	1.4	J
ITMW-10	ITMW-10-201407	7/30/2014	273	38.3	1.8	J
ITMW-10	ITMW-10-201410	10/15/2014	243	32.3	1.7	J
ITMW-10	ITMW-10-201501	1/14/2015	403	38.9	1.4	
ITMW-10	ITMW-10-201504	4/15/2015	258	34.8	0.98	J
ITMW-10	DUP-08-201504	4/16/2015	303	36.1	1.2	
ITMW-10	DUP-01-201507	7/22/2015	501	36.7	1.5	
ITMW-10	ITMW-10-201507	7/22/2015	504	36.2	1.3	
ITMW-10	DUP-04-201510	10/7/2015	445	37.9	1.6	
ITMW-10	ITMW-10-201510	10/7/2015	437	37.5	1.5	
ITMW-10	DUP-01-201601	1/13/2016	735	45.5	1.7	
ITMW-10	ITMW-10-201601	1/13/2016	761	44.4	1.6	
ITMW-10	DUP-01-201605	5/5/2016	673	34.0	1.1	
ITMW-10	ITMW-10-201605	5/5/2016	743	36.6	1.1	
ITMW-10	ITMW-10-201611	11/10/2016	113	12.5	0.52	J
ITMW-11	ITMW-11-19900101	1/1/1990	19000		180	
ITMW-11	ITMW-11-19901101	11/1/1990	4700		93	
ITMW-11	ITMW-11-19910201	2/1/1991	3400			ND
ITMW-11	ITMW-11-19931101	11/1/1993	2300		43	
ITMW-11	ITMW-11-19961201	12/1/1996	510			ND
ITMW-11	ITMW-11-19990201	2/1/1999	650	10		ND
ITMW-11	ITMW-11-20000301	3/1/2000	3370	206		ND
ITMW-11	ITMW-11-20000919	9/19/2000	8030	327	11.7	
ITMW-11	ITMW-11-20010327	3/27/2001	7000	200	< 10	U
ITMW-11	ITMW-11-20010913	9/13/2001	6000	183	< 10	U
ITMW-11	ITMW-11-20011120	11/20/2001	< 5 U	< 5 U	< 10	U
ITMW-11	ITMW-11L-20020909	9/9/2002	7100	206	10	
ITMW-11	ITMW-11T-20020909	9/9/2002	800	72	< 10	U
ITMW-11	ITMW-11-20030226	2/26/2003	4110	346	58.8	
ITMW-11	ITMW-11-20030226-FD	2/26/2003	3630	306	60.7	
ITMW-11	ITMW-11-20030924	9/24/2003	3990	269	11.8	
ITMW-11	ITMW-11-20040413	4/13/2004	3160	240	37.8	
ITMW-11	ITMW-11-20040921	9/21/2004	3450	204	< 10	U
ITMW-11	ITMW-11-20050407	4/7/2005	4210	282	66.7	
ITMW-11	ITMW-11-20050929	9/29/2005	3910	199	18	
ITMW-11	ITMW-11-20060316	3/16/2006	14600	1290	482	
ITMW-11	ITMW-11-20060316-FD	3/16/2006	12800	1210	381	
ITMW-11	ITMW-11-20061013	10/13/2006	8000	340	47	
ITMW-11	ITMW-11-20070419	4/19/2007	3970	199	< 200	U
ITMW-11	ITMW-11-20070921	9/21/2007	7600	180	21	
ITMW-11	ITMW-11-20080430	4/30/2008	4500	210	58	
ITMW-11	ITMW-11-20081210	12/10/2008	5800	190	27	
ITMW-11	ITMW-11-20090427	4/27/2009	2500	200	24	
ITMW-11	ITMW-11-20100511-FD	5/11/2010	6200	290	28	
ITMW-11	ITMW-11-20100511	5/11/2010	6200	290	45	
ITMW-11	ITMW-11-20110323	3/23/2011	9700	520	130	
ITMW-11	ITMW-11-20111026	10/26/2011	8800	310	16	
ITMW-11	ITMW-11-20121019	10/19/2012	1400	34	2.4	
ITMW-11	ITMW-11-101713	10/17/2013	180	8.7	2.9	
ITMW-11	ITMW-11-201403	3/8/2014	2980	187 M1	22.5	
ITMW-11	DUP-4-201405	5/15/2014	1470	107	4.9	
ITMW-11	ITMW-11-201405	5/15/2014	1590	99.5	5.5	
ITMW-11	ITMW-11-201407	7/31/2014	7380	156	6.9	
ITMW-11	ITMW-11-201410	10/15/2014	2050	70.4	3.5	

TABLE 7
HISTORICAL SUMMARY OF GROUNDWATER CONCENTRATIONS FOR TCE AND DAUGHTER-PRODUCTS
Whirlpool Facility - Fort Smith, Arkansas

Well ID	Sample Name	Date	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride	
ITMW-11	ITMW-11-20141204	12/4/2014	1530	55.0	6.4	
ITMW-11	ITMW-11-201501	1/15/2015	68.3	9.8	1.9	
ITMW-11	ITMW-11-201504	4/15/2015	< 0.50 U	< 0.50 U	< 0.50	U
ITMW-11	ITMW-11-201507	7/22/2015	33.2	5.9	< 0.13	U
ITMW-11	ITMW-11-201510	10/7/2015	721	57.9	0.96	J
ITMW-11	DUP-03-201601	1/13/2016	2100	199	65.3	
ITMW-11	ITMW-11-201601	1/13/2016	605	100	13.1	
ITMW-11	ITMW-11-201605	5/5/2016	4630	173	11.2	
ITMW-12	ITMW-12-19901101	11/1/1990	2400		140	
ITMW-12	ITMW-12-19910201	2/1/1991	2100			ND
ITMW-12	ITMW-12-19931101	11/1/1993	2500		35	
ITMW-12	ITMW-12-19961201	12/1/1996	1200			ND
ITMW-12	ITMW-12-19990201	2/1/1999	3100	480	34	
ITMW-12	ITMW-12-20000301	3/1/2000	3110	320	19	
ITMW-12	ITMW-12-20000919	9/19/2000	3350	180	12	
ITMW-12	ITMW-12-20010327	3/27/2001	3900	200	20	
ITMW-12	ITMW-12-20010913	9/13/2001	3100	159	< 10	U
ITMW-12	ITMW-12-20011120	11/20/2001	2400	300	20	
ITMW-12	ITMW-12-20020911	9/11/2002	4200	300	< 10	U
ITMW-12	ITMW-12-20030226	2/26/2003	3460	287	< 10	U
ITMW-12	ITMW-12-20030226-FD	2/26/2003	3940	308	< 10	U
ITMW-12	ITMW-12-20030924	9/24/2003	2920	242	< 10	U
ITMW-12	ITMW-12-20040413	4/13/2004	2410	245	< 10	U
ITMW-12	ITMW-12-20040921	9/21/2004	1780	238	< 10	U
ITMW-12	ITMW-12-20050929	9/29/2005	2120	273	< 10	U
ITMW-12	ITMW-12-20061013	10/13/2006	3500	310	9	J
ITMW-12	ITMW-12-20070921	9/21/2007	2100	220	< 10	U
ITMW-12	ITMW-12-20081209	12/9/2008	1500	180	< 5	U
ITMW-12	ITMW-12-20111026	10/26/2011	1600	230	1.8	J
ITMW-12	ITMW-12-20121019	10/19/2012	2500	200	3.6	
ITMW-12	ITMW-12-101713	10/17/2013	2300	190	3.2	
ITMW-12	ITMW-12-20131017-FD	10/17/2013	2300	160	4.1	
ITMW-12	ITMW-12-201403	3/8/2014	1910	148	3.4	
ITMW-12	ITMW-12-201403-FD	3/8/2014	2400	207	3.4	
ITMW-12	ITMW-12-201405	5/14/2014	2740	164	14.0	
ITMW-12	ITMW-12-201407	7/31/2014	2710	173	13.6	
ITMW-12	DUP-04-201410	10/15/2014	2950	192	3.7	
ITMW-12	ITMW-12-201410	10/15/2014	2570	188	3.5	
ITMW-12	ITMW-12-20141204	12/4/2014	468	51.1	0.88	J
ITMW-12	DUP-04-201501	1/15/2015	59.3	4.8	< 0.50	U
ITMW-12	ITMW-12-201501	1/15/2015	57.1	4.2	< 0.50	U
ITMW-12	ITMW-12-201504	4/15/2015	2260	149	< 0.13	U
ITMW-12	ITMW-12-201507	7/23/2015	652	46.2	0.58	J
ITMW-12	ITMW-12-201510	10/7/2015	314	34.6	0.42	J
ITMW-12	ITMW-12-201601	1/13/2016	465	70.5	< 0.13	U
ITMW-12	ITMW-12-201605	5/5/2016	675	78.9	< 0.13	U
ITMW-13	ITMW-13-19901101	11/1/1990	34		18	
ITMW-13	ITMW-13-19910201	2/1/1991	32		35	
ITMW-13	ITMW-13-19931101	11/1/1993			29	
ITMW-13	ITMW-13-19961201	12/1/1996	36		36	
ITMW-13	ITMW-13-19990201	2/1/1999	36	140	48	
ITMW-13	ITMW-13-20000301	3/1/2000	37	121	53	
ITMW-13	ITMW-13-20000919	9/19/2000	22.4	112	50.5	
ITMW-13	ITMW-13-20010328	3/28/2001	44	92	40	
ITMW-13	ITMW-13-20010913	9/13/2001	35	111	80	
ITMW-13	ITMW-13L-20020909	9/9/2002	99	110	10	
ITMW-13	ITMW-13T-20020909	9/9/2002	81	86	20	
ITMW-13	ITMW-13-20030226	2/26/2003	70.2	85.5	< 10	U
ITMW-13	ITMW-13-20030924	9/24/2003	159	130	< 10	U
ITMW-13	ITMW-13-20040413	4/13/2004	48.4	87.2	< 10	U
ITMW-13	ITMW-13-20040921	9/21/2004	25.5	71.6	< 10	U
ITMW-13	ITMW-13-20050407	4/7/2005	71.8	103	< 10	U
ITMW-13	ITMW-13-20050930	9/30/2005	72.7	114	17.9	
ITMW-13	ITMW-13-20060316	3/16/2006	141	187	< 10	U
ITMW-13	ITMW-13-20061014	10/14/2006	100	150	17	
ITMW-13	ITMW-13-20070418	4/18/2007	83.1	78	4.3	J
ITMW-13	ITMW-13-20070920	9/20/2007	28	40	< 10	U
ITMW-13	ITMW-13-20080429	4/29/2008	69	72	< 10	U
ITMW-13	ITMW-13-20081210	12/10/2008	26	23	< 5	U
ITMW-13	ITMW-13-20090427	4/27/2009	79	78	< 5	U
ITMW-13	ITMW-13-20091027	10/27/2009	18	22	< 5	U
ITMW-13	ITMW-13-20100512	5/12/2010	97	72	< 5	U
ITMW-13	ITMW-13-20110323	3/23/2011	130	83	< 5	U
ITMW-13	ITMW-13-20111027-FD	10/27/2011	64	40	< 5	U
ITMW-13	ITMW-13-20111027	10/27/2011	65	41	< 5	U
ITMW-13	ITMW-13-20120419	4/19/2012	97	63	< 5	U
ITMW-13	ITMW-13-20121018	10/18/2012	400	260	1.0	J
ITMW-13	ITMW-13-20130425	4/25/2013	86	52	0.14	J

TABLE 7
HISTORICAL SUMMARY OF GROUNDWATER CONCENTRATIONS FOR TCE AND DAUGHTER-PRODUCTS
Whirlpool Facility - Fort Smith, Arkansas

Well ID	Sample Name	Date	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride
ITMW-13	ITMW-13-101613	10/16/2013	150	74	< 0.11 U
ITMW-13	ITMW-13-201403	3/8/2014	69.3	45.3	< 0.13 U
ITMW-13	ITMW-13-201405	5/14/2014	54.0	34.7	0.17 J
ITMW-13	ITMW-13-201407	7/30/2014	36.5	27.5	< 0.50 U
ITMW-13	ITMW-13-201410	10/15/2014	40.8	25.9	< 0.50 U
ITMW-13	ITMW-13-201501	1/14/2015	45.8	28.5	< 0.50 U
ITMW-13	ITMW-13-201504	4/15/2015	43.1	26.5	< 0.50 U
ITMW-13	DUP-03-201504	4/15/2015	47.7	26.7	< 0.50 U
ITMW-13	DUP-02-201507	7/22/2015	36.1	20.8	0.17 J
ITMW-13	ITMW-13-201507	7/22/2015	37.3	20.1	0.18 J
ITMW-13	DUP-01-201510	10/7/2015	25.5	17.6	0.18 J
ITMW-13	ITMW-13-201510	10/7/2015	29.9	17.8	0.20 J
ITMW-13	ITMW-13-201601	1/13/2016	47.6	26.7	0.17 J
ITMW-13	DUP-02-201601	1/13/2016	51.6	26.1	< 0.13 U
ITMW-13	ITMW-13-201605	5/5/2016	41.9	20.8	0.17 J
ITMW-14	ITMW-14-19901101	11/1/1990	ND		13
ITMW-14	ITMW-14-19910201	2/1/1991	ND		ND
ITMW-14	ITMW-14-19931101	11/1/1993	6		ND
ITMW-14	ITMW-14-19961201	12/1/1996	ND		ND
ITMW-14	ITMW-14-19990201	2/1/1999	ND	29	20
ITMW-14	ITMW-14-20000301	3/1/2000	ND	24	12
ITMW-14	ITMW-14-20000919	9/19/2000	< 5 U	13.6	< 10 U
ITMW-14	ITMW-14-20010327	3/27/2001	< 5 U	24	10
ITMW-14	ITMW-14-20010913	9/13/2001	< 5 U	5	< 10 U
ITMW-14	ITMW-14-20020911	9/11/2002	41	6	< 10 U
ITMW-14	ITMW-14-20030226	2/26/2003	< 5 U	< 5 U	< 10 U
ITMW-14	ITMW-14-20030924	9/24/2003	< 5 U	< 5 U	< 10 U
ITMW-14	ITMW-14-20040413	4/13/2004	< 5 U	< 5 U	< 10 U
ITMW-14	ITMW-14-20040921	9/21/2004	< 5 U	< 5 U	< 10 U
ITMW-14	ITMW-14-20050930	9/30/2005	< 5 U	< 5 U	< 10 U
ITMW-14	ITMW-14-20061014	10/14/2006	4 J	8	< 10 UJ
ITMW-14	ITMW-14-20070921	9/21/2007	5 J	9	< 10 U
ITMW-14	ITMW-14-20081210	12/10/2008	5.7	9.3	< 5 U
ITMW-14	ITMW-14-20101104	11/4/2010	110	14	< 5 U
ITMW-14	ITMW-14-20111027	10/27/2011	6.3	11	< 5 U
ITMW-14	ITMW-14-20120419	4/19/2012	7.6	16	< 5 U
ITMW-14	ITMW-14-20121019	10/19/2012	5.4	11	< 0.11 U
ITMW-14	ITMW-14-20130425	4/25/2013	6.8	14	< 0.11 U
ITMW-14	ITMW-14-101613	10/16/2013	2.9 J	4.9 J	< 0.11 U
ITMW-14	ITMW-14-201403	3/8/2014	6.1	11.9	< 0.13 U
ITMW-14	ITMW-14-201405	5/14/2014	5.3	11.3	< 0.13 U
ITMW-14	ITMW-14-201407	7/30/2014	4.0 J	9.2	< 0.50 U
ITMW-14	ITMW-14-201410	10/15/2014	4.1 J	9.4	< 0.50 U
ITMW-14	ITMW-14-201501	1/14/2015	4.9	11.5	< 0.50 U
ITMW-14	ITMW-14-201504	4/15/2015	5.0	10.7	< 0.50 U
ITMW-14	ITMW-14-201507	7/22/2015	4.3	9.6	< 0.13 U
ITMW-14	ITMW-14-201510	10/7/2015	4.6	9.8	< 0.13 U
ITMW-14	ITMW-14-201601	1/12/2016	4.3	10	< 0.13 U
ITMW-14	ITMW-14-201605	5/5/2016	3.9	8.6	< 0.13 U
ITMW-15	ITMW-15-19901101	11/1/1990	2500		55
ITMW-15	ITMW-15-19910201	2/1/1991	1700		ND
ITMW-15	ITMW-15-19910415	4/15/1991	2000		ND
ITMW-15	ITMW-15-19910419	4/19/1991	2100		ND
ITMW-15	ITMW-15-19910420	4/20/1991	2400		ND
ITMW-15	ITMW-15-19931101	11/1/1993	4300		10
ITMW-15	ITMW-15-19961201	12/1/1996	240		ND
ITMW-15	ITMW-15-19990201	2/1/1999	400	120	ND
ITMW-15	ITMW-15-20000301	3/1/2000	339	97	ND
ITMW-15	ITMW-15-20000919	9/19/2000	362	92.7	< 10 U
ITMW-15	ITMW-15-20000919-FD	9/19/2000	376	91	< 10 U
ITMW-15	ITMW-15-20010328	3/28/2001	290	57	< 10 U
ITMW-15	ITMW-15-20010913	9/13/2001	380	87	< 10 U
ITMW-15	ITMW-15-20010913-FD	9/13/2001	370	80	< 10 U
ITMW-15	ITMW-15-20011120	11/20/2001	157	30	< 10 U
ITMW-15	ITMW-15-20020911	9/11/2002	320	75	< 10 U
ITMW-15	ITMW-15-20030226	2/26/2003	301	98.7	< 10 U
ITMW-15	ITMW-15-20030925	9/25/2003	490	91.9	< 10 U
ITMW-15	ITMW-15-20040414	4/14/2004	334	126	< 10 U
ITMW-15	ITMW-15-20040921	9/21/2004	774	118	< 10 U
ITMW-15	ITMW-15-20050407	4/7/2005	685	133	< 10 U
ITMW-15	ITMW-15-20050929	9/29/2005	862	189	< 10 U
ITMW-15	ITMW-15-20060316	3/16/2006	908	183	12
ITMW-15	ITMW-15-20061013	10/13/2006	680	140	7 J
ITMW-15	ITMW-15-20070419	4/19/2007	591	110	8.5 J
ITMW-15	ITMW-15-20070921	9/21/2007	1000	190	27
ITMW-15	ITMW-15-20080429	4/29/2008	100	18	< 10 U
ITMW-15	ITMW-15-20081210	12/10/2008	1100	150	< 5 U
ITMW-15	ITMW-15-20090427	4/27/2009	2800	130	17

TABLE 7
HISTORICAL SUMMARY OF GROUNDWATER CONCENTRATIONS FOR TCE AND DAUGHTER-PRODUCTS
Whirlpool Facility - Fort Smith, Arkansas

Well ID	Sample Name	Date	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride
ITMW-15	ITMW-15-20100511	5/11/2010	2800	160	11
ITMW-15	ITMW-15-20111026	10/26/2011	1100	74	< 5 U
ITMW-15	ITMW-15-20121019	10/19/2012	240	14	1.1 J
ITMW-15	ITMW-15-101613	10/16/2013	2800	170	14
ITMW-15	ITMW-15-201403	3/8/2014	1630	152	11.6
ITMW-15	DUP2-201405	5/14/2014	899	61.7	4.4
ITMW-15	ITMW-15-201405	5/14/2014	729	60.7	4.1
ITMW-15	DUP-4-201407	7/30/2014	1850	82.8	3.0
ITMW-15	ITMW-15-201407	7/30/2014	1820	82.5	3.1
ITMW-15	DUP-05-201410	10/16/2014	1660	66.4	1.8 J
ITMW-15	ITMW-15-201410	10/16/2014	1490	63.0	2.0
ITMW-15	ITMW-15-20141205	12/5/2014	63.0	< 0.50 U	< 0.50 U
ITMW-15	DUP-05-201501	1/15/2015	61.7	3.8	< 0.50 U
ITMW-15	ITMW-15-201501	1/15/2015	56.5	2.9	< 0.50 U
ITMW-15	ITMW-15-201504	4/15/2015	101	7.5	< 0.50 U
ITMW-15	ITMW-15-201507	7/22/2015	110	22.4	1.3
ITMW-15	ITMW-15-201510	10/8/2015	38.9	2.4	< 0.13 U
ITMW-15	ITMW-15-201601	1/13/2016	797	67.0	4.9
ITMW-15	ITMW-15-201605	5/5/2016	659	48.8	5.8
ITMW-16	ITMW-16-19910201	2/1/1991	31		ND
ITMW-16	ITMW-16-19931101	11/1/1993	41		7
ITMW-16	ITMW-16-19961201	12/1/1996	ND		ND
ITMW-16	ITMW-16-19990201	2/1/1999	ND	ND	ND
ITMW-16	ITMW-16-20000301	3/1/2000	7	ND	ND
ITMW-16	ITMW-16-20000921	9/21/2000	< 5 U	< 5 U	< 10 U
ITMW-16	ITMW-16-20010326	3/26/2001	< 5 U	< 5 U	< 10 U
ITMW-16	ITMW-16-20010913	9/13/2001	< 5 U	< 5 U	< 10 U
ITMW-16	ITMW-16-20020911	9/11/2002	< 5 U	< 5 U	< 10 U
ITMW-16	ITMW-16-20030227	2/27/2003	< 5 U	< 5 U	< 10 U
ITMW-16	ITMW-16-20030925	9/25/2003	< 5 U	< 5 U	< 10 U
ITMW-16	ITMW-16-20040415	4/15/2004	< 5 U	< 5 U	< 10 U
ITMW-16	ITMW-16-20040923	9/23/2004	< 5 U	< 5 U	< 10 U
ITMW-16	ITMW-16-20050929	9/29/2005	< 5 U	< 5 U	< 10 U
ITMW-16	ITMW-16-20050929-FD	9/29/2005	< 5 U	< 5 U	< 10 U
ITMW-16	ITMW-16-20061014	10/14/2006	< 5 U	< 5 U	< 10 U
ITMW-16	ITMW-16-20070920	9/20/2007	< 5 U	< 5 U	< 10 U
ITMW-16	ITMW-16-20081210	12/10/2008	< 5 U	< 5 U	< 5 U
ITMW-16	ITMW-16-20101106	11/6/2010	17	< 5 U	< 5 U
ITMW-16	ITMW-16-20111027	10/27/2011	< 5 U	< 5 U	< 5 U
ITMW-16	ITMW-16-20120418	4/18/2012	< 5 U	< 5 U	< 5 U
ITMW-16	ITMW-16-20121018	10/18/2012	< 1.6 U	< 0.56 U	< 0.11 U
ITMW-16	ITMW-16-20130424	4/24/2013	< 1.6 U	< 0.56 U	< 0.11 U
ITMW-16	ITMW-16-101613	10/16/2013	< 1.6 U	< 0.56 U	< 0.11 U
ITMW-16	ITMW-16-201403	3/7/2014	0.30 J	< 0.080 U	< 0.13 U
ITMW-16	ITMW-16-201405	5/13/2014	< 0.17 U	< 0.080 U	< 0.13 U
ITMW-16	ITMW-16-201407	7/30/2014	< 0.50 U	< 0.50 U	< 0.50 U
ITMW-16	ITMW-16-201410	10/15/2014	< 0.50 U	< 0.50 U	< 0.50 U
ITMW-16	ITMW-16-201501	1/14/2015	< 0.50 U	< 0.50 U	< 0.50 U
ITMW-16	ITMW-16-201504	4/14/2015	< 0.50 U	< 0.50 U	< 0.50 U
ITMW-16	ITMW-16-201507	7/22/2015	< 0.17 U	< 0.080 U	< 0.13 U
ITMW-16	ITMW-16-201510	10/7/2015	< 0.17 U	< 0.080 U	< 0.13 U
ITMW-16	ITMW-16-201601	1/13/2016	< 0.17 U	< 0.080 U	< 0.13 U
ITMW-16	ITMW-16-201605	5/5/2016	< 0.17 U	< 0.080 U	< 0.13 U
ITMW-16	ITMW-16-201611	11/9/2016	< 0.17 U	< 0.080 U	< 0.13 U
ITMW-17	ITMW-17-19910201	2/1/1991	21000		ND
ITMW-17	ITMW-17-19910415	4/15/1991	21000		ND
ITMW-17	ITMW-17-19910424	4/24/1991	21000		ND
ITMW-17	ITMW-17-19931101	11/1/1993	18000		15
ITMW-17	ITMW-17-19961201	12/1/1996	9300		ND
ITMW-17	ITMW-17-19990201	2/1/1999	11000	240	ND
ITMW-17	ITMW-17-20000301	3/1/2000	6780	171	ND
ITMW-17	ITMW-17-20000919	9/19/2000	5500	180	< 10 U
ITMW-17	ITMW-17-20010105	1/5/2001	8310	179	< 10 U
ITMW-17	ITMW-17-20010328	3/28/2001	6700	134	< 10 U
ITMW-17	ITMW-17-20010913	9/13/2001	6300	158	< 10 U
ITMW-17	ITMW-17-20020911	9/11/2002	6500	153	< 10 U
ITMW-17	ITMW-17-20030226	2/26/2003	4380	134	< 10 U
ITMW-17	ITMW-17-20030925	9/25/2003	6090	136	< 10 U
ITMW-17	ITMW-17-20040414	4/14/2004	5050	184	< 10 U
ITMW-17	ITMW-17-20040414-FD	4/14/2004	4920	182	< 10 U
ITMW-17	ITMW-17-20040921	9/21/2004	5760	156	< 10 U
ITMW-17	ITMW-17-20050407	4/7/2005	5750	156	< 10 U
ITMW-17	ITMW-17-20050929	9/29/2005	5460	111	< 10 U
ITMW-17	ITMW-17-20060315	3/15/2006	15900	211 E	26.3
ITMW-17	ITMW-17-20061012	10/12/2006	19000	220	21
ITMW-17	ITMW-17-20070418	4/18/2007	13000	298	< 10 U
ITMW-17	ITMW-17-20070921	9/21/2007	11000	210	3 J
ITMW-17	ITMW-17-20080429	4/29/2008	6200	140	< 10 U

TABLE 7
HISTORICAL SUMMARY OF GROUNDWATER CONCENTRATIONS FOR TCE AND DAUGHTER-PRODUCTS
Whirlpool Facility - Fort Smith, Arkansas

Well ID	Sample Name	Date	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride	
ITMW-17	ITMW-17-20081210	12/10/2008	5600	130	< 5	U
ITMW-17	ITMW-17-20090427	4/27/2009	5200	130	< 5	U
ITMW-17	ITMW-17-20100511	5/11/2010	4500	85	< 5	U
ITMW-17	ITMW-17-20101104	11/4/2010	5400	110	< 5	U
ITMW-17	ITMW-17-20110322	3/22/2011	5300	100	< 5	U
ITMW-17	ITMW-17-20111026	10/26/2011	4500	98	< 5	U
ITMW-17	ITMW-17-20120419	4/19/2012	4700	110	< 5	U
ITMW-17	ITMW-17-20121019	10/19/2012	3500	100	0.48	J
ITMW-17	ITMW-17-20130425	4/25/2013	5600	130	0.90	J
ITMW-17	ITMW-17-101713	10/17/2013	4800	79	< 0.11	U
ITMW-17	ITMW-17-201403	3/8/2014	3770	86.1	0.57	J
ITMW-17	ITMW-17-201403-FD	3/8/2014	4040	87.3	0.74	J
ITMW-17	DUP-3-201405	5/15/2014	3370	88.5	1.1	J
ITMW-17	ITMW-17-201405	5/15/2014	3630	82.9	1.3	J
ITMW-17	ITMW-17-201407	7/30/2014	2260	64.7	< 0.50	U
ITMW-17	ITMW-17-201410	10/16/2014	3510	70.5	3.2	
ITMW-17	ITMW-17-20141205	12/5/2014	4630	210 J	7.7	
ITMW-17	ITMW-17-201501	1/15/2015	3840	110	1.5	
ITMW-17	ITMW-17-201504	4/15/2015	3920	142	< 0.13	U
ITMW-17	ITMW-17-201507	7/22/2015	5350	116	0.51	J
ITMW-17	ITMW-17-201510	10/8/2015	3970	77.2	2.5	
ITMW-17	ITMW-17-201601	1/13/2016	2600	44.7	2.2	
ITMW-17	ITMW-17-201605	5/5/2016	2720	77.7	< 6.5	U
ITMW-18	ITMW-18-19910201	2/1/1991	3700			ND
ITMW-18	ITMW-18-19931101	11/1/1993	4500		6	
ITMW-18	ITMW-18-19961201	12/1/1996	1600			ND
ITMW-18	ITMW-18-19990201	2/1/1999	6300	480		ND
ITMW-18	ITMW-18-20000301	3/1/2000	3560	401		ND
ITMW-18	ITMW-18-20000919	9/19/2000	4080	409	< 10	U
ITMW-18	ITMW-18-20010327	3/27/2001	4000	400	< 10	U
ITMW-18	ITMW-18-20010327-FD	3/27/2001	4200	370	< 100	U
ITMW-18	ITMW-18-20010911	9/11/2001	4100	300	< 10	U
ITMW-18	ITMW-18-20020911	9/11/2002	6700	300	< 10	U
ITMW-18	ITMW-18-20030226	2/26/2003	5110	290	< 10	U
ITMW-18	ITMW-18-20030924	9/24/2003	7700	415	< 10	U
ITMW-18	ITMW-18-20040413	4/13/2004	7740	410	< 10	U
ITMW-18	ITMW-18-20040921	9/21/2004	7050	380	< 10	U
ITMW-18	ITMW-18-20050408	4/8/2005	7080	389	< 10	U
ITMW-18	ITMW-18-20050929	9/29/2005	4660	241	< 10	U
ITMW-18	ITMW-18-20060315	3/15/2006	5750	373	< 50	U
ITMW-18	ITMW-18-20061013	10/13/2006	6600	300	< 10	U
ITMW-18	ITMW-18-20070418	4/18/2007	15000	387	< 10	U
ITMW-18	ITMW-18-20070921	9/21/2007	8300	310	< 100	U
ITMW-18	ITMW-18-20080430	4/30/2008	9000	350	< 10	U
ITMW-18	ITMW-18-20081209	12/9/2008	7200	320	< 5	U
ITMW-18	ITMW-18-20090427	4/27/2009	7100	320	< 5	U
ITMW-18	ITMW-18-20091027	10/27/2009	7800	360	< 5	U
ITMW-18	ITMW-18-20100511	5/11/2010	11000	360	< 5	U
ITMW-18	ITMW-18-20111026	10/26/2011	8500	290	< 5	U
ITMW-18	ITMW-18-20120419	4/19/2012	9800	360	2.9	J
ITMW-18	ITMW-18-20121019	10/19/2012	7600	260	1.2	J
ITMW-18	ITMW-18-20130425	4/25/2013	7200	270	0.90	J
ITMW-18	ITMW-18-101713	10/17/2013	7000	280	0.64	J
ITMW-18	ITMW-18-201403	3/8/2014	9380	285	< 6.5	U
ITMW-18	ITMW-18-201403-FD	3/8/2014	8550	242 J	1.7	J
ITMW-18	DUP-5-201405	5/15/2014	2500	108	< 0.13	U
ITMW-18	ITMW-18-201405	5/15/2014	2940	101	< 0.13	U
ITMW-18	ITMW-18-201407	7/31/2014	5360	139	1.6	J
ITMW-18	ITMW-18-201410	10/15/2014	3540	68.5	< 0.50	U
ITMW-18	ITMW-18-20141204	12/4/2014	3690	74.3	< 0.50	U
ITMW-18	ITMW-18-201501	1/15/2015	488	26.5	< 0.50	U
ITMW-18	DUP-04-201504	4/16/2015	42.8	1.7	< 0.50	U
ITMW-18	ITMW-18-201504	4/16/2015	43.5	1.6	< 0.50	U
ITMW-18	DUP-07-201507	7/23/2015	24.7	0.81 J	< 0.13	U
ITMW-18	ITMW-18-201507	7/23/2015	22.9	0.69 J	< 0.13	U
ITMW-18	DUP-06-201510	10/8/2015	12.4	0.41 J	< 0.13	U
ITMW-18	ITMW-18-201510	10/8/2015	12.9	0.40 J	< 0.13	U
ITMW-18	ITMW-18-201601	1/13/2016	48.8	4.6	< 0.13	U
ITMW-18	ITMW-18-201605	5/5/2016	13.9	0.49 J	< 0.13	U
ITMW-18	ITMW-18-201611	11/9/2016	10.1	< 0.080 U	< 0.13	U
ITMW-19	ITMW-19-19910201	2/1/1991	9900			ND
ITMW-19	ITMW-19-19931101	11/1/1993	27000		7	
ITMW-19	ITMW-19-19961201	12/1/1996	25000			ND
ITMW-19	ITMW-19-19990201	2/1/1999	33000	150		ND
ITMW-19	ITMW-19-20000301	3/1/2000	33100	128		ND
ITMW-19	ITMW-19-20000919	9/19/2000	35700	197	< 10	U
ITMW-19	ITMW-19-20010105	1/5/2001	34000	166	< 10	U
ITMW-19	ITMW-19-20010328	3/28/2001	38000	119	< 10	U

TABLE 7
HISTORICAL SUMMARY OF GROUNDWATER CONCENTRATIONS FOR TCE AND DAUGHTER-PRODUCTS
Whirlpool Facility - Fort Smith, Arkansas

Well ID	Sample Name	Date	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride
ITMW-19	ITMW-19-20010913	9/13/2001	19000	132	< 10 U
ITMW-19	ITMW-19-20020911	9/11/2002	27000	167	< 10 U
ITMW-19	ITMW-19-20030226	2/26/2003	16200	126	< 10 U
ITMW-19	ITMW-19-20030924	9/24/2003	27300	186	< 10 U
ITMW-19	ITMW-19-20040413	4/13/2004	19400	186	< 10 U
ITMW-19	ITMW-19-20040921	9/21/2004	20000	148	< 10 U
ITMW-19	ITMW-19-20050407	4/7/2005	18300	146	< 10 U
ITMW-19	ITMW-19-20050407-FD	4/7/2005	16200	145	< 10 U
ITMW-19	ITMW-19-20050929	9/29/2005	25700	144	< 10 U
ITMW-19	ITMW-19-20060315	3/15/2006	21300	177	< 100 U
ITMW-19	ITMW-19-20061012	10/12/2006	16000	150	2 J
ITMW-19	ITMW-19-20070418	4/18/2007	20000	131	< 10 U
ITMW-19	ITMW-19-20070921	9/21/2007	19000	110	< 200 U
ITMW-19	ITMW-19-20080429	4/29/2008	17000	98	< 100 U
ITMW-19	ITMW-19-20081210	12/10/2008	11000	93	< 5 U
ITMW-19	ITMW-19-20090427	4/27/2009	13000	100	< 5 U
ITMW-19	ITMW-19-20100511	5/11/2010	19000	130	< 5 U
ITMW-19	ITMW-19-20101104-FD	11/4/2010	19000	150	< 5 U
ITMW-19	ITMW-19-20101104	11/4/2010	18000	140	< 5 U
ITMW-19	ITMW-19-20110322	3/22/2011	16000	110	1 J
ITMW-19	ITMW-19-20111026	10/26/2011	17000	120	< 5 U
ITMW-19	ITMW-19-20120419-FD	4/19/2012	15000	110	< 5 U
ITMW-19	ITMW-19-20120419	4/19/2012	18000	110	< 5 U
ITMW-19	ITMW-19-20121019	10/19/2012	15000	110	0.89 J
ITMW-19	ITMW-19-20130425	4/25/2013	13000	110	0.57 J
ITMW-19	ITMW-19-101813	10/18/2013	16000	91 J	< 0.11 U
ITMW-19	ITMW-19-10182013-FD	10/18/2013	14000	100 J	< 0.11 U
ITMW-19	ITMW-19-201403	3/8/2014	8850	66.7	0.57 J
ITMW-19	ITMW-19-201403-FD	3/8/2014	8270	60.8 J	< 6.5 U
ITMW-19	DUP-6-201405	5/15/2014	15300 J	67.2	0.87 J
ITMW-19	ITMW-19-201405	5/15/2014	9780 J	65.8	0.85 J
ITMW-19	ITMW-19-201407	7/31/2014	13300	85.5	0.96 J
ITMW-19	ITMW-19-201410	10/16/2014	12800	76.7	1.9 J
ITMW-19	ITMW-19-20141205	12/5/2014	33.5	< 0.50 U	< 0.50 U
ITMW-19	ITMW-19-201501	1/15/2015	17.4	< 0.50 U	< 0.50 U
ITMW-19	ITMW-19-201504	4/15/2015	594	2.2	< 0.50 U
ITMW-19	ITMW-19-201507	7/23/2015	15.2	< 0.080 U	< 0.13 U
ITMW-19	ITMW-19-201510	10/8/2015	87.1	0.41 J	< 0.13 U
ITMW-19	ITMW-19-201601	1/13/2016	336	1.2	< 0.13 U
ITMW-19	ITMW-19-201605	5/5/2016	105	0.28 J	< 0.13 U
ITMW-19	ITMW-19-201611	11/9/2016	137	< 0.080 U	< 0.13 U
ITMW-20	ITMW-20-19910301	3/1/1991	ND		ND
ITMW-20	ITMW-20-19931101	11/1/1993	ND		ND
ITMW-20	ITMW-20-19961201	12/1/1996	290		ND
ITMW-20	ITMW-20-19970501	5/1/1997	ND	ND	ND
ITMW-20	ITMW-20-19990201	2/1/1999	ND	ND	ND
ITMW-20	ITMW-20-20000301	3/1/2000	ND	ND	ND
ITMW-20	MW-20-20000921-FS	9/21/2000	< 5 U	< 5 U	< 10 U
ITMW-20	MW-20-20010327-FS	3/27/2001	< 5 U	< 5 U	< 10 U
ITMW-20	MW-20-20010911-FS	9/11/2001	21	< 5 U	< 10 U
ITMW-20	ITMW-20-20020910	9/10/2002	< 5 U	< 5 U	< 10 U
ITMW-20	ITMW-20-20030227	2/27/2003	< 5 U	< 5 U	< 10 U
ITMW-20	ITMW-20-20030924	9/24/2003	< 5 U	< 5 U	< 10 U
ITMW-20	ITMW-20-20040414	4/14/2004	< 5 U	< 5 U	< 10 U
ITMW-20	ITMW-20-20040922	9/22/2004	< 5 U	< 5 U	< 10 U
ITMW-20	ITMW-20-20050929	9/29/2005	< 5 U	< 5 U	< 10 U
ITMW-20	ITMW-20-20061012	10/12/2006	< 5 U	< 5 U	< 10 U
ITMW-20	ITMW-20-20070919	9/19/2007	< 5 U	< 5 U	< 10 U
ITMW-20	ITMW-20-20081210	12/10/2008	< 5 U	< 5 U	< 5 U
ITMW-20	ITMW-20-20091029	10/29/2009	< 5 U	< 5 U	< 5 U
ITMW-20	ITMW-20-20100512	5/12/2010	< 5 U	< 5 U	< 5 U
ITMW-20	ITMW-20-20101105	11/5/2010	15	< 5 U	< 5 U
ITMW-20	ITMW-20-20111026-FD	10/26/2011	< 5 U	< 5 U	< 5 U
ITMW-20	ITMW-20-20111026	10/26/2011	< 5 U	< 5 U	< 5 U
ITMW-20	ITMW-20-20120418	4/18/2012	< 5 U	< 5 U	< 5 U
ITMW-20	ITMW-20-20121018	10/18/2012	< 1.6 U	< 0.56 U	< 0.11 U
ITMW-20	ITMW-20-20130423	4/23/2013	< 1.6 U	< 0.56 U	< 0.11 U
ITMW-20	ITMW-20-101413	10/14/2013	< 1.6 U	< 0.56 U	< 0.11 U
ITMW-20	ITMW-20-201403	3/5/2014	< 0.17 U	< 0.080 U	0.15 J
ITMW-20	ITMW-20-201405	5/12/2014	0.21 J	< 0.080 U	< 0.13 U
ITMW-20	ITMW-20-201407	7/30/2014	< 0.50 U	< 0.50 U	< 0.50 U
ITMW-20	ITMW-20-201410	10/15/2014	< 0.50 U	< 0.50 U	< 0.50 U
ITMW-20	ITMW-20-201501	1/12/2015	< 0.50 U	< 0.50 U	< 0.50
ITMW-20	ITMW-20-201504	4/13/2015	< 0.50 U	< 0.50 U	< 0.50
ITMW-20	ITMW-20-201507	7/22/2015	0.20 J	< 0.080 U	< 0.13 U
ITMW-20	ITMW-20-201510	10/7/2015	< 0.17 U	< 0.080 U	< 0.13 U
ITMW-20	ITMW-20-201601	1/12/2016	< 0.17 U	< 0.080 U	< 0.13 U
ITMW-20	ITMW-20-201605	5/2/2016	< 0.17	< 0.080 U	< 0.13 U

TABLE 7
HISTORICAL SUMMARY OF GROUNDWATER CONCENTRATIONS FOR TCE AND DAUGHTER-PRODUCTS
Whirlpool Facility - Fort Smith, Arkansas

Well ID	Sample Name	Date	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride
ITMW-20	ITMW-20-201611	11/9/2016	< 0.17 U	< 0.080 U	< 0.13 U
ITMW-21	ITMW-21-19910301	3/1/1991	21		ND
ITMW-21	ITMW-21-19931101	11/1/1993	37		ND
ITMW-21	ITMW-21-19961201	12/1/1996	150		ND
ITMW-21	ITMW-21-19990201	2/1/1999	190	ND	ND
ITMW-21	ITMW-21-20000301	3/1/2000	196	ND	ND
ITMW-21	ITMW-21-20000919	9/19/2000	192	< 5 U	< 10 U
ITMW-21	ITMW-21-20010328	3/28/2001	123	< 5 U	< 10 U
ITMW-21	ITMW-21-20010913	9/13/2001	116	< 5 U	< 10 U
ITMW-21	ITMW-21-20020910	9/10/2002	13	< 5 U	< 10 U
ITMW-21	ITMW-21-20030226	2/26/2003	39.5	< 5 U	< 10 U
ITMW-21	ITMW-21-20030923	9/23/2003	9.09	< 5 U	< 10 U
ITMW-21	ITMW-21-20040414	4/14/2004	52.9	< 5 U	< 10 U
ITMW-21	ITMW-21-20040922	9/22/2004	7.8	< 5 U	< 10 U
ITMW-21	ITMW-21-20050928	9/28/2005	6.45	< 5 U	< 10 U
ITMW-21	ITMW-21-20061012	10/12/2006	9	< 5 U	< 10 U
ITMW-21	ITMW-21-20070921	9/21/2007	10	< 5 U	< 10 U
ITMW-21	ITMW-21-20081209	12/9/2008	15	< 5 U	< 5 U
ITMW-21	ITMW-21-20091027	10/27/2009	14	< 5 U	< 5 U
ITMW-21	ITMW-21-20101104	11/4/2010	1100	4.4 J	< 5 U
ITMW-21	ITMW-21-20110322	3/22/2011	24	< 5 U	< 5 U
ITMW-21	ITMW-21-20111025	10/25/2011	11	< 5 U	< 5 U
ITMW-21	ITMW-21-20120417	4/17/2012	30	< 5 U	< 5 U
ITMW-21	ITMW-21-20121019	10/19/2012	7.7	< 0.56 U	< 0.11 U
ITMW-21	ITMW-21-20130424	4/24/2013	18	< 0.56 U	< 0.11 U
ITMW-21	ITMW-21-101513	10/15/2013	20	< 0.56 U	< 0.11 U
ITMW-21	ITMW-21-201403	3/6/2014	14.8	< 0.080 U	< 0.13 U
ITMW-21	ITMW-21-201405	5/14/2014	17.6	< 0.080 U	< 0.13 U
ITMW-21	DUP-3-201407	7/30/2014	9.3	< 0.50 U	< 0.50 U
ITMW-21	ITMW-21-201407	7/30/2014	9.4	< 0.50 U	< 0.50 U
ITMW-21	ITMW-21-201410	10/15/2014	6.0	< 0.50 U	< 0.50 U
ITMW-21	ITMW-21-201501	1/14/2015	10.8	< 0.50 U	< 0.50 U
ITMW-21	ITMW-21-201504	4/14/2015	12.7	< 0.50 U	< 0.50 U
ITMW-21	ITMW-21-201507	7/22/2015	7.6	0.20 J	< 0.13 U
ITMW-21	ITMW-21-201510	10/8/2015	7.2	0.29 J	< 0.13 U
ITMW-21	ITMW-21-201601	1/13/2016	9.8	0.27 J	< 0.13 U
ITMW-21	ITMW-21-201605	5/5/2016	11.1	0.30 J	< 0.13 U
ITMW-21	ITMW-21-201611	11/9/2016	8.1	< 0.080 U	< 0.13 U
IW-72	IW-72-20090116	1/16/2009	27	< 5 U	< 5 U
IW-72	IW-72-20090423	4/23/2009	40	< 5 U	< 5 U
IW-72	IW-72-20090508	5/8/2009	40	< 5 U	< 5 U
IW-72	IW-72-20110303-FS	3/3/2011	3.1 J	< 0.56 U	< 0.85 U
IW-72	IW-72-20110519-FS	5/19/2011	< 1.6 U	< 0.56 U	
IW-72	IW-72-20111024	10/24/2011	< 5 U	< 5 U	< 5 U
IW-72	IW-72-20120417	4/17/2012	3.8 J	< 5 U	< 5 U
IW-72	IW-72-20121019	10/19/2012	< 1.6 U	< 0.56 U	< 0.11 U
IW-72	IW-72-20130424	4/24/2013	< 1.6 U	< 0.56 U	< 0.11 U
IW-72	IW-72-101513	10/15/2013	< 1.6 U	< 0.56 U	< 0.11 U
IW-72	IW-72-201403	3/6/2014	< 0.17 U	< 0.080 U	< 0.13 U
IW-72	IW-72-201405	5/12/2014	< 0.17 U	< 0.080 U	< 0.13 U
IW-72	IW-72-201407	7/29/2014	< 0.50 U	< 0.50 U	< 0.50 U
IW-72	IW-72-201410	10/13/2014	< 0.50 U	< 0.50 U	< 0.50 U
IW-72	IW-72-201501	1/12/2015	< 0.50 U	< 0.50 U	< 0.50 U
IW-72	IW-72-201504	4/15/2015	< 0.50 U	< 0.50 U	< 0.50 U
IW-72	IW-72-201507	7/20/2015	0.48 J	< 0.080 U	< 0.13 U
IW-72	IW-72-201510	10/6/2015	0.74 J	< 0.080 U	< 0.13 U
IW-72	IW-72-201601	1/12/2016	1.4	< 0.080 U	< 0.13 U
IW-72	IW-72-201605	5/3/2016	1.8	< 0.080 U	< 0.13 U
IW-73	IW-73-20090423	4/23/2009	400	16	< 5 U
IW-73	IW-73-20110519-FS	5/19/2011	160	3.6 J	
IW-73	IW-73-20111025	10/25/2011	250	4.9 J	< 5 U
IW-73	IW-73-20120417	4/17/2012	180	5.8	< 5 U
IW-73	IW-73-20121020	10/20/2012	170	7.0	< 0.11 U
IW-73	IW-73-20130424	4/24/2013	200	6.5	< 0.11 U
IW-73	IW-73-20130424-FD	4/24/2013	180	6.4	< 0.11 U
IW-73	IW-73-101513	10/15/2013	140	47	6.3
IW-73	IW-73-201403	3/7/2014	183	20.9	4.6
IW-73	IW-73-201405	5/14/2014	31.9	0.81 J	< 0.13 U
IW-73	IW-73-201407	7/29/2014	138	24.3	26.1
IW-73	IW-73-201410	10/14/2014	8.5	0.84 J	1.1 J
IW-73	IW-73-201501	1/14/2015	70.8	6.3	4.1
IW-73	IW-73-201504	4/15/2015	96.8	6.8	1.6
IW-73	IW-73-201507	7/21/2015	143	9.0	1.5
IW-73	IW-73-201510	10/6/2015	154	7.8	0.59 J
IW-73	IW-73-201601	1/12/2016	103	4.3	0.24 J
IW-73	IW-73-201605	5/4/2016	125	4.9	0.35 J
IW-73	DUP-01-201611	11/9/2016	116	2.8	0.21 J
IW-73	IW-73-201611	11/9/2016	113	2.5	0.16 J

TABLE 7
HISTORICAL SUMMARY OF GROUNDWATER CONCENTRATIONS FOR TCE AND DAUGHTER-PRODUCTS
Whirlpool Facility - Fort Smith, Arkansas

Well ID	Sample Name	Date	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride
IW-74	IW-74-20090423	4/23/2009	260	8.1	< 5 U
IW-74	IW-74-20110519-FS	5/19/2011	74	< 0.56 U	
IW-74	IW-74-20111025	10/25/2011	150	3.1 J	< 5 U
IW-74	IW-74-20120417	4/17/2012	130	2.4 J	< 5 U
IW-74	IW-74-20121020	10/20/2012	160	3.4 J	< 0.11 U
IW-74	IW-74-20130424	4/24/2013	160	4.8 J	< 0.11 U
IW-74	IW-74-101513	10/15/2013	190	5.7	< 0.11 U
IW-74	IW-74-201403	3/7/2014	135	4.3 J	1.5 J
IW-74	IW-74-201403-FD	3/7/2014	151	4.5 J	2.2
IW-74	IW-74-201405	5/14/2014	169	4.3 J	0.80 J
IW-74	IW-74-201407	7/29/2014	177	5.8	0.91 J
IW-74	DUP-01-201410	10/14/2014	143	3.3 J	< 0.50 U
IW-74	IW-74-201410	10/14/2014	144	3.3 J	< 0.50 U
IW-74	DUP-01-201501	1/14/2015	139	3.5	< 0.50 U
IW-74	IW-74-201501	1/14/2015	141	3.8	< 0.50 U
IW-74	DUP-05-201504	4/15/2015	153	4.8	< 0.50 U
IW-74	IW-74-201504	4/15/2015	147	5.0	< 0.50 U
IW-74	DUP-08-201507	7/21/2015	168	4.2	1.3
IW-74	IW-74-201507	7/21/2015	168	4.6	1.4
IW-74	DUP-10-201510	10/7/2015	122	3.8	0.33 J
IW-74	IW-74-201510	10/7/2015	121	3.8	0.36 J
IW-74	DUP-05-201601	1/12/2016	135	3.3	0.18 J
IW-74	IW-74-201601	1/12/2016	135	3.2	0.17 J
IW-74	DUP-07-201605	5/4/2016	108	3.2	0.42 J
IW-74	IW-74-201605	5/4/2016	122	3.5	0.44 J
IW-75	IW-75-20090116	1/16/2009	140	2.4 J	< 5 U
IW-75	IW-75-20111025	10/25/2011	< 5 U	< 5 U	< 5 U
IW-75	IW-75-20120417	4/17/2012	2.9 J	< 5 U	< 5 U
IW-75	IW-75-20121018	10/18/2012	< 1.6 U	< 0.56 U	< 0.11 U
IW-75	IW-75-101513	10/15/2013	< 1.6 U	< 0.56 U	< 0.11 U
IW-76	IW-76-20090423	4/23/2009	730	28	< 5 U
IW-76	IW-76-20090507	5/7/2009	460	28	< 5 U
IW-76	IW-76-20110304-FS	3/4/2011	380	11	< 0.85 U
IW-76	IW-76-20110523-FS	5/23/2011	460	12	
IW-76	IW-76-20111025	10/25/2011	130	2.2 J	< 5 U
IW-76	IW-76-20120417	4/17/2012	400	8.9	< 5 U
IW-76	IW-76-20121020	10/20/2012	610	16	< 0.11 U
IW-76	IW-76-20130424	4/24/2013	420	13	0.39 J
IW-76	IW-76-101513	10/15/2013	450	8.7	< 0.11 U
IW-76	IW-76-201403	3/8/2014	127	1.5 J	< 0.13 U
IW-76	IW-76-201405	5/14/2014	10.3	< 0.080 U	< 0.13 U
IW-76	IW-76-201407	7/29/2014	319	2.7 J	< 0.50
IW-76	IW-76-201410	10/15/2014	214	6.7	< 0.50 U
IW-76	IW-76-201501	1/14/2015	288	8.8	< 0.50 U
IW-76	IW-76-201504	4/15/2015	354	11.2	< 0.50 U
IW-76	IW-76-201507	7/21/2015	323	7.3	< 0.13 U
IW-76	IW-76-201510	10/6/2015	106	1.6	< 0.13 U
IW-76	IW-76-201601	1/12/2016	80.2 J	1.9	< 0.13 U
IW-76	IW-76-201605	5/4/2016	139 J	2.6	< 0.13 U
IW-77	IW-77-20090423	4/23/2009	570	20	< 5 U
IW-77	IW-77-20090507	5/7/2009	300	17	< 5 U
IW-77	IW-77-20090527	5/27/2009	250	13	< 5 U
IW-77	IW-77-20091028	10/28/2009	380	13	< 5 U
IW-77	IW-77-20091221-FS	12/21/2009	250	12	< 1.6 U
IW-77	IW-77-20100513	5/13/2010	260	11	< 5 U
IW-77	IW-77-20101105	11/5/2010	1400	41	< 5 U
IW-77	IW-77-20110304-FS	3/4/2011	430	14	< 0.85 U
IW-77	IW-77-20110523-FS	5/23/2011	440	15	
IW-77	IW-77-20111025	10/25/2011	1400	32	< 5 U
IW-77	IW-77-20120417-FD	4/17/2012	520	20	< 5 U
IW-77	IW-77-20120417	4/17/2012	510	23	< 5 U
IW-77	IW-77-20121019	10/19/2012	1000	32	0.65 J
IW-77	IW-77-20130424	4/24/2013	530	21	< 0.11 U
IW-77	IW-77-101613	10/16/2013	1000	39	1.6 J
IW-77	IW-77-20131016-FD	10/16/2013	990	39	0.49 J
IW-77	IW-77-201403	3/8/2014	546	24.4	0.22 J
IW-77	IW-77-201405	5/14/2014	1460	36.0	0.66 J
IW-77	20140709-GW-IW-77	7/9/2014	1200	21.1	< 0.50 U
IW-77	IW-77-201407	7/29/2014	1540	35.2	< 0.50 U
IW-77	IW-77-201410	10/15/2014	741	15.8	< 0.50 U
IW-77	IW-77-20141023	10/23/2014	554	11.9	< 0.50 U
IW-77	IW-77-201501	1/14/2015	201	4.8	< 0.50 U
IW-77	IW-77-201504	4/14/2015	153	2.9	< 0.50 U
IW-77	IW-77-201507	7/21/2015	130	2.4	< 0.13 U
IW-77	IW-77-201510	10/8/2015	24.3	0.54 J	< 0.13 U
IW-77	IW-77-201511	11/5/2015	95.1	1.1	< 0.13 U
IW-77	IW-77-201512	12/2/2015	87.8	1.3	< 0.13 U
IW-77	IW-77-201601	1/11/2016	95.3	1.3	< 0.13 U

TABLE 7
HISTORICAL SUMMARY OF GROUNDWATER CONCENTRATIONS FOR TCE AND DAUGHTER-PRODUCTS
Whirlpool Facility - Fort Smith, Arkansas

Well ID	Sample Name	Date	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride
IW-77	IW-77-201605	5/4/2016	101	1.7	< 0.13 U
IW-77	IW-77-201611	11/8/2016	137	2.1	< 0.13 U
IW-78	IW-78-20111025	10/25/2011	350	12	< 5 U
IW-78	IW-78-20120418	4/18/2012	120	2.3 J	< 5 U
IW-78	IW-78-20121020	10/20/2012	310	8.7	< 0.11 U
IW-78	IW-78-20130424	4/24/2013	7.0	< 0.56 U	< 0.11 U
IW-78	IW-78-101713	10/17/2013	190	4.6 J	< 0.11 U
IW-78	IW-78-201405	5/28/2014	255	6.2	< 0.13 U
IW-78	IW-78-201409	9/11/2014	39.6	1.2 J	< 0.50 U
IW-78	IW-78-201601	1/11/2016	1.5	< 0.080 U	< 0.13 U
IW-78	IW-78-201605	5/3/2016	1.3	< 0.080 U	< 0.13 U
IW-78	IW-78-201611	11/8/2016	2.6	< 0.080 U	< 0.13 U
IW-79	IW-79-20111025	10/25/2011	570	13	< 5 U
IW-79	IW-79-20120417	4/17/2012	430	2.1 J	< 5 U
IW-79	IW-79-20121020	10/20/2012	670	20	0.45 J
IW-79	IW-79-20121020-FD	10/20/2012	480	16	< 0.11 U
IW-79	IW-79-20130424	4/24/2013	420	9.0	< 0.11 U
IW-79	IW-79-101713	10/17/2013	440	12	< 0.11 U
IW-79	IW-79-201405	5/28/2014	426	6.9	< 0.13 U
IW-79	IW-79-201409	9/11/2014	105	1.8 J	< 0.50 U
IW-79	IW-79-201601	1/11/2016	70.0	1.4	< 0.13 U
IW-79	IW-79-201605	5/4/2016	55.0	1.0	< 0.13 U
IW-80	IW-80-20090423	4/23/2009	170	4 J	< 5 U
IW-80	IW-80-20090507	5/7/2009	69	< 5 U	< 5 U
IW-80	IW-80-20110519-FS	5/19/2011	27	< 0.56 U	
IW-80	IW-80-20111025	10/25/2011	9.7	< 5 U	< 5 U
IW-80	IW-80-20120417	4/17/2012	55	2.2 J	< 5 U
IW-80	IW-80-20121019	10/19/2012	48	< 0.56 U	< 0.11 U
IW-80	IW-80-20130424	4/24/2013	40	< 0.56 U	< 0.11 U
IW-80	IW-80-101713	10/17/2013	58	2.4 J	< 0.11 U
IW-80	IW-80-20131017-FD	10/17/2013	62	2.4 J	< 0.11 U
IW-80	IW-80-201403	3/8/2014	79.1 J	2.7 J	< 0.13 U
IW-80	IW-80-201405	5/13/2014	24.2	< 0.080 U	< 0.13 U
IW-80	IW-80-201407	7/30/2014	25.6	0.85 J	< 0.50 U
IW-80	IW-80-201410	10/14/2014	11.8	< 0.50 U	< 0.50 U
IW-80	IW-80-201501	1/13/2015	7.1	< 0.50 U	< 0.50 U
IW-80	IW-80-201504	4/14/2015	9.2	< 0.50 U	< 0.50 U
IW-80	IW-80-201507	7/21/2015	12.5	0.39 J	< 0.13 U
IW-80	IW-80-201510	10/6/2015	10.6	0.37 J	< 0.13 U
IW-80	IW-80-201511	11/5/2015	11.0	< 0.080 U	< 0.13 U
IW-80	IW-80-201512	12/2/2015	9.0	0.35 J	< 0.13 U
IW-80	IW-80-201601	1/7/2016	4.2	< 0.080 U	< 0.13 U
IW-80	IW-80-201605	5/3/2016	4.3	< 0.080 U	< 0.13 U
IW-101	IW-101-20140323	3/23/2014	314	7.5	0.21 J
IW-101	IW-101-20140430	4/30/2014	794	18.9	< 0.13 U
IW-101	IW-101-20140523	5/23/2014	509	11.2	< 0.13 U
IW-101	20140708-GW-IW-101	7/8/2014	150	4.5 J	< 0.50 U
IW-101	IW-101-201409	9/12/2014	139	3.4 J	< 0.50 U
IW-101	IW-101-201601	1/7/2016	42.9	1.1	< 0.13 U
IW-101	IW-101-201605	5/5/2016	20.3	0.54 J	< 0.13 U
IW-102	IW-102-20140323	3/23/2014	685	14.6	0.45 J
IW-102	IW-102-20140430	4/30/2014	239	5.4	< 0.13 U
IW-103	IW-103-20140323	3/23/2014	692	13.1	0.76 J
IW-103	IW-103-20140430	4/30/2014	729	22.8	0.83 J
IW-104	IW-104-20140323	3/23/2014	637	13.5	0.69 J
IW-104	IW-104-20140430	4/30/2014	527	12.6	< 0.13 U
IW-105	IW-105-20140323	3/23/2014	901	14.4	0.54 J
IW-105	IW-105-20140430	4/30/2014	185	4.9 J	< 0.13 U
IW-106	IW-106-20140323	3/23/2014	198	4.2 J	< 2 U
IW-106	IW-106-20140430	4/30/2014	163	6.8	< 0.13 U
IW-106	IW-106-20140523	5/23/2014	132	2.6 J	< 0.13 U
IW-107	IW-107-20140323	3/23/2014	198	4.3 J	0.14 J
IW-107	IW-107-20140430	4/30/2014	110	3.3 J	< 0.13 U
IW-108	IW-108-20140323	3/23/2014	1280	27.8	0.83 J
IW-108	IW-108-20140429	4/29/2014	72.1	4.1 J	< 0.13 U
IW-108	IW-108-20140523	5/23/2014	59.0	1.5 J	< 0.13 U
IW-109	IW-109-20140323	3/23/2014	362	7.4	0.23 J
IW-109	IW-109-20140429	4/29/2014	91.2	2.5 J	< 0.13 U
IW-109	IW-109-20140523	5/23/2014	110	1.9 J	< 0.13 U
IW-110	IW-110-20140323	3/23/2014	464	9.8	0.5 J
IW-110	IW-110	4/16/2014	397	9.4	0.17 J
IW-110	IW-110-20140430	4/30/2014	268	8.2	0.33 J
IW-111	IW-111-20140323	3/23/2014	704	14	0.63 J
IW-111	IW-111-20140429	4/29/2014	260	6.4	< 0.13 U
IW-112	IW-112-20140323	3/23/2014	219	4.9 J	0.23 J
IW-112	IW-112	4/16/2014	200	4.8 J	< 0.13 U
IW-112	IW-112-20140430	4/30/2014	104	3.8 J	< 0.13 U

TABLE 7
HISTORICAL SUMMARY OF GROUNDWATER CONCENTRATIONS FOR TCE AND DAUGHTER-PRODUCTS
Whirlpool Facility - Fort Smith, Arkansas

Well ID	Sample Name	Date	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride
IW-113	IW-113-20140324	3/24/2014	510	11.1	0.43 J
IW-113	IW-113	4/14/2014	435	8.7	< 0.13 U
IW-114	IW-114-20140324	3/24/2014	397	9.7	0.25 J
IW-114	IW-114	4/14/2014	336	8.1	< 0.13 U
IW-115	IW-115-20140324	3/24/2014	622	14	0.25 J
IW-115	IW-115-20140407	4/7/2014	455	9.1 J	< 1.3 U
IW-115	IW-115	4/14/2014	449	9.3	< 0.13 U
IW-115	IW-115-201405	5/28/2014	504	11.2	0.27 J
IW-115	20140709-GW-IW-115	7/9/2014	352	7.4	< 0.50 U
IW-115	IW-115-201409	9/11/2014	355	8.0	< 0.50 U
IW-115	IW-115-201601	1/11/2016	169	3.6	< 0.13 U
IW-115	IW-115-201605	5/4/2016	51.9	1.1	< 0.13 U
IW-116	IW-116-20140324	3/24/2014	486	10.9	0.33 J
IW-116	IW-116	4/15/2014	546	10.8	0.34 J
IW-117	IW-117-20140324	3/24/2014	384	9.1	0.23 J
IW-117	IW-117	4/15/2014	384	9.9	< 0.13 U
IW-118	IW-118-20140324	3/24/2014	496	11.6	0.34 J
IW-118	IW-118	4/15/2014	395	9.7	< 0.13 U
IW-118	IW-118-201405	5/28/2014	437	9.3	< 0.13 U
IW-119	IW-119-20140324	3/24/2014	524	11.5	0.33 J
IW-119	IW-119-20140407	4/7/2014	478	9.1 J	< 1.3 U
IW-119	IW-119	4/15/2014	509	11.3	< 0.13 U
IW-120	IW-120-20140324	3/24/2014	289	7.9	0.14 J
IW-120	IW-120	4/15/2014	390	10.2	< 0.13 U
IW-121	IW-121-20140324	3/24/2014	402	8.9 J	< 10 U
IW-121	IW-121	4/15/2014	445	11.7	< 0.13 U
IW-122	IW-122-20140324	3/24/2014	473	11.5	0.29 J
IW-122	IW-122	4/15/2014	384	10.0	< 0.13 U
IW-123	IW-123-20140324	3/24/2014	532	12.2	0.40 J
IW-123	IW-123-20140407	4/7/2014	539	8.8 J	< 1.3 U
IW-123	IW-123	4/15/2014	488	10.0	< 0.13 U
IW-124	IW-124-20140324	3/24/2014	455	6.8 J	< 10 U
IW-124	IW-124	4/15/2014	448	8.7	0.26 J
IW-125	IW-125-20140325	3/25/2014	2140	207	3.1
IW-125	IW-125-201405	5/29/2014	17.1	2.9 J	< 0.13 U
IW-125	IW-125-201409	9/11/2014	7.3	1.0 J	< 0.50 U
IW-126	IW-126-20140325	3/25/2014	2020	197	10.4
IW-126	IW-126-201405	5/29/2014	787	59.1	< 0.13 U
IW-127	IW-127-20140324	3/24/2014	3700	219 J	7.6
IW-127	IW-127-201405	5/29/2014	639	34.7	< 0.13 U
IW-127	IW-127-201409	9/11/2014	1020	38.5	2.6
IW-127	IW-127-20141204	12/4/2014	182	7.2	< 0.50 U
IW-128	IW-128-20140325	3/25/2014	2980	178	11.7
IW-128	IW-128-20140429	4/29/2014	1250	68.4	4.9
IW-128	IW-128-201405	5/29/2014	1190	62.7	< 0.13 U
IW-129	IW-129-20140325	3/25/2014	2540	192	< 0.13 U
IW-129	IW-129-201405	5/29/2014	25.8	1.8 J	< 0.13 U
IW-130	IW-130-20140323	3/23/2014	358	7.6 J	< 10 U
IW-130	IW-130-20140523	5/23/2014	75.5	0.78 J	< 0.13 U
IW-131	IW-131-20140324	3/24/2014	526	11.5	0.35 J
IW-131	IW-131-20140430	4/30/2014	318	8.5	0.31 J
IW-131	IW-131-201405	5/28/2014	443	8.8	0.30 J
IW-132	IW-132-20141023	10/23/2014	714	3.5 J	< 0.50 U
IW-135	IW-135-20141023	10/23/2014	3840	43.3	2.0
IW-141	IW-141-20141023	10/23/2014	368000	< 1000 U	82.6
IW-141	IW-141-20141205	12/5/2014	46300	232 E	31.0
IW-143	IW-143-20141023	10/23/2014	13100	44.8	2.5
IW-147	IW-147-20141023	10/23/2014	199000	1640 J	< 1000 U
IW-147	IW-147-20141205	12/5/2014	91600	1420 J	176
IW-152	IW-152-20141022	10/22/2014	17600	224 J	8.2
IW-152	IW-152-20141204	12/4/2014	< 0.50 U	< 0.50 U	< 0.50 U
IW-153	IW-153-20141023	10/23/2014	293	85.3	12.3
IW-153	IW-153-20141204	12/4/2014	1.6 J	< 0.50 U	< 0.50 U
IW-155	IW-155-20141023	10/23/2014	14600	36.4	5.8
IW-157	IW-157-20141023	10/23/2014	74200	712 J	195
IW-157	IW-157-20141205	12/5/2014	31700	391 E	66.8
IW-169	IW-169-20141022	10/22/2014	163	1.7 J	< 0.50 U
MW-22	MW-22-19961201	12/1/1996	ND		ND
MW-22	MW-22-19970501	5/1/1997	ND	5	ND
MW-22	MW-22-19990201	2/1/1999	ND	5	ND
MW-22	MW-22-20000301	3/1/2000	ND	ND	ND
MW-22	MW-22-20000919	9/19/2000	< 5 U	< 5 U	< 10 U
MW-22	MW-22-20010327	3/27/2001	< 5 U	< 5 U	< 10 U
MW-22	MW-22-20010913	9/13/2001	< 5 U	< 5 U	< 10 U
MW-22	MW-22-20020910	9/10/2002	9	< 5 U	< 10 U
MW-22	MW-22-20030227	2/27/2003	< 5 U	< 5 U	< 10 U
MW-22	MW-22-20030923	9/23/2003	< 5 U	< 5 U	< 10 U

TABLE 7
HISTORICAL SUMMARY OF GROUNDWATER CONCENTRATIONS FOR TCE AND DAUGHTER-PRODUCTS
Whirlpool Facility - Fort Smith, Arkansas

Well ID	Sample Name	Date	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride
MW-22	MW-22-20030923-FD	9/23/2003	< 5 U	< 5 U	< 10 U
MW-22	MW-22-20040413	4/13/2004	< 5 U	< 5 U	< 10 U
MW-22	MW-22-20040921	9/21/2004	< 5 U	< 5 U	< 10 U
MW-22	MW-22-20050930	9/30/2005	< 5 U	< 5 U	< 10 U
MW-22	MW-22-20061014	10/14/2006	< 5 U	< 5 U	< 10 UJ
MW-22	MW-22-20070920	9/20/2007	< 5 U	< 5 U	< 10 U
MW-22	MW-22-20081209	12/9/2008	< 5 U	< 5 U	< 5 U
MW-22	MW-22-20091027	10/27/2009	< 5 U	< 5 U	< 5 U
MW-22	MW-22-20101103	11/3/2010	< 5 U	< 5 U	< 5 U
MW-22	MW-22-20111027	10/27/2011	2.1 J	< 5 U	< 5 U
MW-22	MW-22-20120418	4/18/2012	< 5 U	< 5 U	< 5 U
MW-22	MW-22-20121017	10/17/2012	< 1.6 U	< 0.56 U	< 0.11 U
MW-22	MW-22-20130423	4/23/2013	< 1.6 U	< 0.56 U	< 0.11 U
MW-22	MW-22-101413	10/14/2013	< 1.6 U	< 0.56 U	< 0.11 U
MW-22	MW-22-201403	3/5/2014	< 0.17 U	< 0.080 U	< 0.13 U
MW-22	MW-22-201405	5/12/2014	< 0.17 U	< 0.080 U	< 0.13 U
MW-22	MW-22-201407	7/30/2014	< 0.50 U	< 0.50 U	< 0.50 U
MW-22	MW-22-201410	10/15/2014	< 0.50 U	< 0.50 U	< 0.50 U
MW-22	MW-22-201501	1/13/2015	< 0.50 U	< 0.50 U	< 0.50 U
MW-22	MW-22-201504	4/13/2015	< 0.50 U	< 0.50 U	< 0.50 U
MW-22	MW-22-201507	7/22/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-22	MW-22-201510	10/7/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-22	MW-22-201601	1/12/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-22	MW-22-201605	5/4/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-22	MW-22-201611	11/8/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-23	MW-23-19961201	12/1/1996	210		ND
MW-23	MW-23-19970501	5/1/1997	2400		ND
MW-23	MW-23-19990201	2/1/1999	350	10	ND
MW-23	MW-23-19990201-FD	2/1/1999	440	10	ND
MW-23	MW-23-20000301-FD	3/1/2000	147	ND	ND
MW-23	ITMW-23-20000921	9/21/2000	67	< 5 U	< 10 U
MW-23	ITMW-23-20010105	1/5/2001	137	< 5 U	< 10 U
MW-23	ITMW-23-20010326	3/26/2001	87	< 5 U	< 10 U
MW-23	ITMW-23-20010911	9/11/2001	23	< 5 U	< 10 U
MW-23	ITMW-23-20020911	9/11/2002	111	< 5 U	< 10 U
MW-23	MW-23-20020911-FD	9/11/2002	105	< 5 U	< 10 U
MW-23	ITMW-23-20030227	2/27/2003	54	< 5 U	< 10 U
MW-23	ITMW-23-20030925	9/25/2003	83.9	< 5 U	< 10 U
MW-23	ITMW-23-20040415	4/15/2004	70.3	< 5 U	< 10 U
MW-23	ITMW-23-20040922	9/22/2004	73.4	< 5 U	< 10 U
MW-23	ITMW-23-20050405	4/5/2005	55.5	< 5 U	< 10 U
MW-23	ITMW-23-20050929	9/29/2005	65.8	< 5 U	< 10 U
MW-23	ITMW-23-20060317	3/17/2006	47.1	< 5 U	< 10 U
MW-23	ITMW-23-20061014	10/14/2006	59	< 5 U	< 10 UJ
MW-23	ITMW-23-20070419	4/19/2007	39.9	9.79	< 10 U
MW-23	ITMW-23-20070919	9/19/2007	47	< 5 U	< 10 U
MW-23	ITMW-23-20080429	4/29/2008	29	< 5 U	< 10 U
MW-23	ITMW-23-20081210	12/10/2008	69	< 5 U	< 5 U
MW-23	ITMW-23-20090427	4/27/2009	32	< 5 U	< 5 U
MW-23	ITMW-23-20091029	10/29/2009	45	< 5 U	< 5 U
MW-23	MW-23-20100512-FD	5/12/2010	55	< 5 U	< 5 U
MW-23	ITMW-23-20100512	5/12/2010	52	< 5 U	< 5 U
MW-23	ITMW-23-20101105	11/5/2010	76	< 5 U	< 5 U
MW-23	ITMW-23-20110323	3/23/2011	46	< 5 U	< 5 U
MW-23	ITMW-23-20111027	10/27/2011	41	< 5 U	< 5 U
MW-23	ITMW-23-20120418	4/18/2012	36	< 5 U	< 5 U
MW-23	ITMW-23-20121019	10/19/2012	43	< 0.56 U	< 0.11 U
MW-23	ITMW-23-20130425	4/25/2013	20	< 0.56 U	< 0.11 U
MW-23	MW-23-101613	10/16/2013	54	< 0.56 U	< 0.11 U
MW-23	MW-23-20140522	5/22/2014	22.8	< 0.080 U	< 0.13 U
MW-23	20140708-GW-MW-23	7/8/2014	27.8	0.68 J	< 0.50 U
MW-23	MW-23-201409	9/12/2014	62.1	1.8 J	< 0.50 U
MW-23	MW-23-20141023	10/23/2014	189	3.5 J	< 0.50 U
MW-23	MW-23-201501	1/15/2015	115	2.2	< 0.50 U
MW-23	MW-23-201504	4/14/2015	57.5	1.1	< 0.50 U
MW-23	MW-23-201507	7/23/2015	37.8	0.95 J	< 0.13 U
MW-23	MW-23-201510	10/8/2015	0.65 J	< 0.080 U	< 0.13 U
MW-23	MW-23-201511	11/5/2015	0.40 J	< 0.080 U	< 0.13 U
MW-23	MW-23-201512	12/1/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-23	MW-23-201601	1/7/2016	0.48 J	< 0.080 U	< 0.13 U
MW-23	MW-23-201605	5/5/2016	0.90 J	< 0.080 U	< 0.13 U
MW-24	MW-24-19990201	2/1/1999	1400	49	ND
MW-24	MW-24-20000301	3/1/2000	403	25	ND
MW-24	MW-24-20000301-FD	3/1/2000	595	24	ND
MW-24	MW-24-20000921	9/21/2000	128	11	< 10 U
MW-24	MW-24-20010105	1/5/2001	247	12	< 10 U
MW-24	MW-24-20010326	3/26/2001	330	11	< 10 U
MW-24	MW-24-20010911	9/11/2001	124	6	< 10 U

TABLE 7
HISTORICAL SUMMARY OF GROUNDWATER CONCENTRATIONS FOR TCE AND DAUGHTER-PRODUCTS
Whirlpool Facility - Fort Smith, Arkansas

Well ID	Sample Name	Date	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride
MW-24	MW-24-20020911	9/11/2002	199	6	< 10 U
MW-24	MW-24-20030227	2/27/2003	253	7.01	< 10 U
MW-24	MW-24-20030925	9/25/2003	155	< 5 U	< 10 U
MW-24	MW-24-20040415	4/15/2004	181	5.12	< 10 U
MW-24	MW-24-20040923	9/23/2004	116	< 5 U	< 10 U
MW-24	MW-24-20050406	4/6/2005	152	6.04	< 10 U
MW-24	MW-24-20050929	9/29/2005	161	< 5 U	< 10 U
MW-24	MW-24-20060316	3/16/2006	347	7.57	< 10 U
MW-24	MW-24-20061014	10/14/2006	620	11	2 J
MW-24	MW-24-20070419	4/19/2007	196	11.6	< 10 U
MW-24	MW-24-20070920	9/20/2007	140	< 5 U	< 10 U
MW-24	MW-24-20070920-FD	9/20/2007	150	< 5 U	< 10 U
MW-24	MW-24-20080429	4/29/2008	150	3 J	< 10 U
MW-24	MW-24-20081210	12/10/2008	150	3.4 J	< 5 U
MW-24	MW-24-20081210-FD	12/10/2008	130	3.4 J	< 5 U
MW-24	MW-24-20090427	4/27/2009	120	< 5 U	< 5 U
MW-24	MW-24-20091029	10/29/2009	110	2.6 J	< 5 U
MW-24	MW-24-20100512	5/12/2010	150	4.3 J	< 5 U
MW-24	MW-24-20110323	3/23/2011	170	3.6 J	< 5 U
MW-24	MW-24-20111027	10/27/2011	170	1.9 J	< 5 U
MW-24	MW-24-20111027-FD	10/27/2011	170	1.4 J	< 5 U
MW-24	MW-24-20120418	4/18/2012	150	2.9 J	< 5 U
MW-24	MW-24-20121019	10/19/2012	190	3.7 J	< 0.11 U
MW-24	MW-24-20130425	4/25/2013	110	3.5 J	0.23 J
MW-24	MW-24-20140522	5/22/2014	79.7	1.2 J	< 0.13 U
MW-24	20140708-GW-MW-24	7/8/2014	102	1.4 J	< 0.50 U
MW-24	MW-24-201409	9/12/2014	55.7	0.66 J	< 0.50 U
MW-24	MW-24-20141023	10/23/2014	33.1	< 0.50 U	< 0.50 U
MW-24	MW-24-201501	1/15/2015	26.9	< 0.50 U	< 0.50 U
MW-24	MW-24-201504	4/16/2015	18.8	< 0.50 U	< 0.50 U
MW-24	MW-24-201507	7/23/2015	178	3.1	< 0.13 U
MW-24	MW-24-201510	10/8/2015	44.1	0.83 J	< 0.13 U
MW-24	MW-24-201511	11/5/2015	75.8	0.20 J	< 0.13 U
MW-24	MW-24-201512	12/2/2015	84.1	0.59 J	< 0.13 U
MW-24	MW-24-201601	1/7/2016	49.3	0.48 J	< 0.13 U
MW-24	MW-24-201605	5/4/2016	23.8 J	0.27 J	< 0.13 U
MW-24	MW-24-201611	11/8/2016	4.2	< 0.080 U	< 0.13 U
MW-25	MW-25-19990201	2/1/1999	29000	170	100
MW-25	MW-25-19990201-FD	2/1/1999	27000	180	110
MW-25	MW-25-19991201	12/1/1999	94500	ND	ND
MW-25	MW-25-20000301	3/1/2000	35900	245	63
MW-25	MW-25-20000921	9/21/2000	59000	300	50
MW-25	MW-25-20010328	3/28/2001	34000	117	60
MW-25	MW-25-20010913	9/13/2001	60000	300	< 200 U
MW-25	MW-25L-20020909	9/9/2002	157000	440	180
MW-25	MW-25T-20020909	9/9/2002	56000	370	200
MW-25	MW-25-20030226	2/26/2003	45900	557	75.7
MW-25	MW-25-20030717	7/17/2003	62200	621	243
MW-25	MW-25-20030924	9/24/2003	103000	775	< 500 U
MW-25	MW-25-20040414	4/14/2004	25600	255	31.8
MW-25	MW-25-20040921	9/21/2004	85200	819	422
MW-25	MW-25-20050407	4/7/2005	21100	353	61.1
MW-25	MW-25-20050928	9/28/2005	136000	837	< 500 U
MW-25	MW-25-20060315	3/15/2006	36300	774	< 200 U
MW-25	MW-25-20061012	10/12/2006	64000	1300	610
MW-25	MW-25-20061012-FD	10/12/2006	65000	1400	600
MW-25	MW-25-20070418	4/18/2007	19000	321	20
MW-25	MW-25-20070418-FD	4/18/2007	18000	319	20
MW-25	MW-25-20070921	9/21/2007	54000	1200	800
MW-25	MW-25-20070921-FD	9/21/2007	55000	1200	780
MW-25	MW-25-20080429	4/29/2008	23000	470	10 J
MW-25	MW-25-20080429-FD	4/29/2008	25000	510	10 J
MW-25	MW-25-20081210	12/10/2008	100000	1200	430
MW-25	MW-25-20090427	4/27/2009	36000	2100	140
MW-25	MW-25-20090427-FD	4/27/2009	39000	2000	190
MW-25	MW-25-20091027	10/27/2009	140000	1500	570
MW-25	MW-25-20100511	5/11/2010	81000	1400	11
MW-25	MW-25-20101104	11/4/2010	270000	1500	400
MW-25	MW-25-20110322	3/22/2011	57000	2400	34
MW-25	MW-25-20111026	10/26/2011	120000	2100	< 250 U
MW-25	MW-25-20120417	4/17/2012	18000	690	18
MW-25	MW-25-20121019	10/19/2012	56000	4200	1500
MW-25	MW-25-20121019-FD	10/19/2012	49000	3600	1500
MW-25	MW-25-20130425	4/25/2013	9100	330	7.9
MW-25	MW-25-20130425-FD	4/25/2013	9500	380	11
MW-25	MW-25-101813	10/18/2013	43000	2900	1300
MW-25	MW-25-201403	3/8/2014	14500	625	33.6 J
MW-25	MW-25-201405	5/15/2014	18500	600 J	30.3

TABLE 7
HISTORICAL SUMMARY OF GROUNDWATER CONCENTRATIONS FOR TCE AND DAUGHTER-PRODUCTS
Whirlpool Facility - Fort Smith, Arkansas

Well ID	Sample Name	Date	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride
MW-25	20140709-GW-MW-25	7/9/2014	49900	1750	< 0.50 U
MW-25	MW-25-201407	7/31/2014	71700	2310 J	< 500 U
MW-25	MW-25-201410	10/16/2014	42500	2870 J	540 J
MW-25	MW-25-20141024	10/24/2014	59800	2650 J	0.66 J
MW-25	MW-25-20141205	12/5/2014	2620 J	31.5	2.1
MW-25	MW-25-201501	1/15/2015	2510	126	1.6
MW-25	MW-25-201504	4/16/2015	4650	204	6.4
MW-25	MW-25-201507	7/23/2015	39800	580 J	66.4
MW-25	MW-25-201510	10/8/2015	68700	957 J	< 0.13 U
MW-25	MW-25-201601	1/13/2016	43400	608 J	55.0
MW-25	MW-25-201605	5/5/2016	53000	83.6	< 0.13 U
MW-25	MW-25-201611	11/9/2016	36900	509 J	< 130 U
MW-26	MW-26-19990201	2/1/1999	360	150	ND
MW-26	MW-26-19990601	6/1/1999	ND	ND	ND
MW-26	MW-26-20000301	3/1/2000	ND	ND	ND
MW-26	MW-26-20000921	9/21/2000	< 5 U	< 5 U	< 10 U
MW-26	MW-26-20010326	3/26/2001	< 5 U	< 5 U	< 10 U
MW-26	MW-26-20010911	9/11/2001	< 5 U	< 5 U	< 10 U
MW-26	MW-26-20010911-FD	9/11/2001	< 5 U	< 5 U	< 10 U
MW-26	MW-26-20020910	9/10/2002	< 5 U	< 5 U	< 10 U
MW-26	MW-26-20030227	2/27/2003	< 5 U	< 5 U	< 10 U
MW-26	MW-26-20030924	9/24/2003	< 5 U	< 5 U	< 10 U
MW-26	MW-26-20040414	4/14/2004	< 5 U	< 5 U	< 10 U
MW-26	MW-26-20040922	9/22/2004	< 5 U	< 5 U	< 10 U
MW-26	MW-26-20050929	9/29/2005	< 5 U	< 5 U	< 10 U
MW-26	MW-26-20061012	10/12/2006	< 5 U	< 5 U	< 10 U
MW-26	MW-26-20070919	9/19/2007	< 5 U	< 5 U	< 10 U
MW-26	MW-26-20081210	12/10/2008	< 5 U	< 5 U	< 5 U
MW-26	MW-26-20091029	10/29/2009	< 5 U	< 5 U	< 5 U
MW-26	MW-26-20100512	5/12/2010	< 5 U	< 5 U	< 5 U
MW-26	MW-26-20101105	11/5/2010	22	< 5 U	< 5 U
MW-26	MW-26-20111026	10/26/2011	< 5 U	< 5 U	< 5 U
MW-26	MW-26-20120418	4/18/2012	< 5 U	< 5 U	< 5 U
MW-26	MW-26-20121018	10/18/2012	< 1.6 U	< 0.56 U	< 0.11 U
MW-26	MW-26-20130423	4/23/2013	< 1.6 U	< 0.56 U	< 0.11 U
MW-26	MW-26-101513	10/15/2013	< 1.6 U	< 0.56 U	< 0.11 U
MW-26	MW-26-201403	3/5/2014	< 0.17 U	< 0.080 U	< 0.13 U
MW-26	MW-26-201405	5/12/2014	0.25 J	< 0.080 U	< 0.13 U
MW-26	MW-26-201407	7/30/2014	< 0.50 U	< 0.50 U	< 0.50 U
MW-26	MW-26-201410	10/14/2014	< 0.50 U	< 0.50 U	< 0.50 U
MW-26	MW-26-201501	1/14/2015	< 0.50 U	< 0.50 U	< 0.50 U
MW-26	MW-26-201504	4/13/2015	< 0.50 U	< 0.50 U	< 0.50 U
MW-26	MW-26-201507	7/22/2015	0.18 J	< 0.080 U	< 0.13 U
MW-26	MW-26-201510	10/7/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-26	MW-26-201601	1/13/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-26	MW-26-201605	5/2/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-26	MW-26-201611	11/9/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-27	MW-27-19991201	12/1/1999	ND	ND	ND
MW-27	MW-27-19991207	12/7/1999	< 5 U	< 5 U	< 10 U
MW-27	MW-27-19991209	12/9/1999	< 5 U	< 5 U	< 10 U
MW-27	MW-27-20000301	3/1/2000	ND	ND	ND
MW-27	MW-27-20000921	9/21/2000	< 5 U	< 5 U	< 10 U
MW-27	MW-27-20010105	1/5/2001	< 5 U	< 5 U	< 10 U
MW-27	MW-27-20010105-FD	1/5/2001	5.55	< 5 U	< 10 U
MW-27	MW-27-20010326	3/26/2001	< 5 U	< 5 U	< 10 U
MW-27	MW-27-20010911	9/11/2001	< 5 U	< 5 U	< 10 U
MW-27	MW-27-20020911	9/11/2002	< 5 U	< 5 U	< 10 U
MW-27	MW-27-20020911-FD	9/11/2002	< 5 U	< 5 U	< 10 U
MW-27	MW-27-20030227	2/27/2003	< 5 U	< 5 U	< 10 U
MW-27	MW-27-20030925	9/25/2003	< 5 U	< 5 U	< 10 U
MW-27	MW-27-20040415	4/15/2004	< 5 U	< 5 U	< 10 U
MW-27	MW-27-20040922	9/22/2004	< 5 U	< 5 U	< 10 U
MW-27	MW-27-20050929	9/29/2005	< 5 U	< 5 U	< 10 U
MW-27	MW-27-20061014	10/14/2006	2 J	< 5 U	< 10 U
MW-27	MW-27-20070919	9/19/2007	< 5 U	< 5 U	< 10 U
MW-27	MW-27-20081210	12/10/2008	< 5 U	< 5 U	< 5 U
MW-27	MW-27-20100512	5/12/2010	3.1 J	< 5 U	< 5 U
MW-27	MW-27-20101105	11/5/2010	42	< 5 U	< 5 U
MW-27	MW-27-20111027	10/27/2011	< 5 U	< 5 U	< 5 U
MW-27	MW-27-20120418	4/18/2012	2.6 J	< 5 U	< 5 U
MW-27	MW-27-20121018	10/18/2012	< 1.6 U	< 0.56 U	< 0.11 U
MW-27	MW-27-20130424	4/24/2013	< 1.6 U	< 0.56 U	< 0.11 U
MW-27	MW-27-101513	10/15/2013	< 1.6 U	< 0.56 U	< 0.11 U
MW-27	MW-27-201403	3/7/2014	0.31 J	< 0.080 U	< 0.13 U
MW-27	MW-27-201405	5/13/2014	< 0.17 U	< 0.080 U	< 0.13 U
MW-27	MW-27-201407	7/30/2014	0.63 J	< 0.50 U	< 0.50 U
MW-27	MW-27-201410	10/14/2014	< 0.50 U	< 0.50 U	< 0.50 U
MW-27	MW-27-201501	1/14/2015	0.84 J	0.59 J	< 0.50 U

TABLE 7
HISTORICAL SUMMARY OF GROUNDWATER CONCENTRATIONS FOR TCE AND DAUGHTER-PRODUCTS
Whirlpool Facility - Fort Smith, Arkansas

Well ID	Sample Name	Date	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride
MW-27	MW-27-201504	4/13/2015	0.59 J	< 0.50 U	< 0.50 U
MW-27	MW-27-201507	7/22/2015	0.18 J	< 0.080 U	< 0.13 U
MW-27	MW-27-201510	10/7/2015	0.55 J	0.33 J	< 0.13 U
MW-27	MW-27-201601	1/12/2016	0.61 J	0.42 J	< 0.13 U
MW-27	MW-27-201605	5/4/2016	0.35 J	0.18 J	< 0.13 U
MW-27	MW-27-201611	11/9/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-28	MW-28-19991201	12/1/1999	ND	ND	ND
MW-28	MW-28-19991209	12/9/1999	< 5 U	< 5 U	< 10 U
MW-28	MW-28-19991209-FD	12/9/1999	< 5 U	< 5 U	< 10 U
MW-28	MW-28-20000301	3/1/2000	ND	ND	ND
MW-28	MW-28-20000921	9/21/2000	< 5 U	< 5 U	< 10 U
MW-28	MW-28-20010327	3/27/2001	< 5 U	< 5 U	< 10 U
MW-28	MW-28-20010327-FD	3/27/2001	< 5 U	< 5 U	< 10 U
MW-28	MW-28-20010911	9/11/2001	< 5 U	< 5 U	< 10 U
MW-28	MW-28-20020911	9/11/2002	< 5 U	< 5 U	< 10 U
MW-28	MW-28-20030227	2/27/2003	< 5 U	< 5 U	< 10 U
MW-28	MW-28-20030925	9/25/2003	< 5 U	< 5 U	< 10 U
MW-28	MW-28-20040415	4/15/2004	< 5 U	< 5 U	< 10 U
MW-28	MW-28-20040922	9/22/2004	< 5 U	< 5 U	< 10 U
MW-28	MW-28-20050930	9/30/2005	< 5 U	< 5 U	< 10 U
MW-28	MW-28-20061014	10/14/2006	< 5 U	< 5 U	< 10 UJ
MW-28	MW-28-20070919	9/19/2007	< 5 U	< 5 U	< 10 U
MW-28	MW-28-20081210	12/10/2008	< 5 U	< 5 U	< 5 U
MW-28	MW-28-20091029	10/29/2009	< 5 U	< 5 U	< 5 U
MW-28	MW-28-20100512	5/12/2010	2.6 J	< 5 U	< 5 U
MW-28	MW-28-20101105	11/5/2010	54	< 5 U	< 5 U
MW-28	MW-28-20110323	3/23/2011	1.6 J	< 5 U	< 5 U
MW-28	MW-28-20111027	10/27/2011	< 5 U	< 5 U	< 5 U
MW-28	MW-28-20120419	4/19/2012	< 5 U	< 5 U	< 5 U
MW-28	MW-28-20121017	10/17/2012	< 1.6 U	< 0.56 U	< 0.11 U
MW-28	MW-28-20130424	4/24/2013	< 1.6 U	< 0.56 U	< 0.11 U
MW-28	MW-28-101513	10/15/2013	< 1.6 U	< 0.56 U	< 0.11 U
MW-28	MW-28-201403	3/6/2014	< 0.17 U	< 0.080 U	< 0.13 U
MW-28	MW-28-201405	5/13/2014	0.30 J	< 0.080 U	< 0.13 U
MW-28	MW-28-201407	7/30/2014	< 0.50 U	< 0.50 U	< 0.50 U
MW-28	MW-28-201410	10/14/2014	< 0.50 U	< 0.50 U	< 0.50 U
MW-28	MW-28-201501	1/14/2015	< 0.50 U	< 0.50 U	< 0.50 U
MW-28	MW-28-201504	4/13/2015	< 0.50 U	< 0.50 U	< 0.50 U
MW-28	MW-28-201507	7/22/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-28	MW-28-201510	10/7/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-28	MW-28-201601	1/12/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-28	MW-28-201605	5/4/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-28	MW-28-201611	11/9/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-29	MW-29-19991201	12/1/1999	ND	ND	ND
MW-29	MW-29-19991209	12/9/1999	< 5 U	< 5 U	< 10 U
MW-29	MW-29-20000301	3/1/2000	ND	ND	ND
MW-29	MW-29-20000920	9/20/2000	< 5 U	< 5 U	< 10 U
MW-29	MW-29-20010327	3/27/2001	< 5 U	< 5 U	< 10 U
MW-29	MW-29-20010911	9/11/2001	< 5 U	< 5 U	< 10 U
MW-29	MW-29-20020910	9/10/2002	< 5 U	< 5 U	< 10 U
MW-29	MW-29-20030227	2/27/2003	< 5 U	< 5 U	< 10 U
MW-29	MW-29-20030924	9/24/2003	< 5 U	< 5 U	< 10 U
MW-29	MW-29-20040414	4/14/2004	< 5 U	< 5 U	< 10 U
MW-29	MW-29-20040922	9/22/2004	< 5 U	< 5 U	< 10 U
MW-29	MW-29-20050928	9/28/2005	< 5 U	< 5 U	< 10 U
MW-29	MW-29-20061012	10/12/2006	< 5 U	< 5 U	< 10 U
MW-29	MW-29-20070919	9/19/2007	< 5 U	< 5 U	< 10 U
MW-29	MW-29-20081210	12/10/2008	< 5 U	< 5 U	< 5 U
MW-29	MW-29-20081210-FD	12/10/2008	< 5 U	< 5 U	< 5 U
MW-29	MW-29-20091029	10/29/2009	< 5 U	< 5 U	< 5 U
MW-29	MW-29-20111025	10/25/2011	< 5 U	< 5 U	< 5 U
MW-29	MW-29-20120418	4/18/2012	< 5 U	< 5 U	< 5 U
MW-29	MW-29-20121018	10/18/2012	< 1.6 U	< 0.56 U	< 0.11 U
MW-29	MW-29-20130423	4/23/2013	< 1.6 U	< 0.56 U	< 0.11 U
MW-29	MW-29-101413	10/14/2013	< 1.6 U	< 0.56 U	< 0.11 U
MW-29	MW-29-201403	3/5/2014	0.52 J	< 0.080 U	< 0.13 U
MW-29	MW-29-201405	5/13/2014	0.18 J	< 0.080 U	< 0.13 U
MW-29	MW-29-201407	7/30/2014	< 0.50 U	< 0.50 U	< 0.50 U
MW-29	MW-29-201410	10/15/2014	< 0.50 U	< 0.50 U	< 0.50 U
MW-29	MW-29-201501	1/13/2015	< 0.50 U	< 0.50 U	< 0.50 U
MW-29	MW-29-201504	4/14/2015	< 0.50 U	< 0.50 U	< 0.50 U
MW-29	MW-29-201507	7/22/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-29	MW-29-201510	10/7/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-29	MW-29-201601	1/13/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-29	MW-29-201605	5/3/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-29	MW-29-201611	11/9/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-30	MW-30-19991201	12/1/1999	115	34	ND
MW-30	MW-30-19991209	12/9/1999	115	34	< 10 U

TABLE 7
HISTORICAL SUMMARY OF GROUNDWATER CONCENTRATIONS FOR TCE AND DAUGHTER-PRODUCTS
Whirlpool Facility - Fort Smith, Arkansas

Well ID	Sample Name	Date	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride
MW-30	MW-30-20000301	3/1/2000	86	25	ND
MW-30	MW-30-20000920	9/20/2000	102	25	< 10 U
MW-30	MW-30-20010327	3/27/2001	43	11	< 10 U
MW-30	MW-30-20010911	9/11/2001	63	18	< 10 U
MW-30	MW-30-20020910	9/10/2002	48	14	< 10 U
MW-30	MW-30-20030227	2/27/2003	60	20.3	< 10 U
MW-30	MW-30-20030924	9/24/2003	46.8	13.7	< 10 U
MW-30	MW-30-20040414	4/14/2004	36.6	11.8	< 10 U
MW-30	MW-30-20040922	9/22/2004	36.2	12.1	< 10 U
MW-30	MW-30-20050928	9/28/2005	59.6	15.6	< 10 U
MW-30	MW-30-20061012	10/12/2006	53	15	< 10 U
MW-30	MW-30-20070920	9/20/2007	39	11	< 10 U
MW-30	MW-30-20081210	12/10/2008	37	11	< 5 U
MW-30	MW-30-20101103	11/3/2010	50	15	< 5 U
MW-30	MW-30-20111026	10/26/2011	57	16	< 5 U
MW-30	MW-30-20120418	4/18/2012	150	32	< 5 U
MW-30	MW-30-20121018	10/18/2012	65	19	< 0.11 U
MW-30	MW-30-20130425	4/25/2013	49	18	0.49 J
MW-30	MW-30-101413	10/14/2013	40	16	< 0.11 U
MW-31	MW-31-20010105	1/5/2001	< 5 U	< 5 U	< 10 U
MW-31	MW-31-20010326	3/26/2001	< 5 U	< 5 U	< 10 U
MW-31	MW-31-20010913	9/13/2001	< 5 U	< 5 U	< 10 U
MW-31	MW-31-20020911	9/11/2002	< 5 U	< 5 U	< 10 U
MW-31	MW-31-20030228	2/28/2003	< 5 U	< 5 U	< 10 U
MW-31	MW-31-20030925	9/25/2003	< 5 U	< 5 U	< 10 U
MW-31	MW-31-20040415	4/15/2004	< 5 U	< 5 U	< 10 U
MW-31	MW-31-20040923	9/23/2004	< 5 U	< 5 U	< 10 U
MW-31	MW-31-20050405	4/5/2005	< 5 U	< 5 U	< 10 U
MW-31	MW-31-20050927	9/27/2005	< 5 U	< 5 U	< 10 U
MW-31	MW-31-20060315	3/15/2006	< 5 U	< 5 U	< 10 U
MW-31	MW-31-20061011	10/11/2006	3 J	< 5 U	< 10 U
MW-31	MW-31-20070419	4/19/2007	< 5 U	< 5 U	< 10 U
MW-31	MW-31-20070918	9/18/2007	< 5 U	< 5 U	< 10 U
MW-31	MW-31-20080430	4/30/2008	2 J	< 5 U	< 10 U
MW-31	MW-31-20081211	12/11/2008	< 5 U	< 5 U	< 5 U
MW-31	MW-31-20090425	4/25/2009	< 5 U	< 5 U	< 5 U
MW-31	MW-31-20100512	5/12/2010	< 5 U	< 5 U	< 5 U
MW-31	MW-31-20101107	11/7/2010	48	< 5 U	< 5 U
MW-31	MW-31-20110323	3/23/2011	< 5 U	< 5 U	< 5 U
MW-31	MW-31-20111026	10/26/2011	< 5 U	< 5 U	< 5 U
MW-31	MW-31-20121019	10/19/2012	< 1.6 U	< 0.56 U	< 0.11 U
MW-31	MW-31-101813	10/18/2013	< 1.6 U	< 0.56 U	< 0.11 U
MW-31	MW-31-201403	3/6/2014	< 0.17 U	< 0.080 U	< 0.13 U
MW-31	MW-31-201405	5/13/2014	< 0.17 U	< 0.080 U	< 0.13 U
MW-31	DUP-1-201407	7/30/2014	< 0.50 U	< 0.50 U	< 0.50 U
MW-31	MW-31-201407	7/30/2014	< 0.50 U	< 0.50 U	< 0.50 U
MW-31	MW-31-201410	10/14/2014	< 0.50 U	< 0.50 U	< 0.50 U
MW-31	MW-31-201501	1/12/2015	< 0.50 U	< 0.50 U	< 0.50 U
MW-31R	MW-31R-GW-20150119	1/19/2015	< 0.50 U	< 0.50 U	< 0.50 U
MW-31R	MW-31R-201504	4/14/2015	< 0.50 U	< 0.50 U	< 0.50 U
MW-31R	MW-31R-201507	7/21/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-31R	MW-31R-201510	10/6/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-31R	MW-31R-201601	1/12/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-31R	MW-31R-201604	4/18/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-32	MW-32-20010105	1/5/2001	108	< 5 U	< 10 U
MW-32	MW-32-20010327	3/27/2001	174	< 5 U	< 10 U
MW-32	MW-32-20010913	9/13/2001	95	< 5 U	< 10 U
MW-32	MW-32-20020911	9/11/2002	109	< 5 U	< 10 U
MW-32	MW-32-20030228	2/28/2003	133	< 5 U	< 10 U
MW-32	MW-32-20030925	9/25/2003	32.3	< 5 U	< 10 U
MW-32	MW-32-20040415	4/15/2004	76.9	< 5 U	< 10 U
MW-32	MW-32-20040923	9/23/2004	51.4	< 5 U	< 10 U
MW-32	MW-32-20050405	4/5/2005	158	< 5 U	< 10 U
MW-32	MW-32-20050927	9/27/2005	97.6	< 5 U	< 10 U
MW-32	MW-32-20060315	3/15/2006	111	< 5 U	< 10 U
MW-32	MW-32-20061012	10/12/2006	85	4 J	< 10 U
MW-32	MW-32-20070419	4/19/2007	66.3	10.1	< 10 U
MW-32	MW-32-20070918	9/18/2007	78	< 5 U	< 10 U
MW-32	MW-32-20080430	4/30/2008	70	2 J	< 10 U
MW-32	MW-32-20081211	12/11/2008	60	< 5 U	< 5 U
MW-32	MW-32-20090425	4/25/2009	47	< 5 U	< 5 U
MW-32	MW-32-20091028	10/28/2009	68	1.8 J	< 5 U
MW-32	MW-32-20100512	5/12/2010	58	< 5 U	< 5 U
MW-32	MW-32-20101106	11/6/2010	120	< 5 U	< 5 U
MW-32	MW-32-20110324	3/24/2011	66	1.4 J	< 5 U
MW-32	MW-32-20111026	10/26/2011	73	< 5 U	< 5 U
MW-32	MW-32-20121019	10/19/2012	61	1.2 J	< 0.11 U
MW-32	MW-32-101813	10/18/2013	48	1.4 J	< 0.11 U

TABLE 7
HISTORICAL SUMMARY OF GROUNDWATER CONCENTRATIONS FOR TCE AND DAUGHTER-PRODUCTS
Whirlpool Facility - Fort Smith, Arkansas

Well ID	Sample Name	Date	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride
MW-32	MW-32-201403	3/8/2014	36.8	1.1 J	< 0.13 U
MW-32	MW-32-201405	5/13/2014	33.1	0.19 J	< 0.13 U
MW-32	MW-32-201407	7/29/2014	37.2	1.0 J	< 0.50 U
MW-32	MW-32-201410	10/14/2014	29.7	0.80 J	< 0.50 U
MW-32	MW-32-201501	1/14/2015	20.2	0.55 J	< 0.50 U
MW-32R	MW-32R-GW-20150119	1/19/2015	12.9	< 0.50 U	< 0.50 U
MW-32R	MW-32R-201504	4/15/2015	11.2	< 0.50 U	< 0.50 U
MW-32R	MW-32R-201507	7/21/2015	7.4	0.29 J	< 0.13 U
MW-32R	MW-32R-201510	10/7/2015	8.2	0.37 J	< 0.13 U
MW-32R	MW-32R-201601	1/12/2016	13.1	0.45 J	< 0.13 U
MW-32R	MW-32R-201604	4/18/2016	8.8	< 0.080 U	< 0.13 U
MW-33	MW-33-20010105	1/5/2001	120	< 5 U	< 10 U
MW-33	MW-33-20010327	3/27/2001	260	7	< 10 U
MW-33	MW-33-20010913	9/13/2001	310	8	< 10 U
MW-33	MW-33-20020911	9/11/2002	450	8	< 10 U
MW-33	MW-33-20030228	2/28/2003	274	6.62	< 10 U
MW-33	MW-33-20030925	9/25/2003	198	5.95	< 10 U
MW-33	MW-33-20040415	4/15/2004	871	21.3	< 10 U
MW-33	MW-33-20040923	9/23/2004	798	15.3	< 10 U
MW-33	MW-33-20050405	4/5/2005	1430	24.5	< 10 U
MW-33	MW-33-20050927	9/27/2005	1030	15.2	< 10 U
MW-33	MW-33-20060315	3/15/2006	1610	20.5	< 10 U
MW-33	MW-33-20061012	10/12/2006	1300	19	< 10 U
MW-33	MW-33-20070419	4/19/2007	1430	9.2 J	< 50 U
MW-33	MW-33-20070918	9/18/2007	1700	25	< 10 U
MW-33	MW-33-20080430	4/30/2008	1100	16	< 10 U
MW-33	MW-33-20081211	12/11/2008	1200	18	< 5 U
MW-33	MW-33-20090425	4/25/2009	1200	19	< 5 U
MW-33	MW-33-20090527	5/27/2009	1000	19	< 5 U
MW-33	MW-33-20091028	10/28/2009	1200	20	< 5 U
MW-33	MW-33-20100512	5/12/2010	1100	21	< 5 U
MW-33	MW-33-20101106	11/6/2010	1200	17	< 5 U
MW-33	MW-33-20110304-FS	3/4/2011	500	14	< 0.85 U
MW-33	MW-33-20110523-FS	5/23/2011	1300	18	
MW-33	MW-33-20111026	10/26/2011	1000	16	< 5 U
MW-33	MW-33-20121019	10/19/2012	1300	18	0.56 J
MW-33	MW-33-101813	10/18/2013	1100	19	< 0.11 U
MW-33	MW-33-201403	3/8/2014	918	15.9	0.56 J
MW-33	MW-33-201405	5/14/2014	954	15.1	0.56 J
MW-33	MW-33-201407	7/29/2014	1600	20.8	0.59 J
MW-33	MW-33-201410	10/15/2014	1290	15.3	< 0.50 U
MW-33	MW-33-201501	1/14/2015	1080	13.9	< 0.50 U
MW-33R	MW-33R-GW-20150118	1/18/2015	799	9.9	< 0.50 U
MW-33R	DUP-01-201504	4/15/2015	624	10.5	< 0.50 U
MW-33R	MW-33R-201504	4/15/2015	570	12.2	0.37 J
MW-33R	DUP-04-201507	7/22/2015	447	6.1	< 0.13 U
MW-33R	MW-33R-201507	7/22/2015	488	6.8	< 0.13 U
MW-33R	DUP-05-201510	10/8/2015	460	6.3	0.28 J
MW-33R	MW-33R-201510	10/8/2015	562	6.1	0.31 J
MW-33R	MW-33R-201511	11/5/2015	752	8.0	0.39 J
MW-33R	MW-33R-201512	12/2/2015	675	6.5	0.30 J
MW-33R	MW-33R-201601	1/8/2016	724	7.6	< 0.13 U
MW-33R	MW-33R-201604	4/18/2016	776	6.7	0.23 J
MW-34	MW-34-20010328	3/28/2001	83	< 5 U	< 10 U
MW-34	MW-34-20010913	9/13/2001	61	< 5 U	< 10 U
MW-34	MW-34L-20020909	9/9/2002	84	< 5 U	< 10 U
MW-34	MW-34-20030228	2/28/2003	< 5 U	< 5 U	< 10 U
MW-34	MW-34-20030925	9/25/2003	28.4	< 5 U	< 10 U
MW-34	MW-34-20031114	11/14/2003	121	< 5 U	< 10 U
MW-34	MW-34-20040415	4/15/2004	119	< 5 U	< 10 U
MW-34	MW-34-20040923	9/23/2004	81.1	< 5 U	< 10 U
MW-34	MW-34-20041209	12/9/2004	93.3	< 5 U	< 10 U
MW-34	MW-34-20050405	4/5/2005	65.8	< 5 U	< 10 U
MW-34	MW-34-20050930	9/30/2005	83.7	< 5 U	< 10 U
MW-34	MW-34-20060314	3/14/2006	77.1	< 5 U	< 10 U
MW-34	MW-34-20061011	10/11/2006	63	4 J	< 10 U
MW-34	MW-34-20070418	4/18/2007	41	9.79	< 10 U
MW-34	MW-34-20070919	9/19/2007	61	< 5 U	< 10 U
MW-34	MW-34-20080430	4/30/2008	32	< 5 U	< 10 U
MW-34	MW-34-20081210	12/10/2008	53	< 5 U	< 5 U
MW-34	MW-34-20090424	4/24/2009	43	< 5 U	< 5 U
MW-34	MW-34-20090527	5/27/2009	12	< 5 U	< 5 U
MW-34	MW-34-20091028	10/28/2009	34	< 5 U	< 5 U
MW-34	MW-34-20100512	5/12/2010	38	< 5 U	< 5 U
MW-34	MW-34-20101107-FD	11/7/2010	70	< 5 U	< 5 U
MW-34	MW-34-20101107	11/7/2010	73	< 5 U	< 5 U
MW-34	MW-34-20110324-FD	3/24/2011	40	< 5 U	< 5 U
MW-34	MW-34-20110324	3/24/2011	42	< 5 U	< 5 U

TABLE 7
HISTORICAL SUMMARY OF GROUNDWATER CONCENTRATIONS FOR TCE AND DAUGHTER-PRODUCTS
Whirlpool Facility - Fort Smith, Arkansas

Well ID	Sample Name	Date	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride
MW-34	MW-34-20111026	10/26/2011	56	< 5 U	< 5 U
MW-34	MW-34-20121020	10/20/2012	90	1.6 J	< 0.11 U
MW-34	MW-34-101713	10/17/2013	43	0.90 J	< 0.11 U
MW-34	MW-34-201403	3/8/2014	28.7	0.61 J	< 0.13 U
MW-34	MW-34-201405	5/13/2014	19.9	< 0.080 U	< 0.13 U
MW-34	MW-34-201407	7/29/2014	78.2	1.7 J	< 0.50 U
MW-34	MW-34-201410	10/15/2014	47.7	0.96 J	< 0.50 U
MW-34	MW-34-201501	1/13/2015	22.0	< 0.50 U	< 0.50 U
MW-34	MW-34-201504	4/14/2015	13.8	< 0.50 U	< 0.50 U
MW-34R	MW-34R-201507	7/21/2015	3.5	< 0.080 U	< 0.13 U
MW-34R	MW-34R-201510	10/8/2015	4.5	0.16 J	< 0.13 U
MW-34R	MW-34R-201601	1/11/2016	2.6	0.30 J	< 0.13 U
MW-34R	MW-34R-201605	5/3/2016	2.5	0.56 J	< 0.13 U
MW-35R	MW-35R-20010328	3/28/2001	960	34	< 10 U
MW-35R	MW-35R-20010913	9/13/2001	1030	40	< 20 U
MW-35R	MW-35L-20020909	9/9/2002	900	31	< 10 U
MW-35R	MW-35R-20030228	2/28/2003	246	15.1	< 10 U
MW-35R	MW-35R-20030925	9/25/2003	297	19.8	< 10 U
MW-35R	MW-35R-20031114	11/14/2003	990	34.9	< 10 U
MW-35R	MW-35R-20040415	4/15/2004	1150	45.8	< 10 U
MW-35R	MW-35R-20040923	9/23/2004	685	28.4	< 10 U
MW-35R	MW-35R-20041209	12/9/2004	880	42	< 10 U
MW-35R	MW-35R-20050406	4/6/2005	886	35	< 10 U
MW-35R	MW-35R-20050930	9/30/2005	804	29.3	< 10 U
MW-35R	MW-35R-20060314	3/14/2006	858	24.2	< 10 U
MW-35R	MW-35R-20060406	4/6/2006	1540	52.5	< 10 U
MW-35R	MW-35R-20061011	10/11/2006	910	29	< 10 U
MW-35R	MW-35R-20070418	4/18/2007	900	27.6	< 10 U
MW-35R	MW-35R-20070919	9/19/2007	1100	28	< 10 U
MW-35R	MW-35R-20080430	4/30/2008	1100	33	< 10 U
MW-35R	MW-35R-20081211	12/11/2008	790	27	< 5 U
MW-35R	MW-35R-20090424	4/24/2009	1100	37	< 5 U
MW-35R	MW-35R-20090507	5/7/2009	< 5 U	< 5 U	< 5 U
MW-35R	MW-35R-20090527	5/27/2009	< 5 U	< 5 U	< 5 U
MW-35R	MW-35R-20101105	11/5/2010	240	9.9	< 5 U
MW-35R	MW-35R-20110304-FS	3/4/2011	180	8.4	< 0.85 U
MW-35R	MW-35R-20110523-FS	5/23/2011	260	13	
MW-35R	MW-35R-20111025	10/25/2011	280	12	< 5 U
MW-35R	MW-35R-20121020	10/20/2012	280	10	< 0.11 U
MW-35R	MW-35R-101713	10/17/2013	200	12	< 0.11 U
MW-35R	MW-35R-20131017-FD	10/17/2013	220	13	
MW-35R	MW-35R-201403	3/8/2014	345	14.9	< 0.13 U
MW-35R	MW-35R-201405	5/13/2014	183	6.1	< 0.13 U
MW-35R	MW-35R-201407	7/30/2014	64.7	2.8 J	< 0.50 U
MW-35R	MW-35R-201410	10/14/2014	79.2	2.6 J	< 0.50 U
MW-35R	MW-35R-201501	1/13/2015	10.9	< 0.50 U	< 0.50 U
MW-35R	MW-35R-201504	4/14/2015	39.5	1.3	< 0.50 U
MW-35R	MW-35R-201507	7/21/2015	33.7	1.0	< 0.13 U
MW-35R	MW-35R-201510	10/7/2015	15.4	0.58 J	< 0.13 U
MW-35R	MW-35R-201511	11/4/2015	23.6	0.36 J	< 0.13 U
MW-35R	MW-35R-201512	12/2/2015	0.89 J	< 0.080 U	< 0.13 U
MW-35R	MW-35R-201601	1/11/2016	13.2	0.34 J	< 0.13 U
MW-35R	MW-35R-201605	5/3/2016	19.3	0.49 J	< 0.13 U
MW-36	MW-36-20010328	3/28/2001	< 5 U	< 5 U	< 10 U
MW-36	MW-36-20010913	9/13/2001	< 5 U	< 5 U	< 10 U
MW-36	MW-36L-20020909	9/9/2002	< 5 U	< 5 U	< 10 U
MW-36	MW-36-20030228	2/28/2003	< 5 U	< 5 U	< 10 U
MW-36	MW-36-20030925	9/25/2003	< 5 U	< 5 U	< 10 U
MW-36	MW-36-20031114	11/14/2003	< 5 U	< 5 U	< 10 U
MW-36	MW-36-20040415	4/15/2004	< 5 U	< 5 U	< 10 U
MW-36	MW-36-20040923	9/23/2004	< 5 U	< 5 U	< 10 U
MW-36	MW-36-20050406	4/6/2005	< 5 U	< 5 U	< 10 U
MW-36	MW-36-20050930	9/30/2005	< 5 U	< 5 U	< 10 U
MW-36	MW-36-20060317	3/17/2006	< 5 U	< 5 U	< 10 U
MW-36	MW-36-20061011	10/11/2006	< 5 U	< 5 U	< 10 U
MW-36	MW-36-20070418	4/18/2007	< 5 U	< 5 U	< 10 U
MW-36	MW-36-20070920	9/20/2007	< 5 U	< 5 U	< 10 U
MW-36	MW-36-20080430	4/30/2008	< 5 U	< 5 U	< 10 U
MW-36	MW-36-20081211	12/11/2008	< 5 U	< 5 U	< 5 U
MW-36	MW-36-20090424	4/24/2009	< 5 U	< 5 U	< 5 U
MW-36	MW-36-20090507	5/7/2009	< 5 U	< 5 U	< 5 U
MW-36	MW-36-20090508	5/8/2009	< 5 U	< 5 U	< 5 U
MW-36	MW-36-20090528	5/28/2009	< 5 U	< 5 U	< 5 U
MW-36	MW-36-20091028	10/28/2009	< 5 U	< 5 U	< 5 U
MW-36	MW-36-20100512	5/12/2010	< 5 U	< 5 U	< 5 U
MW-36	MW-36-20101107	11/7/2010	9.9	< 5 U	< 5 U
MW-36	MW-36-20110324	3/24/2011	< 5 U	< 5 U	< 5 U
MW-36	MW-36-20111026	10/26/2011	< 5 U	< 5 U	< 5 U

TABLE 7
HISTORICAL SUMMARY OF GROUNDWATER CONCENTRATIONS FOR TCE AND DAUGHTER-PRODUCTS
Whirlpool Facility - Fort Smith, Arkansas

Well ID	Sample Name	Date	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride
MW-36	MW-36-20121019	10/19/2012	< 1.6 U	< 0.56 U	< 0.11 U
MW-36	MW-36-101713	10/17/2013	< 1.6 U	< 0.56 U	< 0.11 U
MW-36	MW-36-201403	3/6/2014	0.22 J	< 0.080 U	< 0.13 U
MW-36	MW-36-201405	5/13/2014	< 0.17 U	< 0.080 U	< 0.13 U
MW-36	MW-36-201407	7/29/2014	0.61 J	< 0.50 U	< 0.50 U
MW-36	MW-36-201410	10/14/2014	< 0.50 U	< 0.50 U	< 0.50 U
MW-36	MW-36-201501	1/12/2015	< 0.50 U	< 0.50 U	< 0.50 U
MW-36	MW-36-201504	4/14/2015	< 0.50 U	< 0.50 U	< 0.50 U
MW-36R	MW-36R-201507	7/20/2015	< 0.17 UJ	< 0.080 UJ	< 0.13 UJ
MW-36R	MW-36R-201510	10/6/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-36R	MW-36R-201601	1/11/2016	0.31 J	< 0.080 U	< 0.13 U
MW-36R	MW-36R-201605	5/3/2016	1.7	< 0.080 U	< 0.13 U
MW-37	MW-37-20010914	9/14/2001	5000	340	< 100 U
MW-37	MW-37-20011120	11/20/2001	< 5 U	< 5 U	< 10 U
MW-37	MW-37-20020911	9/11/2002	1400	10000	300
MW-37	MW-37-20030227	2/27/2003	4050	5660	2500
MW-37	MW-37-20030717	7/17/2003	2560	1710	316
MW-37	MW-37-20030924	9/24/2003	3700	7020	973
MW-37	MW-37-20040413	4/13/2004	5190	3160	1180
MW-37	MW-37-20040921	9/21/2004	5030	5650	1370
MW-37	MW-37-20050405	4/5/2005	5310	2360	1030 E
MW-37	MW-37-20050929	9/29/2005	6780	3210	910 E
MW-37	MW-37-20060316	3/16/2006	11200	5020	1730
MW-37	MW-37-20061013	10/13/2006	13000	5300	1200
MW-37	MW-37-20061013-FD	10/13/2006	13000	5000	1200
MW-37	MW-37-20070419	4/19/2007	9490	3010	780
MW-37	MW-37-20070921	9/21/2007	22000	9100	2800
MW-37	MW-37-20080430	4/30/2008	16000	3300	1800
MW-37	MW-37-20081210	12/10/2008	24000	6300	1800
MW-37	MW-37-20090427	4/27/2009	11000	3200	1200
MW-37	MW-37-20091027	10/27/2009	37000	7400	2200
MW-37	MW-37-20100511	5/11/2010	33000	7200	2400
MW-37	MW-37-20101104	11/4/2010	54000	10000	2200
MW-37	MW-37-20110322	3/22/2011	36000	6000	2300
MW-37	MW-37-20111026	10/26/2011	57000	9700	2500
MW-37	MW-37-20120418	4/18/2012	29000	5300	2100
MW-37	MW-37-20121019	10/19/2012	4800	1100	230
MW-37	MW-37-20130425	4/25/2013	1700	900	230
MW-37	MW-37-101713	10/17/2013	1100	1500	1300
MW-38	MW-38-20010914	9/14/2001	620	90	< 20 U
MW-38	MW-38-20050929	9/29/2005	< 5 U	98.9	2150
MW-38	MW-38-20061013	10/13/2006	26	130	2000 J
MW-38	MW-38-20081210	12/10/2008	44	110	1400
MW-38	MW-38-20111026	10/26/2011	580	870	1100
MW-38	MW-38-20121018	10/18/2012	1000	750	700
MW-38	MW-38-101613	10/16/2013	2300	1200	560
MW-38	MW-38-201403	3/8/2014	1790	535	68.4
MW-38	DUP1-201405	5/14/2014	2040	426 J	98.2
MW-38	MW-38-201405	5/14/2014	1650	428	97.9
MW-38	MW-38-201407	7/31/2014	1720	637	197
MW-38	DUP-06-201410	10/16/2014	6970	869	370
MW-38	MW-38-201410	10/16/2014	6750	781	321
MW-38	MW-38-20141204	12/4/2014	3190	697	193
MW-38	DUP-06-201501	1/15/2015	3910	1190	143
MW-38	MW-38-201501	1/15/2015	5440	1900	133
MW-38	MW-38-201504	4/16/2015	3060	2060	33.7
MW-38	MW-38-201507	7/23/2015	3420	1340	119
MW-38	MW-38-201510	10/8/2015	2740	1340	190
MW-38	MW-38-201601	1/13/2016	3680	1180	84.3
MW-38	MW-38-201605	5/5/2016	3040	950	18.1
MW-38	MW-38-201611	11/10/2016	2860	1070	597
MW-39	MW-39-20030718	7/18/2003	< 5 U	< 5 U	< 10 U
MW-39	MW-39-20030925	9/25/2003	< 5 U	< 5 U	< 10 U
MW-39	MW-39-20031114	11/14/2003	< 5 U	< 5 U	< 10 U
MW-39	MW-39-20040415	4/15/2004	< 5 U	< 5 U	< 10 U
MW-39	MW-39-20040923	9/23/2004	< 5 U	< 5 U	< 10 U
MW-39	MW-39-20050408	4/8/2005	< 5 U	< 5 U	< 10 U
MW-39	MW-39-20050930	9/30/2005	< 5 U	< 5 U	< 10 U
MW-39	MW-39-20060317	3/17/2006	< 5 U	< 5 U	< 10 U
MW-39	MW-39-20061011	10/11/2006	< 5 U	< 5 U	< 10 U
MW-39	MW-39-20070418	4/18/2007	< 5 U	< 5 U	< 10 U
MW-39	MW-39-20070919	9/19/2007	< 5 U	< 5 U	< 10 U
MW-39	MW-39-20080430	4/30/2008	< 5 U	< 5 U	< 10 U
MW-39	MW-39-20081209	12/9/2008	< 5 U	< 5 U	< 5 U
MW-39	MW-39-20090424	4/24/2009	< 5 U	< 5 U	< 5 U
MW-39	MW-39-20091027	10/27/2009	< 5 U	< 5 U	< 5 U
MW-39	MW-39-20100511	5/11/2010	< 5 U	< 5 U	< 5 U
MW-39	MW-39-20101107	11/7/2010	20	< 5 U	< 5 U

TABLE 7
HISTORICAL SUMMARY OF GROUNDWATER CONCENTRATIONS FOR TCE AND DAUGHTER-PRODUCTS
Whirlpool Facility - Fort Smith, Arkansas

Well ID	Sample Name	Date	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride
MW-39	MW-39-20110324	3/24/2011	< 5 U	< 5 U	< 5 U
MW-39	MW-39-20111026	10/26/2011	< 5 U	< 5 U	< 5 U
MW-39	MW-39-20121019	10/19/2012	< 1.6 U	< 0.56 U	< 0.11 U
MW-39	MW-39-101813	10/18/2013	< 1.6 U	< 0.56 U	< 0.11 U
MW-39	MW-39-201403	3/6/2014	< 0.17 U	< 0.080 U	< 0.13 U
MW-39	MW-39-201405	5/13/2014	0.23 J	< 0.080 U	< 0.13 U
MW-39	MW-39-201407	7/29/2014	0.79 J	< 0.50 U	< 0.50 U
MW-39	MW-39-201410	10/13/2014	< 0.50 U	< 0.50 U	< 0.50 U
MW-39	MW-39-201501	1/12/2015	< 0.50 U	< 0.50 U	< 0.50 U
MW-39	MW-39-201504	4/14/2015	< 0.50 U	< 0.50 U	< 0.50 U
MW-39R	MW-39R-201507	7/20/2015	< 0.17 UJ	< 0.080 UJ	< 0.13 UJ
MW-39R	MW-39R-201510	10/7/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-39R	MW-39R-201601	1/12/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-39R	MW-39R-201605	5/2/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-39R	MW-39R-201611	11/7/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-40	MW-40-20030718	7/18/2003	< 5 U	< 5 U	< 10 U
MW-40	MW-40-20030925	9/25/2003	< 5 U	< 5 U	< 10 U
MW-40	MW-40-20031114	11/14/2003	< 5 U	< 5 U	< 10 U
MW-40	MW-40-20031114-FD	11/14/2003	< 5 U	< 5 U	< 10 U
MW-40	MW-40-20040415	4/15/2004	< 5 U	< 5 U	< 10 U
MW-40	MW-40-20040923	9/23/2004	< 5 U	< 5 U	< 10 U
MW-40	MW-40-20050407	4/7/2005	< 5 U	< 5 U	< 10 U
MW-40	MW-40-20050929	9/29/2005	< 5 U	< 5 U	< 10 U
MW-40	MW-40-20060314	3/14/2006	< 5 U	< 5 U	< 10 U
MW-40	MW-40-20061010	10/10/2006	< 5 U	< 5 U	< 10 U
MW-40	MW-40-20070418	4/18/2007	< 5 U	< 5 U	< 10 U
MW-40	MW-40-20070918	9/18/2007	< 5 U	< 5 U	< 10 U
MW-40	MW-40-20080428	4/28/2008	< 5 U	< 5 U	< 10 U
MW-40	MW-40-20081211	12/11/2008	< 5 U	< 5 U	< 5 U
MW-40	MW-40-20090424	4/24/2009	< 5 U	< 5 U	< 5 U
MW-40	MW-40-20090527	5/27/2009	< 5 U	< 5 U	< 5 U
MW-40	MW-40-20091029	10/29/2009	< 5 U	< 5 U	< 5 U
MW-40	MW-40-20100512	5/12/2010	< 5 U	< 5 U	< 5 U
MW-40	MW-40-20101104	11/4/2010	< 5 U	< 5 U	< 5 U
MW-40	MW-40-20110323	3/23/2011	< 5 U	< 5 U	< 5 U
MW-40	MW-40-20111026	10/26/2011	< 5 U	< 5 U	< 5 U
MW-40	MW-40-20120418	4/18/2012	3.9 J	< 5 U	< 5 U
MW-40	MW-40-20121017	10/17/2012	< 1.6 U	< 0.56 U	< 0.11 U
MW-40	MW-40-20130423	4/23/2013	< 1.6 U	< 0.56 U	< 0.11 U
MW-40	MW-40-101513	10/15/2013	< 1.6 U	< 0.56 U	< 0.11 U
MW-40	MW-40-201403	3/6/2014	< 0.17 U	< 0.080 U	< 0.13 U
MW-40	MW-40-201405	5/12/2014	0.76 J	< 0.080 U	< 0.13 U
MW-40	MW-40-201407	7/29/2014	< 0.50 U	< 0.50 U	< 0.50 U
MW-40	MW-40-201410	10/13/2014	< 0.50 U	< 0.50 U	< 0.50 U
MW-40	MW-40-201501	1/12/2015	< 0.50 U	< 0.50 U	< 0.50 U
MW-40	MW-40-201504	4/14/2015	< 0.50 U	< 0.50 U	< 0.50 U
MW-40R	MW-40R-201507	7/20/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-40R	DUP-03-201510	10/6/2015	0.83 J	< 0.080 U	< 0.13 U
MW-40R	MW-40R-201510	10/6/2015	0.30 J	0.23 J	< 0.13 U
MW-40R	DUP-06-201601	1/12/2016	0.28 J	0.22 J	< 0.13 U
MW-40R	MW-40R-201601	1/12/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-40R	MW-40R-201605	5/2/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-40R	MW-40R-201611	11/7/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-41	MW-41-20030718	7/18/2003	972	50.6	< 10 U
MW-41	MW-41-20030718-FD	7/18/2003	964	45.5	< 10 U
MW-41	MW-41-20030925	9/25/2003	722	37.8	< 10 U
MW-41	MW-41-20031114	11/14/2003	331	205	< 10 U
MW-41	MW-41-20040415	4/15/2004	760	54.2	< 10 U
MW-41	MW-41-20040923	9/23/2004	1060	48	< 10 U
MW-41	MW-41-20050407	4/7/2005	1170	58	< 10 U
MW-41	MW-41-20050930	9/30/2005	1120	55.8	< 10 U
MW-41	MW-41-20060317	3/17/2006	917	52.5	< 10 U
MW-41	MW-41-20061013	10/13/2006	970	43	< 10 UJ
MW-41	MW-41-20070418	4/18/2007	900	30.1	< 10 U
MW-41	MW-41-20070920	9/20/2007	850	32	< 10 U
MW-41	MW-41-20080430	4/30/2008	730	31	< 10 U
MW-41	MW-41-20081211	12/11/2008	820	29	< 5 U
MW-41	MW-41-20090424	4/24/2009	660	25	< 5 U
MW-41	MW-41-20090507	5/7/2009	180	4.7 J	< 5 U
MW-41	MW-41-20090508	5/8/2009	180	4.7 J	< 5 U
MW-41	MW-41-20090527	5/27/2009	230	16	< 5 U
MW-41	MW-41-20091028	10/28/2009	180	4 J	< 5 U
MW-41	MW-41-20100513	5/13/2010	610	19	< 5 U
MW-41	MW-41-20101105	11/5/2010	930	31	< 5 U
MW-41	MW-41-20110304-FS	3/4/2011	120	20	< 0.85 U
MW-41	MW-41-20110523-FS	5/23/2011	370	15	
MW-41	MW-41-20111025	10/25/2011	420	18	< 5 U
MW-41	MW-41-20121020	10/20/2012	620	23	< 0.11 U

TABLE 7
HISTORICAL SUMMARY OF GROUNDWATER CONCENTRATIONS FOR TCE AND DAUGHTER-PRODUCTS
Whirlpool Facility - Fort Smith, Arkansas

Well ID	Sample Name	Date	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride
MW-41	MW-41-20121020-FD	10/20/2012	550	21	< 0.11 U
MW-41	MW-41-101613	10/16/2013	520	24	< 0.11 U
MW-41	MW-41-201403	3/7/2014	501	19.7	0.68 J
MW-41	MW-41-201405	5/14/2014	518	18.0	0.50 J
MW-41	DUP-2-201407	7/30/2014	511	19.1	< 0.50 U
MW-41	MW-41-201407	7/30/2014	480	19.7	< 0.50 U
MW-41	MW-41-201410	10/15/2014	491	16.9	< 0.50 U
MW-41	MW-41-201501	1/14/2015	425	15.6	< 0.50 U
MW-41	DUP-02-201504	4/15/2015	410	13.5	< 0.50
MW-41	MW-41-201504	4/15/2015	386	15.2	0.27 J
MW-41R	DUP-03-201507	7/21/2015	43.0	2.8	< 0.13 U
MW-41R	MW-41R-201507	7/21/2015	40.4	3.3	< 0.13 U
MW-41R	DUP-07-201510	10/6/2015	46.4	35.2	0.33 J
MW-41R	MW-41R-201510	10/6/2015	48.7	36.7	0.39 J
MW-41R	DUP-07-201601	1/12/2016	56.6	40.1	0.35 J
MW-41R	MW-41R-201601	1/12/2016	59.9	40.9	0.38 J
MW-41R	DUP-03-201605	5/3/2016	82.9	17.5	0.20 J
MW-41R	MW-41R-201605	5/3/2016	87.8	17.3	0.18 J
MW-42B	MW-42B-20031114	11/14/2003	481	21.1	< 10 U
MW-42B	MW-42B-20040415	4/15/2004	856	29.3	< 10 U
MW-42B	MW-42B-20040923	9/23/2004	400	19.8	< 10 U
MW-42B	MW-42B-20050405	4/5/2005	1310	32	< 10 U
MW-42B	MW-42B-20050927	9/27/2005	1470	27.3	< 10 U
MW-42B	MW-42B-20060315	3/15/2006	2270	37.2	< 10 U
MW-42B	MW-42B-20061010	10/10/2006	2000	35	2 J
MW-42B	MW-42B-20070417	4/17/2007	1600	36.8	< 10 U
MW-42B	MW-42B-20070918	9/18/2007	2100	39	4 J
MW-42B	MW-42B-20080429	4/29/2008	1600	33	3 J
MW-42B	MW-42B-20081209	12/9/2008	1100	30	< 5 U
MW-42B	MW-42B-20090425	4/25/2009	1500	35	< 5 U
MW-43	MW-43-20031114	11/14/2003	223	18.5	< 10 U
MW-43	MW-43-20040415	4/15/2004	510	12.1	< 10 U
MW-43	MW-43-20040923	9/23/2004	64.7	6.31	< 10 U
MW-43	MW-43-20050405	4/5/2005	304	11.9	< 10 U
MW-43	MW-43-20050927	9/27/2005	518	21.3	< 10 U
MW-43	MW-43-20060315	3/15/2006	1300	35	< 10 U
MW-43	MW-43-20061011	10/11/2006	920	30	< 10 U
MW-43	MW-43-20070417	4/17/2007	220	14.1	< 10 U
MW-43	MW-43-20070918	9/18/2007	350	13	< 10 U
MW-43	MW-43-20080428	4/28/2008	120	4 J	< 10 U
MW-43	MW-43-20081209	12/9/2008	150	5.3	< 5 U
MW-43	MW-43-20090425	4/25/2009	120	< 5 U	< 5 U
MW-43	MW-43-20090507	5/7/2009	180	6	< 5 U
MW-43	MW-43-20090508	5/8/2009	180	6	< 5 U
MW-46R	MW-46R-20031114	11/14/2003	39.9	< 5 U	< 10 U
MW-46R	MW-46R-20040415	4/15/2004	77.1	27.2	< 10 U
MW-46R	MW-46R-20040923	9/23/2004	142	21.2	< 10 U
MW-46R	MW-46R-20050406	4/6/2005	210	28.4	< 10 U
MW-46R	MW-46R-20050928	9/28/2005	222	15.6	< 10 U
MW-46R	MW-46R-20060316	3/16/2006	111	6.37	< 10 U
MW-46R	MW-46R-20060406	4/6/2006	300	< 5 U	< 10 U
MW-46R	MW-46R-20061011	10/11/2006	450	8	< 10 U
MW-46R	MW-46R-20070417	4/17/2007	440	12.5	< 10 U
MW-46R	MW-46R-20070918	9/18/2007	420	9	< 10 U
MW-46R	MW-46R-20080429	4/29/2008	430	8	< 10 U
MW-46R	MW-46R-20081209	12/9/2008	310	19	< 5 U
MW-46R	MW-46R-20090425	4/25/2009	460	11	< 5 U
MW-46R	MW-46R-20090527	5/27/2009	< 5 U	< 5 U	< 5 U
MW-46R	MW-46R-20091027	10/27/2009	390	12	< 5 U
MW-46R	MW-46R-20091221-FS	12/21/2009	410	10	< 1.6 U
MW-46R	MW-46R-20100511	5/11/2010	610	13	< 5 U
MW-46R	MW-46R-20101105	11/5/2010	650	12	< 5 U
MW-46R	MW-46R-20110307-FS	3/7/2011	670	14	< 0.85 U
MW-46R	MW-46R-20110322	3/22/2011	680	11	< 5 U
MW-46R	MW-46R-20110523-FS	5/23/2011	610	13	
MW-46R	MW-46R-20111026	10/26/2011	460	10	< 5 U
MW-46R	MW-46R-20120418	4/18/2012	680	14	< 5 U
MW-46R	MW-46R-20121020	10/20/2012	410	7.9	0.44 J
MW-46R	MW-46R-20130423	4/23/2013	470	7.6	0.91 J
MW-46R	MW-46R-101813	10/18/2013	410	11	< 0.11 U
MW-46R	MW-46R-201403	3/7/2014	469	12.8	0.46 J
MW-46R	MW-46R-201405	5/14/2014	471	12.8	0.76 J
MW-46R	MW-46R-201407	7/29/2014	472	13.7	0.64 J
MW-46R	DUP-03-201410	10/16/2014	373	25.2	< 0.50 U
MW-46R	MW-46R-201410	10/16/2014	410	24.6	< 0.50 U
MW-46R	DUP-03-201501	1/13/2015	428	12.0	0.90 J
MW-46R	MW-46R-201501	1/13/2015	452	11.6	0.71 J
MW-46R	DUP-07-201504	4/14/2015	482	13.9	0.51 J

TABLE 7
HISTORICAL SUMMARY OF GROUNDWATER CONCENTRATIONS FOR TCE AND DAUGHTER-PRODUCTS
Whirlpool Facility - Fort Smith, Arkansas

Well ID	Sample Name	Date	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride
MW-46R	MW-46R-201504	4/14/2015	220 J	13.8	0.47 J
MW-46R	DUP-05-201507	7/21/2015	444	10.3	0.40 J
MW-46R	MW-46R-201507	7/21/2015	460	11.2	0.37 J
MW-46R	MW-46R-201510	10/7/2015	371	10.2	0.43 J
MW-46R	MW-46R-201601	1/12/2016	432	10.9	0.56 J
MW-46R	DUP-10-201605	5/3/2016	461	11.1	0.52 J
MW-46R	MW-46R-201605	5/3/2016	445	12.6	0.40 J
MW-46R	MW-46R-201611	11/8/2016	411	10.3	0.79 J
MW-50	MW-50-20040415	4/15/2004	6.51	< 5 U	< 10 U
MW-50	MW-50-20040923	9/23/2004	< 5 U	< 5 U	< 10 U
MW-50	MW-50-20041210	12/10/2004	< 5 U	< 5 U	< 10 U
MW-50	MW-50-20050406	4/6/2005	< 5 U	< 5 U	< 10 U
MW-50	MW-50-20050928	9/28/2005	< 5 U	< 5 U	< 10 U
MW-50	MW-50-20060317	3/17/2006	< 5 U	< 5 U	< 10 U
MW-50	MW-50-20061012	10/12/2006	< 5 U	< 5 U	< 10 U
MW-50	MW-50-20070419	4/19/2007	< 5 U	< 5 U	< 10 U
MW-50	MW-50-20070919	9/19/2007	< 5 U	< 5 U	< 10 U
MW-50	MW-50-20080429	4/29/2008	< 5 U	< 5 U	< 10 U
MW-50	MW-50-20081210	12/10/2008	< 5 U	< 5 U	< 5 U
MW-50	MW-50-20090424	4/24/2009	< 5 U	< 5 U	< 5 U
MW-50	MW-50-20091027	10/27/2009	< 5 U	< 5 U	< 5 U
MW-50	MW-50-20100511	5/11/2010	< 5 U	< 5 U	< 5 U
MW-50	MW-50-20101105	11/5/2010	< 5 U	< 5 U	< 5 U
MW-50	MW-50-20110323	3/23/2011	< 5 U	< 5 U	< 5 U
MW-50	MW-50-20111025	10/25/2011	< 5 U	< 5 U	< 5 U
MW-50	MW-50-20121017	10/17/2012	< 1.6 U	< 0.56 U	< 0.11 U
MW-50	MW-50-101613	10/16/2013	1.6 J	< 0.56 U	< 0.11 U
MW-50	MW-50-201403	3/6/2014	< 0.17 U	< 0.080 U	< 0.13 U
MW-50	MW-50-201405	5/13/2014	< 0.17 U	< 0.080 U	< 0.13 U
MW-50	MW-50-201407	7/28/2014	< 0.50 U	< 0.50 U	< 0.50 U
MW-50	MW-50-201410	10/14/2014	< 0.50 U	< 0.50 U	< 0.50 U
MW-50	MW-50-201501	1/13/2015	< 0.50 U	< 0.50 U	< 0.50 U
MW-50	MW-50-201504	4/14/2015	< 0.50 U	< 0.50 U	< 0.50 U
MW-50R	MW-50R-201507	7/21/2015	0.22 J	< 0.080 U	< 0.13 U
MW-50R	MW-50R-201510	10/6/2015	0.35 J	< 0.080 U	< 0.13 U
MW-50R	MW-50R-201601	1/11/2016	0.42 J	< 0.080 U	< 0.13 U
MW-50R	MW-50R-201605	5/2/2016	0.46 J	< 0.080 U	< 0.13 U
MW-50R	MW-50R-201611	11/7/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-55	MW-55-20041209	12/9/2004	< 5 U	< 5 U	< 10 U
MW-55	MW-55-20050408	4/8/2005	< 5 U	< 5 U	< 10 U
MW-55	MW-55-20050928	9/28/2005	< 5 U	< 5 U	< 10 U
MW-55	MW-55-20060316	3/16/2006	< 5 U	< 5 U	< 10 U
MW-55	MW-55-20061013	10/13/2006	2 J	< 5 U	< 10 UJ
MW-55	MW-55-20070419	4/19/2007	2.6 J	< 5 U	< 10 U
MW-55	MW-55-20070919	9/19/2007	5 J	< 5 U	< 10 U
MW-55	MW-55-20080429	4/29/2008	< 5 U	< 5 U	< 10 U
MW-55	MW-55-20081210	12/10/2008	< 5 U	< 5 U	< 5 U
MW-55	MW-55-20090424	4/24/2009	< 5 U	< 5 U	< 5 U
MW-55	MW-55-20091027	10/27/2009	3.6 J	< 5 U	< 5 U
MW-55	MW-55-20100512	5/12/2010	4.2 J	< 5 U	< 5 U
MW-55	MW-55-20101106	11/6/2010	14	< 5 U	< 5 U
MW-55	MW-55-20110323	3/23/2011	5.5	< 5 U	< 5 U
MW-55	MW-55-20111025	10/25/2011	7	< 5 U	< 5 U
MW-55	MW-55-20121020	10/20/2012	9.2	< 0.56 U	< 0.11 U
MW-55	MW-55-101613	10/16/2013	13	< 0.56 U	< 0.11 U
MW-55R	MW-55R-201507	7/20/2015	8.2	0.42 J	0.13 J
MW-55R	MW-55R-201510	10/6/2015	4.4	0.53 J	0.14 J
MW-55R	MW-55R-201601	1/12/2016	0.26 J	< 0.080 U	< 0.13 U
MW-55R	MW-55R-201605	5/2/2016	2.1	< 0.080 U	< 0.13 U
MW-55R	MW-55R-201611	11/7/2016	3.1	< 0.080 U	< 0.13 U
MW-56	MW-56-20041210	12/10/2004	90.2	< 5 U	< 10 U
MW-56	MW-56-20050408	4/8/2005	88.2	< 5 U	< 10 U
MW-56	MW-56-20050928	9/28/2005	207	< 5 U	< 10 U
MW-56	MW-56-20060316	3/16/2006	8.7	< 5 U	< 10 U
MW-56	MW-56-20061014	10/14/2006	110	2 J	< 10 UJ
MW-56	MW-56-20070419	4/19/2007	< 5 U	< 5 U	< 10 U
MW-56	MW-56-20070919	9/19/2007	38	< 5 U	< 10 U
MW-56	MW-56-20080429	4/29/2008	4 J	< 5 U	< 10 U
MW-56	MW-56-20081210	12/10/2008	93	< 5 U	< 5 U
MW-56	MW-56-20090424	4/24/2009	14	< 5 U	< 5 U
MW-56	MW-56-20091027	10/27/2009	8.7	< 5 U	< 5 U
MW-56	MW-56-20100512	5/12/2010	230	6.4	< 5 U
MW-56	MW-56-20110323	3/23/2011	71	2.6 J	< 5 U
MW-56	MW-56-20111025	10/25/2011	150	11	1.9 J
MW-56	MW-56-20121020	10/20/2012	470	11	< 0.11 U
MW-56	MW-56-101713	10/17/2013	590	17	< 0.11 U
MW-56	MW-56-201403	3/7/2014	618	15.3	0.15 J
MW-56	MW-56-201405	6/11/2014	307	17.6	0.16 J

TABLE 7
HISTORICAL SUMMARY OF GROUNDWATER CONCENTRATIONS FOR TCE AND DAUGHTER-PRODUCTS
Whirlpool Facility - Fort Smith, Arkansas

Well ID	Sample Name	Date	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride
MW-56	MW-56-201407	7/29/2014	516	19.3	< 0.50 U
MW-56	MW-56-201410	10/15/2014	408	12.1	< 0.50 U
MW-56	MW-56-201501	1/13/2015	326	10	< 0.50 U
MW-56	MW-56-201504	4/16/2015	495	8.2	< 0.13 U
MW-56R	MW-56R-201507	7/20/2015	156	8.0	0.31 J
MW-56R	MW-56R-201510	10/6/2015	278	18.1	0.42 J
MW-56R	MW-56R-201601	1/11/2016	408	19.2	0.32 J
MW-56R	MW-56R-201605	5/3/2016	734	19.7	0.52 J
MW-56R	MW-56R-201611	11/8/2016	679	27.8	0.37 J
MW-57	MW-57-20041210	12/10/2004	207	6.72	< 10 U
MW-57	MW-57-20050408	4/8/2005	282	6.83	< 10 U
MW-57	MW-57-20050928	9/28/2005	96	< 5 U	< 10 U
MW-57	MW-57-20060316	3/16/2006	254	7.56	< 10 U
MW-57	MW-57-20061013	10/13/2006	64	< 5 U	< 10 UJ
MW-57	MW-57-20070419	4/19/2007	201	3.77 J	< 10 U
MW-57	MW-57-20070920	9/20/2007	250	5 J	< 10 U
MW-57	MW-57-20080430	4/30/2008	14	< 5 U	< 10 U
MW-57	MW-57-20081210	12/10/2008	130	7.4	< 5 U
MW-57	MW-57-20090424	4/24/2009	96	4.2 J	< 5 U
MW-57	MW-57-20091027	10/27/2009	100	2.6 J	< 5 U
MW-57	MW-57-20100512	5/12/2010	210	6	< 5 U
MW-57	MW-57-20110323	3/23/2011	110	2.3 J	< 5 U
MW-57	MW-57-20111025	10/25/2011	59	2 J	< 5 U
MW-57	MW-57-20121020	10/20/2012	120	5.1	< 0.11 U
MW-57	MW-57-101713	10/17/2013	210	7.4	< 0.11 U
MW-57	MW-57-201403	3/7/2014	134	3.0 J	0.14 J
MW-57	MW-57-201405	6/11/2014	167	4.4 J	< 0.13 U
MW-57	MW-57-201407	7/29/2014	308	8.2	< 0.50 U
MW-57	MW-57-201410	10/15/2014	172	4.2 J	< 0.50 U
MW-57	MW-57-201501	1/13/2015	177	5.4	< 0.50 U
MW-57	MW-57-201504	4/16/2015	194	4.8	< 0.50 U
MW-57R	MW-57R-201507	7/20/2015	409	10.6	0.53 J
MW-57R	MW-57R-201510	10/6/2015	400	13.0	0.42 J
MW-57R	MW-57R-201601	1/11/2016	422	15.7	0.48 J
MW-57R	MW-57R-201605	5/3/2016	425	12.8	0.51 J
MW-57R	DUP-07-201611	11/8/2016	453	24.3	0.45 J
MW-57R	MW-57R-201611	11/8/2016	441	23.0	0.44 J
MW-58	MW-58-20041209	12/9/2004	526	14.5	< 10 U
MW-58	MW-58-20050407	4/7/2005	809	18.8	< 10 U
MW-58	MW-58-20050928	9/28/2005	486	10.9	< 10 U
MW-58	MW-58-20060316	3/16/2006	421	8.66	< 10 U
MW-58	MW-58-20061013	10/13/2006	620	14	< 10 UJ
MW-58	MW-58-20070419	4/19/2007	784	30.7	< 25 U
MW-58	MW-58-20070419-FD	4/19/2007	717	9.54 J	< 25 U
MW-58	MW-58-20070919	9/19/2007	650	17	< 10 U
MW-58	MW-58-20070919-FD	9/19/2007	640	16	< 10 U
MW-58	MW-58-20080430	4/30/2008	630	15	< 10 U
MW-58	MW-58-20080430-FD	4/30/2008	580	14	< 10 U
MW-58	MW-58-20081211	12/11/2008	530	12	< 5 U
MW-58	MW-58-20081211-FD	12/11/2008	510	13	< 5 U
MW-58	MW-58-20090425	4/25/2009	590	14	< 5 U
MW-58	MW-58-20090425-FD	4/25/2009	580	15	< 5 U
MW-58	MW-58-20091028	10/28/2009	480	11	< 5 U
MW-58	MW-58-20091028-FD	10/28/2009	480	11	< 5 U
MW-58	MW-58-20100512	5/12/2010	660	14	< 5 U
MW-58	MW-58-20101106-FD	11/6/2010	560	11	< 5 U
MW-58	MW-58-20101106	11/6/2010	580	12	< 5 U
MW-58	MW-58-20110324	3/24/2011	710	12	< 5 U
MW-58	MW-58-20110324-FD	3/24/2011	700	14	1.1 J
MW-58	MW-58-20121020	10/20/2012	440	18	0.84 J
MW-58	MW-58-101713	10/17/2013	410	13	1.5 J
MW-58	MW-58-20131017-FD	10/17/2013	420	12	1.1 J
MW-58	MW-58-201403	3/7/2014	293	22.3	0.93 J
MW-58	MW-58-201405	5/12/2014	397	12.1	0.72 J
MW-58	MW-58-201407	7/29/2014	399	12.7	0.76 J
MW-58	MW-58-201410	10/15/2014	360	10.8	0.68 J
MW-58	MW-58-201501	1/14/2015	385	14.7	0.71 J
MW-58	MW-58-201504	4/16/2015	356	19.7	1.5
MW-58R	MW-58R-201507	7/21/2015	337	9.5	0.57 J
MW-58R	MW-58R-201510	10/8/2015	299	10.5	0.55 J
MW-58R	DUP-10-201601	1/12/2016	319	29.4	0.66 J
MW-58R	MW-58R-201601	1/12/2016	312	28.7	0.67 J
MW-58R	DUP-04-201605	5/4/2016	308	25.2	0.64 J
MW-58R	MW-58R-201605	5/4/2016	352	29.7	0.81 J
MW-58R	MW-58R-201611	11/10/2016	< 0.17 U	28.5	0.85 J
MW-58R	MW-58R-201612	12/14/2016	265	30.3	0.61 J
MW-60	MW-60-20050401	4/1/2005	< 5 U	< 5 U	< 10 U
MW-60	MW-60-20050930	9/30/2005	< 5 U	< 5 U	< 10 U

TABLE 7
HISTORICAL SUMMARY OF GROUNDWATER CONCENTRATIONS FOR TCE AND DAUGHTER-PRODUCTS
Whirlpool Facility - Fort Smith, Arkansas

Well ID	Sample Name	Date	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride
MW-60	MW-60-20060317	3/17/2006	< 5 U	< 5 U	< 10 U
MW-60	MW-60-20061012	10/12/2006	< 5 U	< 5 U	< 10 U
MW-60	MW-60-20070419	4/19/2007	< 5 U	< 5 U	< 10 U
MW-60	MW-60-20070919	9/19/2007	< 5 U	< 5 U	< 10 U
MW-60	MW-60-20080429	4/29/2008	< 5 U	< 5 U	< 10 U
MW-60	MW-60-20081210	12/10/2008	< 5 U	< 5 U	< 5 U
MW-60	MW-60-20090424	4/24/2009	< 5 U	< 5 U	< 5 U
MW-60	MW-60-20091027	10/27/2009	< 5 U	< 5 U	< 5 U
MW-60	MW-60-20100511	5/11/2010	< 5 U	< 5 U	< 5 U
MW-60	MW-60-20101104	11/4/2010	< 5 U	< 5 U	< 5 U
MW-60	MW-60-20110323	3/23/2011	< 5 U	< 5 U	< 5 U
MW-60	MW-60-20111025	10/25/2011	< 5 U	< 5 U	< 5 U
MW-60	MW-60-20121017	10/17/2012	< 1.6 U	< 0.56 U	< 0.11 U
MW-60	MW-60-101513	10/15/2013	< 1.6 U	< 0.56 U	< 0.11 U
MW-60	MW-60-201403	3/6/2014	< 0.17 U	< 0.080 U	< 0.13 U
MW-60	MW-60-201405	5/13/2014	0.21 J	< 0.080 U	< 0.13 U
MW-60	MW-60-201407	7/28/2014	1.0 J	< 0.50 U	< 0.50 U
MW-60	MW-60-201410	10/14/2014	< 0.50 U	< 0.50 U	< 0.50 U
MW-60	MW-60-201501	1/13/2015	< 0.50 U	< 0.50 U	< 0.50 U
MW-60	MW-60-201504	4/14/2015	< 0.50 U	< 0.50 U	< 0.50 U
MW-60R	MW-60R-201507	7/21/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-60R	MW-60R-201510	10/6/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-60R	MW-60R-201601	1/11/2016	0.22 J	< 0.080 U	< 0.13 U
MW-60R	MW-60R-201605	5/2/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-60R	MW-60R-201611	11/8/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-61	MW-61-20050401	4/1/2005	< 5 U	< 5 U	< 10 U
MW-61	MW-61-20050401-FD	4/1/2005	< 5 U	< 5 U	< 10 U
MW-61	MW-61-20050930	9/30/2005	< 5 U	< 5 U	< 10 U
MW-61	MW-61-20060317	3/17/2006	< 5 U	< 5 U	< 10 U
MW-61	MW-61-20061012	10/12/2006	< 5 U	< 5 U	< 10 U
MW-61	MW-61-20070419	4/19/2007	< 5 U	< 5 U	< 10 U
MW-61	MW-61-20070919	9/19/2007	< 5 U	< 5 U	< 10 U
MW-61	MW-61-20080429	4/29/2008	< 5 U	< 5 U	< 10 U
MW-61	MW-61-20081210	12/10/2008	< 5 U	< 5 U	< 5 U
MW-61	MW-61-20090424	4/24/2009	4 J	< 5 U	< 5 U
MW-61	MW-61-20091027	10/27/2009	< 5 U	< 5 U	< 5 U
MW-61	MW-61-20100511	5/11/2010	< 5 U	< 5 U	< 5 U
MW-61	MW-61-20101104	11/4/2010	< 5 U	< 5 U	< 5 U
MW-61	MW-61-20110323	3/23/2011	1.8 J	< 5 U	< 5 U
MW-61	MW-61-20111025	10/25/2011	< 5 U	< 5 U	< 5 U
MW-61	MW-61-20121017	10/17/2012	2.4 J	< 0.56 U	< 0.11 U
MW-61	MW-61-101613	10/16/2013	4.0 J	< 0.56 U	< 0.11 U
MW-61	MW-61-201403	3/6/2014	4.7 J	< 0.080 U	< 0.13 U
MW-61	MW-61-201405	5/13/2014	6.6	< 0.080 U	< 0.13 U
MW-61	MW-61-201407	7/28/2014	8.1	< 0.50 U	< 0.50 U
MW-61	MW-61-201410	10/14/2014	7.9	< 0.50 U	< 0.50 U
MW-61	MW-61-201501	1/13/2015	10.2	< 0.50 U	< 0.50 U
MW-61	MW-61-201504	4/14/2015	10.9	< 0.50 U	< 0.50 U
MW-61R	MW-61R-201507	7/21/2015	14.7	< 0.080 U	< 0.13 U
MW-61R	MW-61R-GW-091815	9/18/2015	16.5	< 0.080 U	< 0.13 U
MW-61R	DUP-02-201510	10/8/2015	13.3	< 0.080 U	< 0.13 U
MW-61R	MW-61R-201510	10/8/2015	11.7	< 0.080 U	< 0.13 U
MW-61R	MW-61R-201511	11/4/2015	9.2	1.1	< 0.13 U
MW-61R	MW-61R-201512	12/1/2015	5.0	4.6	< 0.13 U
MW-61R	MW-61R-201601	1/8/2016	3.9	4.6	< 0.13 U
MW-61R	MW-61R-201605	5/3/2016	5.3	3.8	< 0.13 U
MW-61R	MW-61R-201611	11/7/2016	2.3	2.9	< 0.13 U
MW-62	MW-62-20050401	4/1/2005	< 5 U	< 5 U	< 10 U
MW-62	MW-62-20050930	9/30/2005	< 5 U	< 5 U	< 10 U
MW-62	MW-62-20060316	3/16/2006	< 5 U	< 5 U	< 10 U
MW-62	MW-62-20061012	10/12/2006	< 5 U	< 5 U	< 10 U
MW-62	MW-62-20070419	4/19/2007	< 5 U	< 5 U	< 10 U
MW-62	MW-62-20070919	9/19/2007	< 5 U	< 5 U	< 10 U
MW-62	MW-62-20080429	4/29/2008	< 5 U	< 5 U	< 10 U
MW-62	MW-62-20081210	12/10/2008	< 5 U	< 5 U	< 5 U
MW-62	MW-62-20090424	4/24/2009	< 5 U	< 5 U	< 5 U
MW-62	MW-62-20091027	10/27/2009	< 5 U	< 5 U	< 5 U
MW-62	MW-62-20100511	5/11/2010	< 5 U	< 5 U	< 5 U
MW-62	MW-62-20110323	3/23/2011	< 5 U	< 5 U	< 5 U
MW-62	MW-62-20111025	10/25/2011	1.9 J	< 5 U	< 5 U
MW-62	MW-62-20121017	10/17/2012	< 1.6 U	< 0.56 U	< 0.11 U
MW-62	MW-62-101713	10/17/2013	< 1.6 U	< 0.56 U	< 0.11 U
MW-62	MW-62-201403	3/7/2014	0.18 J	< 0.080 U	< 0.13 U
MW-62	MW-62-201405	5/14/2014	0.62 J	< 0.080 U	< 0.13 U
MW-62	MW-62-201407	7/29/2014	< 0.50 U	< 0.50 U	< 0.50 U
MW-62	MW-62-201410	10/14/2014	< 0.50 U	< 0.50 U	< 0.50 U
MW-62	MW-62-201501	1/13/2015	< 0.50 U	< 0.50 U	< 0.50 U
MW-62	MW-62-201504	4/14/2015	< 0.50 U	< 0.50 U	< 0.50 U

TABLE 7
HISTORICAL SUMMARY OF GROUNDWATER CONCENTRATIONS FOR TCE AND DAUGHTER-PRODUCTS
Whirlpool Facility - Fort Smith, Arkansas

Well ID	Sample Name	Date	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride
MW-62R	MW-62R-201507	7/21/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-62R	MW-62R-201510	10/6/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-62R	MW-62R-201601	1/11/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-62R	MW-62R-201605	5/3/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-62R	MW-62R-201611	11/7/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-63	MW-63-20050401	4/1/2005	8.14	< 5 U	< 10 U
MW-63	MW-63-20050930	9/30/2005	< 5 U	< 5 U	< 10 U
MW-63	MW-63-20060316	3/16/2006	9.76	< 5 U	< 10 U
MW-63	MW-63-20060406	4/6/2006	11.6	< 5 U	< 10 U
MW-63	MW-63-20061012	10/12/2006	4 J	< 5 U	< 10 U
MW-63	MW-63-20070419	4/19/2007	4.08 J	< 5 U	< 10 U
MW-63	MW-63-20070919	9/19/2007	8	< 5 U	< 10 U
MW-63	MW-63-20080430	4/30/2008	3 J	< 5 U	< 10 U
MW-63	MW-63-20081210	12/10/2008	< 5 U	< 5 U	< 5 U
MW-63	MW-63-20090424	4/24/2009	4.3 J	< 5 U	< 5 U
MW-63	MW-63-20091027	10/27/2009	7.7	< 5 U	< 5 U
MW-63	MW-63-20100511	5/11/2010	7.6	< 5 U	< 5 U
MW-63	MW-63-20101106	11/6/2010	11	< 5 U	< 5 U
MW-63	MW-63-20110323	3/23/2011	12	< 5 U	< 5 U
MW-63	MW-63-20111025	10/25/2011	9.8	< 5 U	< 5 U
MW-63	MW-63-20121019	10/19/2012	< 1.6 U	< 0.56 U	< 0.11 U
MW-63	MW-63-101713	10/17/2013	7.5	< 0.56 U	< 0.11 U
MW-63	MW-63-201403	3/7/2014	9.4	1.3 J	< 0.13 U
MW-63	MW-63-201405	5/14/2014	12.2	0.61 J	0.13 J
MW-63	MW-63-201407	7/28/2014	8.3	0.99 J	< 0.50 U
MW-63	MW-63-201410	10/14/2014	9.4	0.98 J	< 0.50 U
MW-63	MW-63-201501	1/13/2015	8.2	1.0	< 0.50 U
MW-63	MW-63-201504	4/14/2015	9.2	0.99 J	< 0.50 U
MW-63R	MW-63R-201507	7/21/2015	5.6	0.70 J	< 0.13 U
MW-63R	MW-63R-201510	10/8/2015	3.9	0.70 J	< 0.13 U
MW-63R	MW-63R-201601	1/12/2016	3.2	0.39 J	< 0.13 U
MW-63R	MW-63R-201605	5/2/2016	3.3	0.55 J	< 0.13 U
MW-63R	MW-63R-201611	11/7/2016	2.9	0.21 J	< 0.13 U
MW-65	MW-65-20061011	10/11/2006	470	19	< 10 U
MW-65	MW-65-20061011-FD	10/11/2006	560	18	< 10 U
MW-65	MW-65-20070419	4/19/2007	1350	23.4	< 10 U
MW-65	MW-65-20070920	9/20/2007	580	17	< 10 U
MW-65	MW-65-20080430	4/30/2008	570	16	< 10 U
MW-65	MW-65-20081211	12/11/2008	460	11	< 5 U
MW-65	MW-65-20090424	4/24/2009	620	19	< 5 U
MW-65	MW-65-20101107	11/7/2010	400	11	< 5 U
MW-65	MW-65-20110304-FS	3/4/2011	370	13	< 0.85 U
MW-65	MW-65-20111025	10/25/2011	310	10	< 5 U
MW-65	MW-65-20121020	10/20/2012	280	8.9	< 0.11 U
MW-65	MW-65-101713	10/17/2013	220	8.6	< 0.11 U
MW-65	MW-65-201403	3/8/2014	199	6.6	< 0.13 U
MW-65	MW-65-201405	5/14/2014	195	6.9	< 0.13 U
MW-65	MW-65-201407	7/30/2014	17.1	< 0.50 U	< 0.50 U
MW-65	MW-65-201410	10/14/2014	30.8	0.54 J	< 0.50 U
MW-65	MW-65-201501	1/13/2015	19.2	< 0.50 U	< 0.50 U
MW-65	MW-65-201504	4/15/2015	16.0	< 0.50 U	< 0.50 U
MW-65	MW-65-201507	7/20/2015	26.3	0.38 J	< 0.13 U
MW-65	MW-65-201510	10/7/2015	0.28 J	< 0.080 U	< 0.13 U
MW-65	MW-65-201511	11/4/2015	7.7	< 0.080 U	< 0.13 U
MW-65	MW-65-201512	12/2/2015	6.6	< 0.080 U	< 0.13 U
MW-65	MW-65-201601	1/11/2016	14.5	0.32 J	< 0.13 U
MW-65	MW-65-201605	5/3/2016	21.5	0.35 J	< 0.13 U
MW-66	MW-66-20060406	4/6/2006	< 5 U	< 5 U	< 10 U
MW-66	MW-66-20061012	10/12/2006	2 J	< 5 U	< 10 U
MW-66	MW-66-20070418	4/18/2007	< 5 U	< 5 U	< 10 U
MW-66	MW-66-20070919	9/19/2007	4 J	< 5 U	< 10 U
MW-66	MW-66-20080429	4/29/2008	< 5 U	< 5 U	< 10 U
MW-66	MW-66-20081210	12/10/2008	< 5 U	< 5 U	< 5 U
MW-66	MW-66-20090425	4/25/2009	< 5 U	< 5 U	< 5 U
MW-66	MW-66-20091028	10/28/2009	< 5 U	< 5 U	< 5 U
MW-66	MW-66-20100511	5/11/2010	< 5 U	< 5 U	< 5 U
MW-66	MW-66-20101103	11/3/2010	< 5 U	< 5 U	< 5 U
MW-66	MW-66-20110324	3/24/2011	1.6 J	< 5 U	< 5 U
MW-66	MW-66-20111026	10/26/2011	1.8 J	< 5 U	< 5 U
MW-66	MW-66-20121017	10/17/2012	< 1.6 U	< 0.56 U	< 0.11 U
MW-66	MW-66-101713	10/17/2013	2.1 J	< 0.56 U	< 0.11 U
MW-66	MW-66-201403	3/7/2014	3.5 J	< 0.080 U	< 0.13 U
MW-66	MW-66-201405	5/13/2014	3.1 J	< 0.080 U	< 0.13 U
MW-66	MW-66-201407	7/28/2014	2.6 J	< 0.50 U	< 0.50 U
MW-66	MW-66-201410	10/13/2014	2.3 J	< 0.50 U	< 0.50 U
MW-66	MW-66-201501	1/14/2015	2.4	< 0.50 U	< 0.50 U
MW-66	MW-66-201504	4/15/2015	2.6	< 0.50 U	< 0.50 U
MW-66	MW-66-201507	7/20/2015	3.3	0.22 J	< 0.13 U

TABLE 7
HISTORICAL SUMMARY OF GROUNDWATER CONCENTRATIONS FOR TCE AND DAUGHTER-PRODUCTS
Whirlpool Facility - Fort Smith, Arkansas

Well ID	Sample Name	Date	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride
MW-66	MW-66-201510	10/6/2015	2.3	0.18 J	< 0.13 U
MW-66	MW-66-201601	1/11/2016	0.53 J	< 0.080 U	< 0.13 U
MW-66	MW-66-201605	5/2/2016	2.6	0.20 J	< 0.13 U
MW-67	MW-67-20060406	4/6/2006	< 5 U	< 5 U	< 10 U
MW-67	MW-67-20061012	10/12/2006	1 J	< 5 U	< 10 U
MW-67	MW-67-20070419	4/19/2007	< 5 U	< 5 U	< 10 U
MW-67	MW-67-20070918	9/18/2007	< 5 U	< 5 U	< 10 U
MW-67	MW-67-20080429	4/29/2008	< 5 U	< 5 U	< 10 U
MW-67	MW-67-20081210	12/10/2008	< 5 U	< 5 U	< 5 U
MW-67	MW-67-20090425	4/25/2009	< 5 U	< 5 U	< 5 U
MW-67	MW-67-20091028	10/28/2009	< 5 U	< 5 U	< 5 U
MW-67	MW-67-20100511	5/11/2010	< 5 U	< 5 U	< 5 U
MW-67	MW-67-20101103	11/3/2010	< 5 U	< 5 U	< 5 U
MW-67	MW-67-20110324	3/24/2011	< 5 U	< 5 U	< 5 U
MW-67	MW-67-20111026	10/26/2011	< 5 U	< 5 U	< 5 U
MW-67	MW-67-20121017	10/17/2012	< 1.6 U	< 0.56 U	< 0.11 U
MW-67	MW-67-101713	10/17/2013	< 1.6 U	< 0.56 U	< 0.11 U
MW-67	MW-67-201403	3/7/2014	< 0.17 U	< 0.080 U	< 0.13 U
MW-67	MW-67-201405	5/13/2014	< 0.17 U	< 0.080 U	< 0.13 U
MW-67	MW-67-201407	7/28/2014	< 0.50 U	< 0.50 U	< 0.50 U
MW-67	MW-67-201410	10/13/2014	< 0.50 U	< 0.50 U	< 0.50 U
MW-67	MW-67-201501	1/12/2015	1.3	< 0.50 U	< 0.50 U
MW-67	MW-67-201504	4/15/2015	0.77 J	< 0.50 U	< 0.50 U
MW-67R	MW-67R-201507	7/20/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-67R	MW-67R-201510	10/6/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-67R	MW-67R-201601	1/11/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-67R	MW-67R-201605	5/2/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-68	MW-68-20090115	1/15/2009	< 5 U	< 5 U	< 5 U
MW-68	MW-68-20090424	4/24/2009	< 5 U	< 5 U	< 5 U
MW-68	MW-68-20091028	10/28/2009	< 5 U	< 5 U	< 5 U
MW-68	MW-68-20100513	5/13/2010	< 5 U	< 5 U	< 5 U
MW-68	MW-68-20101106	11/6/2010	9.5	< 5 U	< 5 U
MW-68	MW-68-20111026	10/26/2011	< 5 U	< 5 U	< 5 U
MW-68	MW-68-20121017	10/17/2012	< 1.6 U	< 0.56 U	< 0.11 U
MW-68	MW-68-101613	10/16/2013	< 1.6 U	< 0.56 U	< 0.11 U
MW-68	MW-68-201403	3/6/2014	< 0.17 U	< 0.080 U	< 0.13 U
MW-68	MW-68-201405	5/14/2014	0.49 J	< 0.080 U	< 0.13 U
MW-68	MW-68-201407	7/29/2014	< 0.50 U	< 0.50 U	< 0.50 U
MW-68	MW-68-201410	10/14/2014	< 0.50 U	< 0.50 U	< 0.50 U
MW-68	MW-68-201501	1/12/2015	< 0.50 U	< 0.50 U	< 0.50 U
MW-68	MW-68-201504	4/13/2015	< 0.50 U	< 0.50 U	< 0.50 U
MW-68	MW-68-201507	7/20/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-68	MW-68-201510	10/6/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-68	MW-68-201601	1/12/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-68	MW-68-201605	5/2/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-68	MW-68-201611	11/7/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-70	MW-70-20101104	11/4/2010	540	14	< 5 U
MW-70	MW-70-20110322	3/22/2011	170	9.2	1.2 J
MW-70	MW-70-20111026	10/26/2011	320	7.7	< 5 U
MW-70	MW-70-20120418	4/18/2012	330	11	< 5 U
MW-70	MW-70-20121018	10/18/2012	200	11	< 0.11 U
MW-70	MW-70-20130423	4/23/2013	180	3.6 J	0.32 J
MW-70	MW-70-101613	10/16/2013	270	7.2	0.30 J
MW-71	MW-71-20091028	10/28/2009	190	6.3	< 5 U
MW-71	MW-71-20100513	5/13/2010	160	7.4	< 5 U
MW-71	MW-71-20101104	11/4/2010	250	7.2	< 5 U
MW-71	MW-71-20110322	3/22/2011	76	1.6 J	< 5 U
MW-71	MW-71-20111026	10/26/2011	130	2.7 J	< 5 U
MW-71	MW-71-20120418	4/18/2012	160	5.3	< 5 U
MW-71	MW-71-20121020	10/20/2012	210	7.3	< 0.11 U
MW-71	MW-71-20130423	4/23/2013	220	4.8 J	0.23 J
MW-71	MW-71-101613	10/16/2013	160	6.1	0.57 J
MW-71	MW-71-201403	3/7/2014	166	5.8	0.19 J
MW-71	MW-71-201405	5/13/2014	164	5.3	0.33 J
MW-71	MW-71-201407	7/29/2014	181	6.4	< 0.50 U
MW-71	MW-71-201410	10/14/2014	185	6.0	< 0.50 U
MW-71	MW-71-201501	1/14/2015	170	6.0	< 0.50 U
MW-71	MW-71-201504	4/14/2015	156	5.7	< 0.50 U
MW-71	MW-71-201507	7/20/2015	165	5.3	0.48 J
MW-71	MW-71-201510	10/6/2015	179	6.5	0.43 J
MW-71	MW-71-201601	1/11/2016	171	6.1	0.40 J
MW-71	MW-71-201605	5/3/2016	140	5.3	0.23 J
MW-81	MW-81-201405	5/29/2014	512	14.3	0.21 J
MW-81	20140708-GW-MW-81	7/9/2014	518	11.4	< 0.50 U
MW-81	MW-81-201409	9/11/2014	463	13.5	< 0.50 U
MW-81	MW-81-201501	1/13/2015	385	9.9	< 0.50 U
MW-81	MW-81-201504	4/15/2015	198	4.2	< 0.50 U
MW-81	MW-81-201507	7/22/2015	275	7.7	< 0.13 U

TABLE 7
HISTORICAL SUMMARY OF GROUNDWATER CONCENTRATIONS FOR TCE AND DAUGHTER-PRODUCTS
Whirlpool Facility - Fort Smith, Arkansas

Well ID	Sample Name	Date	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride
MW-81	MW-81-201510	10/8/2015	160	3.8	< 0.13 U
MW-81	MW-81-201511	11/5/2015	233	6.5	< 0.13 U
MW-81	MW-81-201512	12/2/2015	56.1	0.84 J	< 0.13 U
MW-81	MW-81-201601	1/11/2016	157	3.9	< 0.13 U
MW-81	MW-81-201605	5/4/2016	256	8.3	< 0.13 U
MW-82	MW-82-201405	5/28/2014	285	4.8 J	0.14 J
MW-82	20140708-GW-MW-82	7/9/2014	48.2	1.2 J	< 0.50 U
MW-82	MW-82-201409	9/11/2014	50.0	1.1 J	< 0.50 U
MW-82	MW-82-201501	1/13/2015	66.0	1.2	< 0.50 U
MW-82	MW-82-201504	4/15/2015	< 0.50 U	< 0.50 U	< 0.50 U
MW-82	MW-82-201507	7/22/2015	5.3	< 0.080 U	< 0.13 U
MW-82	MW-82-201510	10/6/2015	4.2	< 0.080 U	< 0.13 U
MW-82	MW-82-201601	1/11/2016	5.6	0.18 J	< 0.13 U
MW-82	MW-82-201605	5/4/2016	31.7	0.81 J	< 0.13 U
MW-82	MW-82-201611	11/9/2016	36.2	0.24 J	< 0.13 U
MW-83	MW-83-20140523	5/23/2014	470	8.3	< 0.13 U
MW-83	MW-83-201409	9/12/2014	213	4.9 J	< 0.50 U
MW-83	MW-83-20141023	10/23/2014	210	5.2	< 0.50 U
MW-83	MW-83-201501	1/15/2015	101	1.8	< 0.50 U
MW-83	MW-83-201504	4/16/2015	151	2.8	< 0.50 U
MW-83	MW-83-201507	7/22/2015	27.9	0.49 J	< 0.13 U
MW-83	MW-83-201510	10/8/2015	9.8	0.25 J	< 0.13 U
MW-83	MW-83-201511	11/5/2015	3.2	< 0.080 U	< 0.13 U
MW-83	MW-83-201512	12/2/2015	1.3	< 0.080 U	< 0.13 U
MW-83	MW-83-201601	1/7/2016	1.1	< 0.080 U	< 0.13 U
MW-83	MW-83-201605	5/4/2016	3.3	< 0.080 U	< 0.13 U
MW-83	MW-83-201611	11/9/2016	0.63 J	< 0.080 U	< 0.13 U
MW-84	MW-84-201405	5/27/2014	214	4.6 J	0.16 J
MW-84	MW-84-201409A	9/12/2014	0.93 J	< 0.50 U	< 0.50 U
MW-84	MW-84-20141023	10/23/2014	0.68 J	< 0.50 U	< 0.50 U
MW-84	MW-84-201501	1/14/2015	< 0.50 U	< 0.50 U	< 0.50 U
MW-84	MW-84-201504	4/16/2015	< 0.50 U	< 0.50 U	< 0.50 U
MW-84	MW-84-201507	7/23/2015	0.29 J	< 0.080 U	< 0.13 U
MW-84	MW-84-201510	10/7/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-84	MW-84-201601	1/7/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-84	MW-84-201605	5/5/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-84	MW-84-201611	11/9/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-85	MW-85-201405	5/29/2014	1970	99.4	23.1
MW-85	20140708-GW-MW-85	7/8/2014	3780	133	3.9
MW-85	MW-85-201409	9/11/2014	5820	226 J	35.3
MW-85	MW-85-20141205	12/5/2014	27700	280	7.7
MW-85	MW-85-201501	1/15/2015	5940	167	1.1
MW-85	MW-85-201504	4/16/2015	256	16.8	< 0.50 U
MW-85	MW-85-201507	7/23/2015	132	6.3	< 0.13 U
MW-85	MW-85-201510	10/8/2015	12000	52.6	1.8
MW-85	MW-85-201601	1/13/2016	6980	32.8	0.70 J
MW-85	MW-85-201605	5/5/2016	678	12.0	0.82 J
MW-86	MW-86-201405	5/29/2014	533000	1220 J	341 J
MW-86	MW-86-201409	9/11/2014	129000	91.6	4.1
MW-86	MW-86-20141205	12/5/2014	169000	290 E	24.7
MW-86	MW-86-201501	1/15/2015	81200	128	4.5
MW-86	MW-86-201504	4/16/2015	46700	128	5.8
MW-86	MW-86-201507	7/23/2015	65100	292 J	46.7
MW-86	MW-86-201510	10/8/2015	131000	1020	127
MW-86	MW-86-201601	1/13/2016	95500	610 J	57.1
MW-86	MW-86-201605	5/5/2016	64900	348 J	35.7
MW-86	MW-86-201611	11/9/2016	75100	< 80.0 U	65.4 J
MW-87	20140625-GW-MW-87	6/25/2014	564	41.8	< 0.50 U
MW-87	MW-87-201410	10/16/2014	594	47.8	< 0.50 U
MW-87	MW-87-201501	1/14/2015	661	51.3	< 0.50 U
MW-87	MW-87-201504	4/16/2015	758	58.6	0.33 J
MW-87	MW-87-201507	7/23/2015	758	56.5	0.34 J
MW-87	MW-87-201510	10/7/2015	708	54.5	0.31 J
MW-87	DUP-09-201601	1/13/2016	781	63.2	0.40 J
MW-87	MW-87-201601	1/13/2016	757	61.9	0.47 J
MW-87	MW-87-201605	5/5/2016	839	51.6	0.36 J
MW-87	DUP-05-201611	11/8/2016	948 J	49.0	0.39 J
MW-87	MW-87-201611	11/8/2016	701 J	51.9	0.25 J
MW-88	20140624-GW-MW-88	6/24/2014	< 0.50 U	< 0.50 U	< 0.50 U
MW-88	MW-88-201410	10/16/2014	< 0.50 U	< 0.50 U	< 0.50 U
MW-88	MW-88-201501	1/13/2015	< 0.50 U	< 0.50 U	< 0.50 U
MW-88	MW-88-201504	4/16/2015	0.58 J	< 0.50 U	< 0.50
MW-88	MW-88-201507	7/23/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-88	MW-88-201510	10/7/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-88	MW-88-201601	1/12/2016	0.58 J	< 0.080 U	< 0.13 U
MW-88	MW-88-201605	5/4/2016	0.25 J	< 0.080 U	< 0.13 U
MW-89	20140624-GW-MW-89	6/24/2014	19.5	< 0.50 U	< 0.50 U

TABLE 7
HISTORICAL SUMMARY OF GROUNDWATER CONCENTRATIONS FOR TCE AND DAUGHTER-PRODUCTS
Whirlpool Facility - Fort Smith, Arkansas

Well ID	Sample Name	Date	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride
MW-89	MW-89-201410	10/15/2014	11.3	< 0.50 U	< 0.50 U
MW-89	MW-89-201501	1/13/2015	11.4	< 0.50 U	< 0.50 U
MW-89	MW-89-201504	4/16/2015	15.9	< 0.50 U	< 0.50
MW-89	MW-89-201507	7/23/2015	14.5	0.18 J	< 0.13 U
MW-89	MW-89-201510	10/7/2015	12.7	0.24 J	< 0.13 U
MW-89	MW-89-201601	1/12/2016	11.6	0.20 J	< 0.13 U
MW-89	MW-89-201605	5/3/2016	14.0	0.30 J	< 0.13 U
MW-89	MW-89-201611	11/8/2016	13.4	< 0.080 U	< 0.13 U
MW-90	20140625-GW-MW-90	6/25/2014	< 0.50 U	< 0.50 U	< 0.50 U
MW-90	MW-90-201410	10/16/2014	< 0.50 U	< 0.50 U	< 0.50 U
MW-90	MW-90-201501	1/12/2015	< 0.50 U	< 0.50 U	< 0.50 U
MW-90	MW-90-201504	4/15/2015	< 0.50 U	< 0.50 U	< 0.50
MW-90	MW-90-201507	7/22/2015	0.38 J	< 0.080 U	< 0.13 U
MW-90	MW-90-201510	10/7/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-90	MW-90-201601	1/12/2016	0.25 J	< 0.080 U	< 0.13 U
MW-90	MW-90-201605	5/4/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-91	20140625-GW-MW-91	6/25/2014	234	21.7	< 0.50 U
MW-91	MW-91-201410	10/16/2014	319	28.8	< 0.50 U
MW-91	DUP-07-201501	1/13/2015	317	31.0	< 0.50 U
MW-91	MW-91-201501	1/13/2015	354	31.5	< 0.50 U
MW-91	MW-91-201504	4/16/2015	438	36.6	0.18 J
MW-91	MW-91-201507	7/23/2015	411	34.8	0.23 J
MW-91	DUP-08-201510	10/7/2015	442	35.7	0.19 J
MW-91	MW-91-201510	10/7/2015	405	35.2	0.17 J
MW-91	DUP-08-201601	1/13/2016	422	38.6	0.24 J
MW-91	MW-91-201601	1/13/2016	413	36.1	0.24 J
MW-91	DUP-02-201605	5/4/2016	459	33.4	0.26 J
MW-91	MW-91-201605	5/4/2016	530	37.8	0.23 J
MW-91	DUP-03-201611	11/10/2016	599	40.6	0.38 J
MW-91	MW-91-201611	11/10/2016	574	41.6	0.36 J
MW-92	MW-92-20141022	10/22/2014	2160	16.0	7.2
MW-92	MW-92-20141204	12/4/2014	2200	23.4	10.3
MW-92	MW-92-201501	1/15/2015	1410	10.4	4.6
MW-92	MW-92-201504	4/16/2015	736	5.4	2.1
MW-92	MW-92-201507	7/23/2015	617	6.7	1.0
MW-92	MW-92-201510	10/8/2015	1400	10.8	1.4
MW-92	MW-92-201601	1/13/2016	1840	7.1	0.66 J
MW-92	DUP-08-201605	5/4/2016	1840	25.7	1.7
MW-92	MW-92-201605	5/4/2016	2210	25.5	1.8
MW-93	MW-93-20141022	10/22/2014	18200	145	5.0
MW-93	MW-93-20141204	12/4/2014	14600	85.7	2.5
MW-93	MW-93-201501	1/15/2015	18000	131	3.4
MW-93	MW-93-201504	4/16/2015	21500	160	3.9
MW-93	MW-93-201507	7/23/2015	20800	164	3.4
MW-93	MW-93-201510	10/8/2015	21100	120	3.3
MW-93	MW-93-201601	1/13/2016	21200	103	2.6
MW-93	MW-93-201605	5/5/2016	17300	127	7.6
MW-93	MW-93-201611	11/9/2016	18300	98.8	0.93 J
MW-94	MW-94-20141022	10/22/2014	11100	309 J	2.5
MW-94	MW-94-20141204	12/4/2014	9570	250 J	3.0
MW-94	MW-94-201501	1/15/2015	9530	297	2.4
MW-94	MW-94-201504	4/16/2015	11800	325	1.3
MW-94	MW-94-201507	7/23/2015	3890	119	0.61 J
MW-94	MW-94-201510	10/8/2015	1990	59.5	0.25 J
MW-94	MW-94-201601	1/13/2016	936	30.3	< 0.13 U
MW-94	MW-94-201605	5/5/2016	424	15.6	< 0.13 U
MW-95	MW-95-20141022	10/22/2014	22300	151	25.7
MW-95	MW-95-20141204	12/4/2014	20900	159	29.9
MW-95	MW-95-201501	1/15/2015	21100	177	25.6
MW-95	MW-95-201504	4/16/2015	26700	184	14.9
MW-95	MW-95-201507	7/23/2015	25200	181	17.1
MW-95	MW-95-201510	10/8/2015	26300	161	32.0
MW-95	MW-95-201601	1/13/2016	24700	161	31.0
MW-95	MW-95-201605	5/5/2016	21600	164	14.8
MW-95	MW-95-201611	11/9/2016	28700	191	46.9 J
MW-96	MW-96-20141022	10/22/2014	< 0.50 U	< 0.50 U	< 0.50 U
MW-96	MW-96-201501	1/15/2015	0.59 J	< 0.50 U	< 0.50 U
MW-96	DUP-06-201504	4/16/2015	< 0.50 U	< 0.50 U	< 0.50
MW-96	MW-96-201504	4/16/2015	< 0.50 U	< 0.50 U	< 0.50
MW-96	DUP-06-201507	7/23/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-96	MW-96-201507	7/23/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-96	MW-96-201510	10/7/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-96	MW-96-201601	1/12/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-96	MW-96-201605	5/3/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-96	MW-96-201611	11/8/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-97	MW-97-20141022	10/22/2014	< 0.50 U	< 0.50 U	< 0.50 U
MW-97	MW-97-201501	1/15/2015	< 0.50 U	< 0.50 U	< 0.50 U

TABLE 7
HISTORICAL SUMMARY OF GROUNDWATER CONCENTRATIONS FOR TCE AND DAUGHTER-PRODUCTS
Whirlpool Facility - Fort Smith, Arkansas

Well ID	Sample Name	Date	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride
MW-97	**MW-97-201504**	**42110.337**	**< 0.50**	**< 0.50**	**< 0.50**
MW-97	MW-97-201507	7/23/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-97	MW-97-201510	10/7/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-97	MW-97-201601	1/12/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-97	MW-97-201605	5/5/2016	< 0.17 U	0.28 J	< 0.13 U
MW-97	MW-97-201611	11/8/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-98	MW-98-GW-2014 1029	10/29/2014	< 0.50 U	< 0.50 U	< 0.50 U
MW-98	MW-98-201501	1/15/2015	< 0.50 U	< 0.50 U	< 0.50 U
MW-98	MW-98-201504	4/16/2015	< 0.50 U	< 0.50 U	< 0.50
MW-98	MW-98-201507	7/23/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-98	MW-98-201510	10/6/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-98	MW-98-201601	1/11/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-98	MW-98-201605	5/3/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-98	MW-98-201611	11/8/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-99	MW-99-20141022	10/22/2014	< 0.50 U	< 0.50 U	< 0.50 U
MW-99	MW-99-201501	1/15/2015	< 0.50 U	< 0.50 U	< 0.50 U
MW-99	MW-99-201504	4/16/2015	< 0.50 U	< 0.50 U	< 0.50
MW-99	MW-99-201507	7/23/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-99	MW-99-201510	10/6/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-99	MW-99-201601	1/11/2016	0.21 J	< 0.080 U	< 0.13 U
MW-99	MW-99-201605	5/3/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-172	MW-172-20141022	10/22/2014	3010	21.4	2.4
MW-172	MW-172-20141205	12/5/2014	1810	15.6	1.3 J
MW-172	MW-172-201501	1/15/2015	3600	22.4	1.2
MW-172	MW-172-201504	4/16/2015	1740	11.9	0.92 J
MW-172	MW-172-201507	7/23/2015	2140	12.4	0.69 J
MW-172	MW-172-201510	10/8/2015	2110	12.4	0.51 J
MW-172	MW-172-201601	1/13/2016	3190	13.5	< 0.13 U
MW-172	MW-172-201605	5/5/2016	2160	13.3	< 0.13 U
MW-173	MW-173-201504	4/15/2015	< 0.50 U	< 0.50 U	< 0.50
MW-173	MW-173-201507	7/22/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-173	MW-173-201510	10/6/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-173	MW-173-201601	1/12/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-173	MW-173-201605	5/4/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-174	MW-174-GW-20150120	1/20/2015	< 0.50 U	< 0.50 U	< 0.50 U
MW-174	MW-174-201504	4/14/2015	0.68 J	< 0.50 U	< 0.50
MW-174	MW-174-201507	7/21/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-174	MW-174-201510	10/6/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-174	MW-174-201601	1/12/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-174	MW-174-201605	5/4/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-175	MW-175-GW-20150120	1/20/2015	123	2.0	< 0.50 U
MW-175	MW-175-201504	4/15/2015	98.8	1.5	< 0.50
MW-175	MW-175-201507	7/21/2015	20.3	0.32 J	< 0.13 U
MW-175	MW-175-201510	10/7/2015	78.6	1.6	0.19 J
MW-175	MW-175-201601	1/11/2016	52.6	1.1	< 0.13 U
MW-175	MW-175-201605	5/3/2016	54.9	1.2	< 0.13 U
MW-175	MW-175-201611	11/8/2016	50.9	0.49 J	< 0.13 U
MW-176	MW-176-GW-20150120	1/20/2015	720	16.8	0.57 J
MW-176	MW-176-201504	4/14/2015	528	16.7	0.69 J
MW-176	MW-176-201507	7/21/2015	575	21.5	0.79 J
MW-176	MW-176-201510	10/6/2015	420	111	1.2
MW-176	MW-176-201601	1/12/2016	306	125	1.3
MW-176	MW-176-201605	5/3/2016	389	93.7	0.45 J
MW-176	MW-176-201611	11/8/2016	320	202	1.6
MW-177	MW-177-GW-20150121	1/21/2015	< 0.50 U	< 0.50 U	< 0.50 U
MW-177	MW-177-201504	4/14/2015	< 0.50 U	< 0.50 U	< 0.50 U
MW-177	MW-177-201510	10/6/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-177	MW-177-201601	1/11/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-177	MW-177-201605	5/2/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-178	MW-178-GW-20150118	1/18/2015	5.2	0.99 J	< 0.50 U
MW-178	MW-178-201504	4/16/2015	5.0	1.3	< 0.50 U
MW-178	MW-178-201507	7/22/2015	4.6	1.1	< 0.13 U
MW-178	MW-178-201510	10/7/2015	5.8	1.4	< 0.13 U
MW-178	MW-178-201611	11/10/2016	3.2	0.15 J	< 0.13 U
MW-179	MW-179-201504	4/16/2015	41.2	1.6	< 0.50
MW-179	MW-179-201507	7/22/2015	27.3	1.1	< 0.13 U
MW-179	MW-179-201601	1/13/2016	30.6	1.1	< 0.13 U
MW-179	MW-179-201605	5/4/2016	6.6	< 0.080 U	< 0.13 U
MW-180	MW-180-GW-20150119	1/19/2015	23.7	3.4	< 0.50 U
MW-180	MW-180-201504	4/16/2015	21.4	3.8	< 0.50
MW-180	MW-180-201507	7/22/2015	22.1	3.0	< 0.13 U
MW-180	MW-180-201510	10/7/2015	18.5	3.0	< 0.13 U
MW-180	MW-180-201601	1/14/2016	10.6	1.5	< 0.13 U
MW-180	MW-180-201605	5/5/2016	10.3	1.4	< 0.13 U
MW-181	MW-181-GW-20150121	1/21/2015	< 0.50 U	< 0.50 U	< 0.50 U
MW-181	MW-181-201504	4/14/2015	< 0.50 U	< 0.50 U	< 0.50 U

TABLE 7
HISTORICAL SUMMARY OF GROUNDWATER CONCENTRATIONS FOR TCE AND DAUGHTER-PRODUCTS
Whirlpool Facility - Fort Smith, Arkansas

Well ID	Sample Name	Date	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride
MW-181	MW-181-201507	7/21/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-181	MW-181-201601	1/11/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-181	MW-181-201605	5/4/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-182	MW-182-201507	7/23/2015	193	17.8	0.28 J
MW-182	MW-182-201510	10/5/2015	196	17.2	0.25 J
MW-182	MW-182-201601	1/13/2016	258	19.9	0.30 J
MW-182	DUP-09-201605	5/4/2016	271	16.6	0.32 J
MW-182	MW-182-201605	5/4/2016	283	18.9	0.31 J
MW-182	DUP-02-201611	11/9/2016	204	15.5	0.20 J
MW-182	MW-182-201611	11/9/2016	192	14.6	0.28 J
MW-183	MW-183-201510	10/6/2015	2.0	0.30 J	< 0.13 U
MW-183	MW-183-201601	1/12/2016	2.7	0.32 J	< 0.13 U
MW-183	MW-183-201605	5/4/2016	2.8	0.34 J	< 0.13 U
MW-183	MW-183-201611	11/9/2016	5.3	< 0.080 U	< 0.13 U
MW-184	MW-184-201510	10/5/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-184	MW-184-201601	1/11/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-184	MW-184-201605	5/3/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-184	MW-184-201611	11/8/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-185	MW-185-GW-091615	9/16/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-185	MW-185-201510	10/5/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-185	MW-185-201601	1/11/2016	0.87 J	< 0.080 U	< 0.13 U
MW-185	MW-185-201605	5/4/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-185	MW-185-201611	11/8/2016	3.1	< 0.080 U	< 0.13 U
MW-186	MW-186-GW-091415	9/14/2015	< 0.17 U	0.37 J	< 0.13 U
MW-186	MW-186-201510	10/5/2015	1.2	2.4	< 0.13 U
MW-186	MW-186-201601	1/7/2016	3.0	3.2	< 0.13 U
MW-186	MW-186-201605	5/4/2016	4.0	3.0	< 0.13 U
MW-186	MW-186-201611	11/7/2016	5.2	3.3	0.16 J
MW-187	MW-187-GW-091415	9/14/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-187	MW-187-201510	10/5/2015	< 0.17 U	0.21 J	< 0.13 U
MW-187	MW-187-201601	1/8/2016	0.22 J	0.27 J	< 0.13 U
MW-187	MW-187-201605	5/4/2016	0.56 J	0.59 J	< 0.13 U
MW-187	MW-187-201611	11/9/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-188	MW-188A-GW-091715	9/17/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-188	MW-188-201510	10/5/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-188	MW-188-201601	1/8/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-188	MW-188-201605	5/3/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-188	MW-188-201611	11/9/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-189	MW-189A-GW-091715	9/17/2015	2.4	3.1	< 0.13 U
MW-189	MW-189-201510	10/5/2015	4.1	4.5	0.14 J
MW-189	MW-189-201601	1/7/2016	4.5	5.4	0.19 J
MW-189	MW-189-201605	5/4/2016	5.5	6.1	0.19 J
MW-189	MW-189-201611	11/7/2016	10.2	9.7	0.31 J
MW-190	MW-190-GW-091415	9/14/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-190	MW-190-201510	10/5/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-190	MW-190-201601	1/11/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-190	MW-190-201605	5/4/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-190	MW-190-201611	11/8/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-191	MW-191-GW-091515	9/15/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-191	MW-191-201510	10/5/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-191	MW-191-201601	1/11/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-191	MW-191-201605	5/4/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-191	MW-191-201611	11/8/2016	< 0.17 U	< 0.080 U	< 0.13
MW-192	MW-192-GW-091615	9/16/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-192	MW-192-201510	10/5/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-192	MW-192-201601	1/11/2016	0.30 J	< 0.080 U	< 0.13 U
MW-192	MW-192-201605	5/4/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-192	MW-192-201611	11/9/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-193	MW-193-201510	10/6/2015	< 0.17 U	< 0.080 U	< 0.13 U
MW-193	MW-193-201601	1/11/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-193	MW-193-201605	5/2/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-194	MW-194-GW-080516	8/5/2016	6.6	0.66 J	< 0.13 U
MW-194	MW-194-201611	11/7/2016	12.7	< 0.080 U	< 0.13 U
MW-195	MW-195-GW-080516	8/5/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-195	MW-195-201611	11/9/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-196	MW-196-GW-080516	8/5/2016	< 0.17 U	< 0.080 U	< 0.13 U
MW-196	MW-196-201611	11/9/2016	< 0.17 U	< 0.080 U	< 0.13 U
RW-69	RW-69-20090115	1/15/2009	170	7.1	< 5 U
RW-69	RW-69-20090424	4/24/2009	62	< 5 U	< 5 U
RW-69	RW-69-20090527	5/27/2009	290	10	< 5 U
RW-69	RW-69-20091221-FS	12/21/2009	200	6.3	< 1.6 U
RW-69	RW-69-20100513	5/13/2010	170	8.2	< 5 U
RW-69	RW-69-20101104	11/4/2010	320	9	< 5 U
RW-69	RW-69-20110303-FS	3/3/2011	200	7.1	< 0.85 U
RW-69	RW-69-20110523-FS	5/23/2011	130	3.0 J	
RW-69	RW-69-20111026	10/26/2011	210	5.7	< 5 U

TABLE 7
HISTORICAL SUMMARY OF GROUNDWATER CONCENTRATIONS FOR TCE AND DAUGHTER-PRODUCTS
Whirlpool Facility - Fort Smith, Arkansas

Well ID	Sample Name	Date	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride
RW-69	RW-69-20120418	4/18/2012	150	3.6 J	< 5 U
RW-69	RW-69-20121018	10/18/2012	180	5.0	< 0.11 U
RW-69	RW-69-20130423	4/23/2013	190	2.8 J	< 0.11 U
RW-69	RW-69-101613	10/16/2013	190	7.7	< 0.11 U
RW-69	RW-69-201403	3/7/2014	105	3.5 J	0.41 J
RW-69	RW-69-201405	5/13/2014	110	3.3 J	0.30 J
RW-69	RW-69-201407	7/29/2014	164	5.6	0.50 J
RW-69	RW-69-201410	10/14/2014	173	6.9	< 0.50 U
RW-69	RW-69-201501	1/14/2015	115	4.7	< 0.50 U
RW-69	RW-69-201504	4/14/2015	113	4.5	< 0.50 U
RW-69	RW-69-201507	7/21/2015	135	5.5	0.31 J
RW-69	RW-69-201510	10/6/2015	184	6.7	0.24 J
RW-69	RW-69-201601	1/12/2016	128	4.6	< 0.13 U
RW-69	RW-69-201605	5/3/2016	91.1	4.1	< 0.13 U
RW-69	RW-69-201611	11/9/2016	185	6.2	0.26 J
TMW-01	TMW-01-062613-GW	6/26/2013	< 1.6 U	< 0.56 U	
TMW-01	TMW-01-062613-LL	6/26/2013			< 0.11 U
TMW-02	TMW-02-062613-GW	6/26/2013	< 1.6 U	< 0.56 U	
TMW-02	TMW-02-062613-LL	6/26/2013			< 0.11 U
TMW-04	TMW-04-062613-GW	6/26/2013	< 1.6 U	< 0.56 U	
TMW-04	TMW-04-062613-LL	6/26/2013			< 0.11 U
TMW-05	TMW-05-062613-GW	6/26/2013	< 1.6 U	< 0.56 U	
TMW-05	TMW-05-062613-LL	6/26/2013			< 0.11 U
TMW-10	TMW-10-GW-091815	9/18/2015	190	1.9	< 0.13 U
TMW-10	TMW-10-201510	10/8/2015	102	1.1	< 0.13 U
TMW-10	TMW-10-201511	11/4/2015	120	0.72 J	< 0.13 U
TMW-10	TMW-10-201512	12/1/2015	114	0.88 J	< 0.13 U
TMW-10	TMW-10-201601	1/8/2016	103	3.1	< 0.13 U
TMW-10	TMW-10-201605	5/4/2016	123	12.9	< 0.13 U
TMW-10	TMW-10-201611	11/8/2016	95.4	4.4	< 0.13 U
TMW-11	TMW-11-GW-091815	9/18/2015	31.1	0.15 J	< 0.13 U
TMW-11	TMW-11-201510	10/8/2015	14.3	< 0.080 U	< 0.13 U
TMW-11	TMW-11-201511	11/4/2015	6.3	2.5	< 0.13 U
TMW-11	TMW-11-201512	12/1/2015	0.63 J	5.8	< 0.13 U
TMW-11	TMW-11-201601	1/8/2016	3.1	5.3	< 0.13 U
TMW-11	TMW-11-201605	5/3/2016	8.1	3.6	< 0.13 U
TMW-11	TMW-11-201611	11/8/2016	1.2	4.7	< 0.13 U
TMW-188	MW-188-GW-091415	9/14/2015	2.0 J	2.4 J	< 0.65 U
TMW-189	MW-189-GW-091515	9/15/2015	2.6	4.7	0.22 J

Notes:
E,J - Estimated Concentration
ND - Result is not detected at the associated method quantitation limit
NT - Analyte not tested
U - Not Detected (MDL included where available, RDL included for older analyses)
M1 - Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

TABLE 8
SUMMARY OF STATISTICAL TEMPORAL TREND ANALYSIS (2009 - 2016)
Whirlpool Facility - Fort Smith, Arkansas

Well ID	Start Date	End Date	Number of Samples	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride
Northern Plume Wells						
MW-24	4/27/2009	11/8/2016	19	Decreasing	Decreasing	<PQL
MW-27	5/12/2010	11/9/2016	18	No Trend	<PQL	ND
MW-28	10/29/2009	11/9/2016	20	Decreasing	ND	ND
MW-39	4/24/2009	11/7/2016	19	No Trend	ND	ND
MW-40	4/24/2009	11/7/2016	22	<PQL	<PQL	ND
MW-46R	4/25/2009	11/8/2016	25	Stable	Stable	<PQL
MW-50	4/24/2009	11/7/2016	19	<PQL	ND	ND
MW-55	4/24/2009	11/7/2016	13	Stable	<PQL	<PQL
MW-56	4/24/2009	11/8/2016	18	Increasing	Increasing	<PQL
MW-57	4/24/2009	11/8/2016	18	Increasing	Increasing	<PQL
MW-58	4/25/2009	12/14/2016	20	Decreasing	Stable	Stable
MW-60	4/24/2009	11/8/2016	19	<PQL	ND	ND
MW-61	4/24/2009	11/7/2016	19	Increasing	Increasing	ND
MW-62	4/24/2009	11/7/2016	18	<PQL	ND	ND
MW-63	4/24/2009	11/7/2016	19	Decreasing	Increasing	<PQL
MW-68	1/15/2009	11/7/2016	19	No Trend	ND	ND
RW-69	1/15/2009	11/9/2016	24	Decreasing	Stable	<PQL
IW-73	4/23/2009	11/9/2016	18	Decreasing	No Trend	No Trend
IW-77	4/23/2009	11/8/2016	27	Stable	Decreasing	<PQL
IW-78	10/25/2011	11/8/2016	10	Decreasing	Decreasing	ND
MW-82	5/28/2014	11/9/2016	10	No Trend	Decreasing	<PQL
MW-83	5/23/2014	11/9/2016	10	Decreasing	Decreasing	ND
MW-84	5/27/2014	11/9/2016	10	Decreasing	Decreasing	<PQL
Southern Plume Wells (includes Source Area Wells as indicated by bold font well ID)						
ITMW-1	10/27/2011	11/10/2016	16	Decreasing	Decreasing	ND
ITMW-2	11/3/2010	11/9/2016	18	<PQL	<PQL	ND
ITMW-5	4/27/2009	11/10/2016	11	Stable	Decreasing	<PQL
ITMW-7	4/27/2009	11/10/2016	20	Decreasing	Decreasing	Increasing
ITMW-9	4/27/2009	12/14/2016	20	Stable	Decreasing	No Trend
ITMW-10	4/27/2009	11/10/2016	18	Increasing	Decreasing	Decreasing
ITMW-16	11/6/2010	11/9/2016	17	Decreasing	ND	ND
ITMW-18	4/27/2009	11/9/2016	21	Decreasing	Decreasing	<PQL
ITMW-19	4/27/2009	11/9/2016	21	Decreasing	Decreasing	<PQL
ITMW-20	10/29/2009	11/9/2016	19	No Trend	ND	<PQL
ITMW-21	10/27/2009	11/9/2016	19	Decreasing	<PQL	ND
MW-22	10/27/2009	11/8/2016	18	<PQL	ND	ND
MW-24	4/27/2009	11/8/2016	19	Decreasing	Decreasing	<PQL
MW-25	4/27/2009	11/9/2016	22	Decreasing	Decreasing	Decreasing
MW-26	10/29/2009	11/9/2016	19	No Trend	ND	ND
MW-29	10/29/2009	11/9/2016	17	<PQL	ND	ND
MW-38	10/26/2011	11/10/2016	15	Increasing	Increasing	Decreasing
MW-86	5/29/2014	11/9/2016	10	Decreasing	Stable	No Trend
MW-93	10/22/2014	11/9/2016	9	Stable	Stable	Stable
MW-95	10/22/2014	11/9/2016	9	Stable	Increasing	Stable
MW-182	7/23/2015	11/9/2016	5	Stable	Stable	<PQL
MW-185	10/5/2015	11/8/2016	4	Stable	ND	ND
MW-186	10/5/2015	11/7/2016	4	Increasing	Stable	<PQL
MW-187	10/5/2015	11/9/2016	4	<PQL	<PQL	ND
MW-188	10/5/2015	11/9/2016	4	ND	ND	ND
MW-189	10/5/2015	11/7/2016	4	Increasing	Increasing	<PQL
MW-190	10/5/2015	11/8/2016	4	ND	ND	ND
MW-191	10/5/2015	11/8/2016	4	ND	ND	Stable
MW-192	10/5/2015	11/9/2016	4	<PQL	ND	ND
Northeast Corner Wells						
MW-87	6/25/2014	11/8/2016	9	Increasing	Stable	<PQL
MW-89	6/24/2014	11/8/2016	9	Stable	<PQL	ND
MW-91	6/25/2014	11/10/2016	9	Increasing	Increasing	<PQL
MW-96	10/22/2014	11/8/2016	8	<PQL	ND	ND
MW-97	10/22/2014	11/8/2016	8	ND	<PQL	ND
MW-98	10/29/2014	11/8/2016	8	ND	ND	ND
MW-99	10/22/2014	5/3/2016	7	<PQL	ND	ND
MW-183	7/23/2015	11/9/2016	5	Increasing	<PQL	ND
MW-184	10/5/2015	11/8/2016	4	ND	ND	ND

Notes:
ND = Result is Not Detected at the associated method quantitation limit
<PQL = Analyte qualified as estimated because it was detected
Bolded text = source well

TABLE 9
SUMMARY OF TCE CONCENTRATIONS (AREA 1)
(September 2014 - November 2016)
Whirlpool Facility - Fort Smith, Arkansas

	TCE Concentrations (µg/L)												
Date(s)	**IW-127**	**IW-141**	**IW-147**	**IW-152**	**IW-153**	**IW-157**	**MW-25**	**MW-38**	**MW-85**	**MW-86**	**MW-92**	**MW-93**	
9/11/2014	1020	nm	nm	nm	nm	nm	nm	nm	5820	129000	nm	nm	
10/15/2014	nm	nm	nm	nm	nm	nm	nm	6750	nm	nm	nm	nm	
10/23/2014	nm	368000	199000	17600	293	74200	59800	nm	nm	nm	2160	18200	
12/4/2014	182	46300	91600	5	1.6	31700	2620	3190	27700	169000	2200	14600	
1/15/2015	nm	nm	nm	nm	nm	nm	2510	5440	5940	81200	1410	18000	
4/15-16/2015	nm	nm	nm	nm	nm	nm	4650	3060	256	46700	736	21500	
7/20/2015	nm	nm	nm	nm	nm	nm	39800	3420	132	65100	617	20800	
10/8/2015	nm	nm	nm	nm	nm	nm	68700	2740	12000	131000	1400	21100	
1/13/2016	nm	nm	nm	nm	nm	nm	43400	3680	6980	95500	1840	21200	
5/5/2016	nm	nm	nm	nm	nm	nm	53000	3040	678	64900	2210	17300	
11/8-9/2016	nm	nm	nm	nm	nm	nm	36900	2860	nm	75100	nm	18300	
Percent Reduction	82%	87%	54%	100%	99%	57%	96%	53%	-376%	-31%	-2%	20%	**4th Quarter 2014**
	-	-	-	-	-	-	96%	19%	-2%	37%	35%	1%	**1st Quarter 2015**
	-	-	-	-	-	-	92%	55%	96%	64%	66%	-18%	**2nd Quarter 2015**
	-	-	-	-	-	-	33%	49%	98%	50%	71%	-14%	**3rd Quarter 2015**
	-	-	-	-	-	-	-15%	59%	-106%	-2%	35%	-16%	**4th Quarter 2015**
	-	-	-	-	-	-	27%	45%	-20%	26%	15%	-16%	**1st Quarter 2016**
	-	-	-	-	-	-	11%	55%	88%	50%	-2%	5%	**2nd Quarter 2016**
	-	-	-	-	-	-	38%	58%	-	42%	-	-1%	**Annual Event 2016**

Notes:
TCE = Trichloroethylene
nd = Not detected
nm = Not measured
µg/L = Micrograms per liter
U = Not detected above noted method detection limit

TABLE 9
SUMMARY OF TCE CONCENTRATIONS (AREA 1)
(September 2014 - November 2016)
Whirlpool Facility - Fort Smith, Arkansas

	TCE Concentrations (µg/L)										
Date(s)	**MW-94**	**MW-95**	**MW-172**	**ITMW-11**	**ITMW-12**	**ITMW-15**	**ITMW-17**	**ITMW-18**	**ITMW-19**	**Total TCE Reduction (all wells)**	
9/11/2014	nm	nm	nm	nm	nm	nm	nm	nm	nm	944213	
10/15/2014	nm	nm	nm	2050	2570	1490	3510	3540	12800		
10/23/2014	11100	22300	3010	nm	nm	nm	nm	nm	nm		
12/4/2014	9570	20900	1810	1530	468	63	4630	3690	33.5	431793	
1/15/2015	9530	21100	3600	68.3	57.1	56.5	3840	488	17.4	323046	
4/15-16/2015	11800	26700	1740	0.5 U	2260	101	3920	43.5	594	293849	
7/20/2015	3890	25200	2140	33.2	652	110	5350	22.9	15.2	337071	
10/7/2015-10/8/2015	1990	26300	2110	721	314	38.9	3970	12.9	87.1	442273	
1/13/2016	936	24700	3190	2100	465	797	2600	48.8	336	377562	
5/5/2016	424	21600	2160	4630	675	659	2720	13.9	105	343904	
11/8-10/2016	nm	28700	nm	nm	nm	nm	nm	10.1	137	345952	
Percent Reduction	14%	6%	40%	25%	82%	96%	-32%	-4%	100%	54%	**4th Quarter 2014**
	14%	5%	-20%	97%	98%	96%	-9%	86%	100%	66%	**1st Quarter 2015**
	-6%	-20%	42%	100%	12%	93%	-12%	99%	95%	69%	**2nd Quarter 2015**
	65%	-13%	29%	98%	75%	93%	-52%	99%	100%	64%	**3rd Quarter 2015**
	82%	-18%	30%	65%	88%	97%	-13%	100%	99%	53%	**4th Quarter 2015**
	92%	-11%	-6%	-2%	82%	47%	26%	99%	97%	60%	**1st Quarter 2016**
	96%	3%	28%	-126%	74%	56%	23%	100%	99%	64%	**2nd Quarter 2016**
	-	-29%	-	-	-	-	-	100%	99%	63%	**Annual Event 2016**

Notes:
TCE = Trichloroethylene
nd = Not detected
nm = Not measured
µg/L = Micrograms per liter
U = Not detected above noted method detection limit

TABLE 10
SUMMARY OF TCE CONCENTRATIONS (MW-25, MW-85 and MW-86)
(May 2014 - November 2016)
Whirlpool Facility - Fort Smith, Arkansas

	TCE Concentrations (µg/L)				
Date(s)	**MW-25**	**MW-85**	**MW-86**	**Total TCE Reduction (all wells)**	
5/15 & 29/2014	18500	1970	533000	553470	
7/8/2014	49900	3780	nm	-	
7/31/2014	71700	nm	nm	-	
9/11/2014	nm	5820	129000	-	
10/24/2014	59800	nm	nm	-	
12/5/2014	2620	27700	169000	199320	
1/15/2015	2510	5940	81200	89650	
4/16/2015	4650	256	46700	51606	
7/20/2015	39800	132	65100	105032	
10/8/2015	68700	12000	131000	211700	
1/13/2016	43400	6980	95500	145880	
5/5/2016	53000	678	64900	118578	
11/9/2016	36900	nm	75100	112678	
Percent Reduction	86%	-1306%	68%	64%	**4th Quarter 2014**
	86%	-202%	85%	84%	**1st Quarter 2015**
	75%	87%	91%	91%	**2nd Quarter 2015**
	-115%	93%	88%	81%	**3rd Quarter 2015**
	-271%	-509%	75%	62%	**4th Quarter 2015**
	-135%	-254%	82%	74%	**1st Quarter 2016**
	-186%	66%	88%	79%	**2nd Quarter 2016**
	-99%	-	86%	80%	**Annual Event 2016**

Notes:
TCE = Trichloroethylene
nm = Not measured
µg/L = Micrograms per liter

RAMBOLL ENVIRON

TABLE 11
SUMMARY OF TCE CONCENTRATIONS (SUPPLEMENTAL NECK AREA)
(May 2014 - November 2016)
Whirlpool Facility - Fort Smith, Arkansas

	TCE Concentrations (µg/L)						
Date(s)	**IW-101**	**MW-23**	**MW-24**	**MW-83**	**MW-84**	**Total TCE Reduction (all wells)**	
5/22 & 23/2014	509	22.8	79.7	470	214	1296	
7/8/2014	150	27.8	102	nm	nm	-	
9/12/2014	139	62.1	55.7	213	0.93	572	
10/23/2014	nm	189	33.1	210	0.68		
1/14-15/2015	nm	115	26.9	101	0.5 U	382	
4/14-16/2015	nm	57.5	18.8	151	0.5 U	367	
7/20/2015	nm	37.8	178	27.9	0.29 J	383	
10/7-8/2015	nm	0.65 J	44.1	9.8	0.17 U	194	
12/1-2/2015	nm	0.17 J	84.1	1.3	nm	225	
1/7/2016	42.9	0.48 J	49.3	1.1	0.17 U	94	
5/4-5/2016	20.3	0.90 J	23.8 J	3.3	0.17 U	48	
11/9/2016	nm	nm	4.2	.63 J	0.17 U	26	
Percent Reduction	73%	-729%	58%	55%	100%	56%	**4th Quarter 2014**
	-	-404%	66%	79%	100%	70%	**1st Quarter 2015**
	-	-152%	76%	68%	100%	72%	**2nd Quarter 2015**
	-	-66%	-123%	94%	100%	70%	**3rd Quarter 2015**
	-	99%	-6%	100%	100%	83%	**4th Quarter 2015**
	92%	98%	38%	100%	100%	93%	**1st Quarter 2016**
	96%	98%	70%	99%	100%	96%	**2nd Quarter 2016**
	-	-	95%	100%	100%	98%	**Annual Event 2016**

Notes:
TCE = Trichloroethylene
nm = Not measured
µg/L = Micrograms per liter
U = Not detected above noted method detection limit

RAMBOLL ENVIRON

TABLE 12
SUMMARY OF TCE CONCENTRATIONS (AREAS 2 AND 3)
(May 2014 through November 2016)
Whirlpool Facility - Fort Smith, Arkansas

	TCE Concentrations (µg/L)												
Date(s)	**IW-115**	**MW-81**	**MW-82**	**IW-77**	**IW-78**	**IW-79**	**MW-34**	**MW-35R**	**MW-36**	**MW-65**	**IW-80**	**Total TCE Reduction (all wells)**	
5/13-14 & 5/28-30/2014	504	512	285	1460	255	426	19.9	183	0.5 U	195	24.2	3865	
7/29-30/2014	nm	nm	nm	1540	nm	nm	78.2	64.7	0.61	17.1	25.6	3708	
9/11 & 10/14-23/2014	355	463	50	554	39.6	105	47.7	79.2	0.5 U	30.8	11.8	1737	
1/12-14/2015	nm	385	66	201	nm	nm	22	10.9	0.5 U	19.2	7.1	1211	
4/14-15/2015	nm	198	0.5 U	153	nm	nm	13.8	39.5	0.5 U	16	9.2	930	
7/20/2015	nm	275	5.3	130	nm	nm	3.5	33.7	0.22 J	26.3	12.5	986	
10/6-8/2015	nm	160	4.2	24.3	nm	nm	4.5	15.4	0.17 U	0.28 J	10.6	719	
12/1-2/2015	nm	56.1	nm	87.8	nm	nm	nm	0.89 J	nm	6.6	9	669	
1/7/2016 & 1/11/2016	169	157	5.6	95.3	1.5	70	2.6	13.2	0.31 J	14.5	4.2	533	
5/3-4/2016	51.9	256	31.7	101	1.3	55	2.5	19.3	1.7	21.5	4.3	546	
11/9/2016	nm	nm	36.2	137	2.6	nm	nm	nm	nm	nm	nm	588	
Percent Reduction	30%	10%	82%	62%	84%	75%	-140%	57%	-	84%	51%	55%	**4th Quarter 2014**
	-	25%	77%	86%	-	-	-11%	94%	-	90%	71%	69%	**1st Quarter 2015**
	-	61%	100%	90%	-	-	31%	78%	-	92%	62%	76%	**2nd Quarter 2015**
	-	46%	98%	91%	-	-	82%	82%	-	87%	48%	74%	**3rd Quarter 2015**
	-	89%	99%	94%	-	-	77%	100%	-	97%	63%	83%	**4th Quarter 2015**
	66%	69%	98%	93%	99%	84%	87%	93%	-	93%	83%	86%	**1st Quarter 2016**
	90%	50%	89%	93%	99%	87%	87%	89%	-	89%	82%	86%	**2nd Quarter 2016**
	-	-	87%	91%	99%	-	-	-	-	-	-	85%	**Annual Event 2016**

Notes:
TCE = Trichloroethylene
nm = Not measured
µg/L = Micrograms per liter
U = Not detected above noted method detection limit

RAMBOLL ENVIRON

TABLE 13
CALCULATION OF VARIATION IN TCE CONCENTRATION BY SAMPLING EVENT
Whirlpool Facility - Fort Smith, Arkansas

Well ID			Average Pre-ISCO TCE Concentration (µg/L)	Sampling Event Date													Description
				March 2014	May 2014	July 2014	Sept/Oct 2014	Dec 2014	Jan 2015	April/May 2015	July 2015	Oct 2015	Jan 2016	May 2016	Nov 2016	Comparison of Lowest Post-ISCO and Pre-ISCO	Rebound	
Area 1																	
ITMW-18	3rd Event (October 2014)	TCE Conc. (µg/L)	7795	9380	2940	5360	3540	3690	488	43.5	24.7	12.9	48.8	13.9	10.1	0.1%	0%	No indication of rebound.
		% Change Avg. to Event		-	-	-	**ISCO**	-53%	-94%	-99%	-100%	-100%	-99%	-100%	-100%			
ITMW-19	3rd Event (October 2014)	TCE Conc. (µg/L)	12563	8850	15300	13300	12800	33.5	17.4	594	15.2	87.1	336	105	137	0.1%	1%	No indication of rebound.
		% Change Avg. to Event		-	-	-	**ISCO**	-100%	-100%	-95%	-100%	-99%	-97%	-99%	-99%			
MW-25	3rd Event (October 2014)	TCE Conc. (µg/L)	21375	14500	18500	71700	59800	2620	2510	4650	39800	68700	43400	53000	36900	11.7%	310%	Variability greater than 10% per monitoring ev
		% Change Avg. to Event		-	-	-	**ISCO**	-88%	-88%	-78%	86%	221%	103%	148%	73%			
MW-38	3rd Event (October 2014)	TCE Conc. (µg/L)	3130	1790	2040	1720	6970	3190	5440	3060	3420	2740	3680	3040	2860	87.5%	0%	Variability greater than 10% per monitoring ev ISCO not effective at this location.
		% Change Avg. to Event		-	-	-	**ISCO**	2%	74%	-2%	9%	-12%	18%	-3%	-9%			
MW-86	3rd Event (October 2014)	TCE Conc. (µg/L)	533000	NS	533000	NS	129000	169000	81200	46700	65100	131000	95500	64900	75100	8.8%	16%	Slight indication of rebound.
		% Change Avg. to Event		-	-	-	**ISCO**	-68%	-85%	-91%	-88%	-75%	-82%	-88%	-86%			
Areas 2 and 3																		
IW-77	4th Event (October 2014)	TCE Conc. (µg/L)	769	546	1460	1540	741	NS	201	153	130	24.3	95.3	101	137	3.2%	15%	Slight indication of rebound. One year sample collected after seven months
		% Change Avg. to Event		-29%	90%	100%	-4%	-	-74%	-80%	-83%	**ISCO**	-88%	-87%	-82%			
IW-78	4th Event (October 2014)	TCE Conc. (µg/L)	190.5	NS	255	NS	39.6	NS	1.5	1.3	NS	NS	1.5	1.3	2.6	1.4%	NA	No indication of rebound.
		% Change Avg. to Event		--	34%	--	-79%	--	NA	NA	--	**ISCO**	--	--	--			
Neck Area																		
MW-83	4th Event (October 2014)	TCE Conc. (µg/L)	470	NS	470	NS	213	NS	101	151	27.9	9.8	1.1	3.3	0.63	0.2%	0%	No indication of rebound. One year sample collected after seven months
		% Change Avg. to Event		-	-	--	-55%	-	-79%	-68%	-94%	**ISCO**	-100%	-99%	-100%			
MW-84	4th Event (October 2014)	TCE Conc. (µg/L)	214	NS	214	NS	0.93	NS	<0.5	<0.5	0.29	<0.17	<0.17	<0.17	<0.17	0.0%	0%	No indication of rebound. One year sample collected after seven months
		% Change Avg. to Event		-	-	-	-100%	-	-100%	-100%	-100%	**ISCO**	-100%	-100%	-100%			

Notes:

Rebound: Values used for the rebound calculation as directed by the ADEQ staff are highlighted based upon the ISCO dates from Table 2.

TCE = Trichloroethane

µg/L = Micrograms per liter

One-Year Post-ISCO Concentration is shaded - Orange (may also consist of the lowest post-ISCO concentration)

Lowest Post-ISCO Concentration is shaded - Blue

The pre-ISCO concentration in Table 2 is based upon the initial ISCO event performed at or near the respective well. The calculation of rebound in this table is based upon the last comprehensive ISCO event in the respective area.

RAMBOLL ENVIRON

TABLE 14
SUMMARY OF WATER QUALITY PARAMETERS (MW-61R PILOT TEST)
Whirlpool Facility - Fort Smith, Arkansas

Well	Time - Time Stamp	TOC Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	Temperature (°C)	Conductivity (µS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Fe(II) (mg/L)	Notes
MW-61R	9/18/2015 15:07	459.31	4.5	454.81	25.09	687	0.38	6.22	-147.3	ND	Pre-Injection Baseline
	9/30/2015 12:51	459.31	3.05	456.26							During Injection
	9/30/2015 14:25	459.31	7.72	451.59	24.06	531	1.37	6.29	79.1	2.4	
	9/30/2015 14:44	459.31	8.14	451.17	23.93	526	1.25	6.29	84.6	3.3	
	9/30/2015 15:46	459.31	8.80	450.51	23.80	530	1.31	6.23	78.8		
	9/30/2015 17:04	459.31	14.14	445.17	23.00	564	0.32	6.47	15.4		
	10/1/2015 10:46	459.31	2.96	456.35							
	10/1/2015 11:19	459.31	8.40	450.91	23.49	646	3.75	6.28	111.3	ND	
	10/1/2015 13:13	459.31	13.13	446.18	22.98	678	1.46	6.34	65.5	3.3	
	10/1/2015 14:00	459.31	14.84	444.47	22.71	680	1.06	6.35	58.4	3.3	
	10/1/2015 17:30	459.31			23.64	658	5.00	6.45	94.8		
	10/2/2015 8:44	459.31	1.85	457.46							
	10/2/2015 9:18	459.31			23.33	720	2.99	6.28	-33.8		
	10/2/2015 13:44	459.31			23.33	1189	3.08	6.29	-50	3.3	
	10/2/2015 15:26	459.31			23.91	1090	2.74	6.24	-57.2	3.3	
	10/8/2015 9:40	459.31	3.08	456.23							6 days post injection
	10/8/2015 10:25	459.31	6.65	452.66	24.55	4238	1.30	5.52	-13.1	>3.3	
	10/22/2015 9:35	459.31	7.15	452.16	23.96	2190	0.00	6.20	-152	3.0	20 days post injection
	11/4/2015 14:31	459.31	5.45	453.86	23.77	1790	0.07	6.50	-105.6	3.3	30 days post injection
	12/1/2015 15:55	459.31	6.49	452.82	19.70	1802	0.08	6.85	-148.7	2.8	60 days post injection
	1/8/2016 8:30	459.31	7.10	452.21	16.18	1207	0.21	6.82	-117.3	>3.0	90 days post injection
	5/3/2016 12:10	459.31	6.40	452.91	18.18	1250	0.17	6.79	-124.8	>3.3	210 days post injection
	11/7/2016 0:00	459.31	7.60	451.71	21.34	1063	0.63	7.67	-170.5	>3.3	405 days post injection
TMW-10	9/18/2015 13:40	460.75	4.2	456.55	23.96	932	0.78	6.31	-183.9	ND	Pre-Injection Baseline
	9/30/2015 11:34	460.75	3.34	457.41							During Injection
	9/30/2015 17:57	460.75	4.95	455.80	21.1	753	1.79	6.47	167.1		
	10/1/2015 18:03	460.75			21.75	906	6.61	6.53	162.0		
	10/2/2015 8:59	460.75	1.89	458.86							
	10/2/2015 9:42	460.75			21.25	866	4.84	6.40	132.1	0.41	
	10/2/2015 11:22	460.75			21.59	868	5.08	6.38	190.1	3.3	
	10/8/2015 12:15	460.75	0	460.75							6 days post injection
	10/8/2015 12:57	460.75	1.16	459.59	23.13	833	4.24	6.40	101.4	>3.3	
	11/4/2015 13:05	460.75	2.6	458.15	21.65	871	3.00	6.34	97.6		30 days post injection
	12/1/2015 13:58	460.75	3.91	456.84	19.67	800	2.02	6.29	136.2	1.4	60 days post injection
	1/8/2016 8:40	460.75	5.00	455.75	16.94	822	2.17	6.19	209.8	0.14	90 days post injection
	5/4/2016 10:10	460.75	5.70	455.05	17.10	869	1.12	6.40	135.5	0.13	210 days post injection
	11/8/2016 0:00	460.75	4.61	456.14	20.32	892	0.50	6.31	187	0.67	405 days post injection

TABLE 14
SUMMARY OF WATER QUALITY PARAMETERS (MW-61R PILOT TEST)
Whirlpool Facility - Fort Smith, Arkansas

Well	Time - Time Stamp	TOC Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	Temperature (°C)	Conductivity (µS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Fe(II) (mg/L)	Notes
TMW-11	9/18/2015 10:05	460.20	3.49	456.71	23.93	1005	3.07	6.52	12.4	ND	Pre-Injection Baseline
	10/1/2015 9:34	460.20	2.51	457.69							During Injection
	10/1/2015 10:31	460.20	3.49	456.71	22.07	985	2.58	6.75	126.8	ND	
	10/1/2015 18:08	460.20			21.27	968	6.71	6.86	166		
	10/2/2015 13:58	460.20			21.00	1147	4.06	6.62	28.3	3.3	
	10/2/2015 15:46	460.20			21.39	1033	3.05	6.58	37		
	10/8/2015 13:02	460.20	6.44	453.76	23.35	5448	1.01	5.72	-61.9	3.0	6 days post injection
	11/4/2015 14:00	460.20	1.98	458.22	21.59	4,196	5.16	6.24	-18.4	3.3	30 days post injection
	12/1/2015 13:35	460.20	3.25	456.95	17.07	5,609	0.11	6.74	-150.3	>3.0	60 days post injection
	1/8/2016 8:53	460.20	4.43	455.77	15.83	3,793	0.16	7.19	-128	>3.0	90 days post injection
	5/3/2016 15:10	460.20	4.96	455.24	18.93	2,512	0.15	7.17	-153.8	*	210 days post injection
	11/8/2016 0:00	460.20	3.75	456.45	22.83	1,834	0.21	7.1	-131.1	>3.3	405 days post injection

Notes:

µS/cm =
mg/L = MicroSiemens per centimeter
ND = Miligrams per liter
TOC = Not detected
DO = Top of casing
ORP = Dissolved oxygen
mV = Oxidation reduction potential
* = Millivolts
NA= Inconclusive test
Not Analyzed

Injection intervals: 8 to 10 feet (ft) below ground surface (bgs) and 10 to 12 ft., bgs (see boring logs for modification of injection intervals).
Injection pressures: 150 psi air surge to clear injection rod ports and develop pathway-breakout, injection pressures 80 to 100 psi at injection pump.
Injection solution at each depth interval: 85.2 pounds (lbs) Provectus IR; 7.5 (lbs) MgO; 0.15 lbs DHC inoculum; (55 gallons total solution).
10/1/15, 15:08 hours, pressurization, gurgling TMW-10 during injection at IP-34.
10/1/15, 15:52 hours, pressurization, gurgling MW-61R during injection at IP-12.
10/2/15, 10:06 hours, pressurization, TMW-11 well cap displaced during injection at IP-26.
10/2/15, yellow GW, solids, yeast-odor MW-61R.
10/2/15, yellow GW, solids, yeast-odor TMW-11.

TABLE 15
GROUNDWATER SAMPLE ANALYTICAL RESULTS ISCR PILOT WELLS
(July 2015 - May 2016)
Whirlpool Facility - Fort Smith, Arkansas

Location	Remedial Action Levels per ADEQ RADD Issued Dec 2013	MW-61R	MW-61R	MW-61R	MW-61R	MW-61R	MW-61R	MW-61R	MW-61R	MW-61R	TMW-10	TMW-10	TMW-10	TMW-10	TMW-10
Field Sample ID		MW-61R-201507	MW-61R-GW-091815	MW-61R-201510	DUP-02-201510	MW-61R-201511	MW-61R-201512	MW-61R-201601	MW-61R-201605	MW-61R-201611	TMW-10-GW-091815	TMW-10-201510	TMW-10-201511	TMW-10-201512	TMW-10-201601
Lab Sample ID(s)		057MG030, 161940005, 60198937025	167200003, 60203213003	086MJ09, 169690006, 60204767001	60204767002	60206665003	175080003, 60208468003	179040010, 021NA08	190510021, 190770016, 60218288008, 002NE033	60231722001, 209510002, 037NK05	167200002, 60203213002	60204791002	60206665001	175080001, 60208468001	60210924001
Sample Date		7/21/2015	9/18/2015	10/8/2015	10/8/2015	11/4/2015	12/1/2015	1/8/2016	5/3/2016	11/07/2016	9/18/2015	10/8/2015	11/4/2015	12/1/2015	1/8/2016
Sample Method		Low Flow		Low Flow	Low Flow			Low Flow	Low Flow	Low Flow		Low Flow			Low Flow
Comments					Field Duplicate										
Volatile Organic Compounds															
Acetone	12000	U (1.9)	U (1.9)	U (1.9)	U (1.9)	58.1 (1.9)	148 (1.9)	U (1.9)	U (1.9)	U (1.9)	U (1.9)	3.4 J (1.9)	8.4 J (1.9)	2.0 (1.9)	U (1.9)
Benzene	5	U (0.060)	U (0.060)	0.099 J (0.060)	0.11 J (0.060)	U (0.060)	0.10 J (0.060)	U (0.060)	U (0.060)	U (0.060)	U (0.060)	U (0.060)	U (0.060)	U (0.060)	U (0.060)
Bromodichloromethane	80	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)
Bromoform	80	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)
Bromomethane	7	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)
2-Butanone	4900	U (0.59)	U (0.59)	243 (0.59)	269 (0.59)	155 (0.59)	233 (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	3.6 J (0.59)	8.6 J (0.59)	U (0.59)	U (0.59)
Carbon Disulfide	720	U (0.12)	U (0.12)	0.34 J (0.12)	0.59 J (0.12)	0.49 J (0.12)	0.27 J (0.12)	U (0.12)	U (0.12)	UJ (0.12)	U (0.12)	U (0.12)	0.31 J (0.12)	U (0.12)	U (0.12)
Carbon Tetrachloride	5	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)
Chlorobenzene	100	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)
Chloroethane	12000	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)
Chloroform	80	0.45 J (0.14)	0.18 J (0.14)	0.20 J (0.14)	0.26 J (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)
Chloromethane	190	U (0.080)	U (0.080)	U (0.080)	U (0.080)	U (0.080)	0.52 J (0.080)	0.27 J (0.080)	U (0.080)	0.21 JB (0.080)	U (0.080)	U (0.080)	U (0.080)	0.29 J (0.080)	0.14 J (0.080)
Dibromochloromethane	80	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)
1,1-Dichloroethane	2.4	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)
1,2-Dichloroethane	5	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)
1,1-Dichloroethene	7	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	0.26 J (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)
cis-1,2-Dichloroethene	70	U (0.080)	U (0.080)	U (0.080)	U (0.080)	1.1 (0.080)	4.6 (0.080)	4.6 (0.080)	3.8 (0.080)	2.9 (0.080)	1.9 (0.080)	1.1 (0.080)	0.72 J (0.080)	0.88 J (0.080)	3.1 (0.080)
trans-1,2-Dichloroethene	100	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	0.36 J (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)
1,2-Dichloropropane	5	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)
1,3-Dichloropropene (total)	0.41	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)
cis-1,3-Dichloropropene		U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)
trans-1,3-Dichloropropene		U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)
Ethyl Benzene	700	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	0.28 J (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)
2-Hexanone	34	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)
4-Methyl-2-pentanone	1000	U (0.42)	U (0.42)	1.5 J (0.42)	1.5 J (0.42)	U (0.42)	0.61 J (0.42)	U (0.42)	U (0.42)	UJ (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)
Methylene Chloride	5	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	0.26 (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)
Styrene	100	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)
1,1,2,2-Tetrachloroethane	0.066	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)
Tetrachloroethene	5	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)	0.16 J (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)
Toluene	1000	U (0.17)	U (0.17)	0.22 J (0.17)	0.32 J (0.17)	U (0.17)	0.46 J (0.17)	0.23 J (0.17)	U (0.17)	0.48 J (0.17)	U (0.17)	U (0.17)	U (0.17)	U (0.17)	U (0.17)
1,1,1-Trichloroethane	200	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)
1,1,2-Trichloroethane	5	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)
Trichloroethene	5	14.7 (0.17)	16.5 (0.17)	11.7 (0.17)	13.3 (0.17)	9.2 (0.17)	5.0 (0.17)	3.9 (0.17)	5.3 (0.17)	2.3 (0.17)	190 (0.17)	102 (0.17)	120 (0.17)	114 (0.17)	103 (0.17)
Vinyl Chloride	2	U (0.13)	U (0.13)	U (0.13)	U (0.13)	U (0.13)	U (0.13)	U (0.13)	U (0.13)	U (0.13)	U (0.13)	U (0.13)	U (0.13)	U (0.13)	U (0.13)
Xylenes (total)	10000	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)
Metals															
Iron	NE	3790 (50.0)	4110 (50.0)	74000 M1 (50.0)	NM	NM	52400 (50.0)	27300 (50.0)	22000 (50.0)	11600 (50.0)	755 (50.0)	NM	NM	1730 (50.0)	NM
Manganese	NE	1480 (5.0)	NM	20000 M1 (5.0)	NM	NM	6320 (5.0)	2850 (5.0)	1710 (5.0)	1020 (5.0)	NM	NM	NM	37.4 (5.0)	NM
Monitored Natural Attenuation Parameters (Laboratory)															
Acetic acid	NE	U (5000)	U (5000)	1800000 (100000)	NM	NM	13000 (5000)	U (5000)	U (5000)	NM	U (5000)	NM	NM	U (5000)	NM
Total Alkalinity	NE	124000 (20000)	NM	1190000 (40000)	NM	NM	862000 (20000)	U (20000)	384000 (20000)	362000 (20000)	NM	NM	NM	154000 (20000)	NM
Ammonia	NE	U (100)	NM	8100 (500)	NM	NM	NM	980 (100)	2000 (100)	1000 M1 (100)	NM	NM	NM	NM	NM
Bicarbonate Alkalinity	NE	124000 (20000)	NM	1190000 (40000)	NM	NM	862000 (20000)	U (20000)	384000 (20000)	362000 (20000)	NM	NM	NM	154000 (20000)	NM
Butyric acid	NE	U (5000)	U (5000)	280000 (100000)	NM	NM	U (5000)	U (5000)	U (5000)	NM	U (5000)	NM	NM	U (5000)	NM
Carbon Dioxide	NE	265000 (20000)	NM	8230000 (20000)	NM	NM	1000000 (20000)	U (20000)	463000 (20000)	NM	NM	NM	NM	294000 (20000)	NM
Organic Carbon (total)	NE	U (1000)	U (1000)	1620000 (200000)	NM	NM	NM	7700 (2000)	2800 (1000)	3400 (1000)	U (1000)	NM	NM	NM	NM
Organic Carbon (dissolved)	NE	NM	U (1000)	NM	NM	NM	NM	4000 (1000)	2500 (1000)	1700 (100)	U (1000)	NM	NM	NM	NM
Carbonate Alkalinity	NE	U (20000)	NM	U (40000)	NM	NM	U (20000)	U (20000)	U (20000)	U (20000)	NM	NM	NM	U (20000)	NM
Chloride	NE	110000 (10000)	108000 (10000)	130000 (20000)	NM	NM	NM	81200 (5000)	83600 (10000)	87300 (10000)	177000 (10000)	NM	NM	NM	NM
2-Chloroethanol	NE	U (10000)	U (10000)	U (10000)	NM	NM	NM	U (10000)	U (10000)	NM	U (10000)	NM	NM	NM	NM
Iron, Ferric	NE	2000 (200)	4100 (200)	70700 (200)	NM	NM	NM	24300 (200)	18600 (200)	NM	760 (200)	NM	NM	NM	NM
Lactic Acid	NE	U (10000)	U (10000)	U (20000)	NM	NM	U (10000)	U (10000)	U (10000)	NM	U (10000)	NM	NM	U (10000)	NM
Nitrogen	NE	1300 M1 (100)	1400 (100)	110 M1 (100)	NM	NM	NM	U (100)	U (100)		280 (100)	NM	NM	NM	NM
Nitrogen, Nitrate (As N)	NE	1300 (100)	1400 (100)	110 M1 (100)	NM	NM	U (1000)	U (100)	U (100)	NM	280 (100)	NM	NM	1900 (1000)	NM
Nitrogen, Nitrite	NE	U (100)	U (100)	U (100)	NM	NM	U (1000)	U (100)	U (100)	NM	U (100)	NM	NM	U (1000)	NM
pH [PH UNITS]	NE	6.2 (0.10)	NM	5.5 (0.10)	NM	NM	6.8 (0.10)	6.8 (0.10)	6.8 (0.10)		NM	NM	NM	6.3 (0.10)	NM
Phosphates (total)	NE	130 M1 (30)	NM	3600 (310)	NM	NM	NM	180 (30)	590 (30)	260 M1 (30)	NM	NM	NM	NM	NM
Propionic Acid	NE	U (5000)	U (5000)	140000 (100000)	NM	NM	76000 (5000)	U (5000)	U (5000)	NM	U (5000)	NM	NM	U (5000)	NM
Pyruvic Acid	NE	U (5000)	U (5000)	U (10000)	NM	NM	U (5000)	U (5000)	U (5000)	NM	U (5000)	NM	NM	U (5000)	NM
Sulfide (total)	NE	U (50)	NM	21 J (50)	NM	NM	NM	U (50)	U (50)	U (50)	NM	NM	NM	NM	NM
Sulfate	NE	14800 (1000)	11000 (1000)	79000 (5000)	NM	NM	7400 (1000)	12100 (1000)	7500 (1000)	7900 (1000)	2100 (1000)	NM	NM	3700 (1000)	NM
Gases															
Acetylene	NE	U (0.50)	NM	U (0.50)	NM	NM	U (0.50)	U (0.50)	U (0.50)	U (0.50)	NM	NM	NM	U (0.50)	NM
Methane	NE	4.5 (0.50)	2.1 (0.50)	4.3 (0.50)	NM	NM	10000 (0.50)	12000 (0.50)	12000 (0.50)	9400 (0.50)	U (0.50)	NM	NM	1.3 (0.50)	NM
Ethane	NE	1.4 (0.10)	0.31 (0.10)	0.33 (0.10)	NM	NM	0.41 (0.10)	1.7 (0.10)	2.0 (0.10)	1.1 (0.10)	U (0.10)	NM	NM	U (0.10)	NM
Ethene	NE	1.1 (0.10)	0.48 (0.10)	1.2 (0.10)	NM	NM	2.7 (0.10)	1.7 (0.10)	0.58 (0.10)	0.18 (0.10)	U (0.10)	NM	NM	U (0.10)	NM
Hydrogen (H2) [nM]*	NE	2.0 (0.60)	NM	500 d (12)	NM	NM	NM	0.98 (0.60)	1.1 (0.60)	4.2 (2.4)	NM	NM	NM	NM	NM
Molecular Analyses															
BAV1 Vinyl Chloride Reductase [cells/mL]	NE	U (0.5)	NM	1.9 (1)	NM	NM	NM	U (1)	U (1.25)	6.2 (0.5)	NM	NM	NM	NM	NM
Dehalococcoides (DHC) [cells/mL]	NE	U (0.5)	NM	184 (1)	NM	NM	NM	30 (1)	44.1 (1.25)	163 (0.5)	NM	NM	NM	NM	NM
tceA Reductase [cells/mL]	NE	U (0.5)	NM	U (1)	NM	NM	NM	U (1)	U (1.25)	0.6 (0.5)	NM	NM	NM	NM	NM
Vinyl Chloride Reductase (vrcA) [cells/mL]	NE	U (0.5)	NM	0.3 J (1)	NM	NM	NM	U (1)	U (1.25)	16.6 (0.5)	NM	NM	NM	NM	NM

Notes:

1 All concentrations are presented in ug/L except where noted.
2 All compounds are shown.
3 Concentrations that exceed the Remedial Action Levels per ADEQ RADD Issued Dec 2013 are double underlined.

U = Not detected
J = Estimated concentration
d = The analyte concentration was determined from a dilution.
( ) = Method detection limit for VOCs; reporting limit for all other parameters
* = Sampled on different day than other parameters with different method

RADD = Remedial action decision document
ADEQ = Arkansas Department of Environmental Quality
VOC = Volatile organic compounds
µg/L = Micrograms per liter
mL = Milliliters
NE = Not established
NM = Not measured

RAMBOLL ENVIRON

TABLE 15
GROUNDWATER SAMPLE ANALYTICAL RESULTS ISCR PILOT WELLS
(July 2015 - May 2016)
Whirlpool Facility - Fort Smith, Arkansas

Location	Remedial Action Levels per ADEQ RADD Issued Dec 2013	TMW-10	TMW-10	TMW-11	TMW-11	TMW-11	TMW-11	TMW-11	TMW-11	TMW-11
Field Sample ID		TMW-10-201605	TMW-10-201611	TMW-11-GW-091815	TMW-11-201510	TMW-11-201511	TMW-11-201512	TMW-11-201601	TMW-11-201605	TMW-11-201611
Lab Sample ID(s)		190520001, 190770017, 60218387004, 002NE037	60231848024, 209510003, 037NK07	167200001, 60203213001	60204791001	60206665002	175080002, 60208468002	179040011, 021NA010	190510020, 190770018, 60218288007, 002NE032	60231848015, 209510007, 037NK03
Sample Date		5/4/2016	11/08/2016	9/18/2015	10/8/2015	11/4/2015	12/1/2015	1/8/2016	5/3/2016	11/08/2016
Sample Method		Low Flow	Low Flow		Low Flow			Low Flow	Low Flow	Low Flow
Comments										
Volatile Organic Compounds										
Acetone	12000	U (1.9)	U (1.9)	U (1.9)	104 (1.9)	636 (1.9)	1420 (9.4)	1120 (9.4)	15.4 (1.9)	5.0 J (1.9)
Benzene	5	U (0.060)	U (0.060)	U (0.060)	0.27 J (0.060)	U (0.060)	0.15 J (0.060)	0.11 J (0.060)	0.11 J (0.060)	0.10 J (0.060)
Bromodichloromethane	80	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)	U (0.19)
Bromoform	80	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)
Bromomethane	7	U (0.16)	U (0.16)	U (0.16)	U (0.16)	1.8 J (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)
2-Butanone	4900	U (0.59)	U (0.59)	U (0.59)	135 (0.59)	810 (0.59)	1410 (3.0)	902 (0.59)	19.7 (0.59)	U (0.59)
Carbon Disulfide	720	U (0.12)	U (0.12)	U (0.12)	0.92 J (0.12)	2.6 J (0.12)	0.38 J (0.12)	0.68 J (0.12)	0.56 J (0.12)	0.26 J (0.12)
Carbon Tetrachloride	5	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)
Chlorobenzene	100	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)
Chloroethane	12000	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	0.48 J (0.15)	U (0.15)	U (0.15)	U (0.15)
Chloroform	80	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)
Chloromethane	190	U (0.080)	U (0.080)	U (0.080)	U (0.080)	U (0.080)	0.46 J (0.080)	0.31 J (0.080)	U (0.080)	U (0.080)
Dibromochloromethane	80	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)	U (0.21)
1,1-Dichloroethane	2.4	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)
1,2-Dichloroethane	5	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)
1,1-Dichloroethene	7	0.23 J (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)
cis-1,2-Dichloroethene	70	12.9 (0.080)	4.4 (0.080)	0.15 J (0.080)	U (0.080)	2.5 (0.080)	5.8 (0.080)	5.3 (0.080)	3.6 (0.080)	4.7 (0.080)
trans-1,2-Dichloroethene	100	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	0.64 J (0.20)	U (0.20)	U (0.20)	U (0.20)
1,2-Dichloropropane	5	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)
1,3-Dichloropropene (total)	0.41	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)
cis-1,3-Dichloropropene		U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)
trans-1,3-Dichloropropene		U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)
Ethyl Benzene	700	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)
2-Hexanone	34	U (1.2)	U (1.2)	U (1.2)	U (1.2)	3.6 J (1.2)	5.3 J (1.2)	3.9 J (1.2)	U (1.2)	U (1.2)
4-Methyl-2-pentanone	1000	U (0.42)	U (0.42)	U (0.42)	4.0 J (0.42)	2.0 J (0.42)	1.6 J (0.42)	1.1 J (0.42)	0.89 J (0.42)	1.1 J (0.42)
Methylene Chloride	5	U (0.15)	U (0.15)	U (0.15)	0.66 (0.15)	U (0.15)	0.30 (0.15)	U (0.15)	U (0.15)	U (0.15)
Styrene	100	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)
1,1,2,2-Tetrachloroethane	0.066	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)
Tetrachloroethene	5	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)
Toluene	1000	U (0.17)	U (0.17)	U (0.17)	0.46 J (0.17)	U (0.17)	0.57 J (0.17)	0.44 J (0.17)	0.90 J (0.17)	0.87 J (0.17)
1,1,1-Trichloroethane	200	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)
1,1,2-Trichloroethane	5	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)
Trichloroethene	5	123 (0.17)	95.4 (0.17)	31.1 (0.17)	14.3 (0.17)	6.3 (0.17)	0.63 J (0.17)	3.1 (0.17)	8.1 (0.17)	1.2 (0.17)
Vinyl Chloride	2	U (0.13)	U (0.13)	U (0.13)	U (0.13)	U (0.13)	U (0.13)	U (0.13)	U (0.13)	U (0.13)
Xylenes (total)	10000	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)
Metals										
Iron	NE	2160 (50.0)	133 (50.0)	5220 (50.0)	NM	NM	193000 (50.0)	20900 (50.0)	11700 (50.0)	7730 (50.0)
Manganese	NE	20.6 (5.0)	NM	NM	NM	NM	35900 (50.0)	4090 (5.0)	1850 (5.0)	NM
Monitored Natural Attenuation Parameters (Laboratory)										
Acetic acid	NE	U (5000)	NM	U (5000)	NM	NM	1600000 (25000)	18000 (5000)	U (5000)	NM
Total Alkalinity	NE	171000 (20000)	NM	NM	NM	NM	2630000 (60000)	1750000 (40000)	967000 (20000)	NM
Ammonia	NE	U (100)	NM	NM	NM	NM	NM	1900 (100)	6600 (100)	NM
Bicarbonate Alkalinity	NE	171000 (20000)	NM	NM	NM	NM	2630000 (60000)	1750000 (40000)	967000 (20000)	NM
Butyric acid	NE	U (5000)	NM	U (5000)	NM	NM	600000 (25000)	U (5000)	U (5000)	NM
Carbon Dioxide	NE	287000 (20000)	NM	NM	NM	NM	3270000 (20000)	1770000 (20000)	982000 (20000)	NM
Organic Carbon (total)	NE	510 J (1000)	750 J (1000)	U (1000)	NM	NM	NM	306000 (100000)	46200 (10000)	29400 (3000)
Organic Carbon (dissolved)	NE	570 (1000)	NM	U (1000)	NM	NM	NM	284000 (50000)	22500 (2000)	NM
Carbonate Alkalinity	NE	U (20000)	NM	NM	NM	NM	U (60000)	U (40000)	U (20000)	NM
Chloride	NE	154000 (20000)	NM	149000 (10000)	NM	NM	NM	131000 (20000)	145000 (10000)	NM
2-Chloroethanol	NE	U (10000)	NM	U (10000)	NM	NM	NM	NM	U (10000)	NM
Iron, Ferric	NE	2000 (200)	U (200)	5200 (200)	NM	NM	NM	17900 (200)	11000 (200)	4400 (200)
Lactic Acid	NE	U (10000)	NM	U (10000)	NM	NM	160000 (10000)	64000 (10000)	U (10000)	NM
Nitrogen	NE	140 (100)	2100 (100)	U (100)	NM	NM	NM	U (100)	U (100)	U (100)
Nitrogen, Nitrate (As N)	NE	140 (100)	1100 (100)	U (100)	NM	NM	U (1000)	U (100)	U (100)	U (100)
Nitrogen, Nitrite	NE	U (100)	970 (100)	U (100)	NM	NM	U (1000)	U (100)	U (100)	19 J (100)
pH [PH UNITS]	NE	6.4 (0.10)		NM	NM	NM	6.7 (0.10)	7.2 (0.10)	7.2 (0.10)	
Phosphates (total)	NE	210 (30)	NM	NM	NM	NM	NM	350 (30)	1800 (30)	NM
Propionic Acid	NE	U (5000)	NM	U (5000)	NM	NM	550000 (25000)	260000 (5000)	U (5000)	NM
Pyruvic Acid	NE	U (5000)	NM	U (5000)	NM	NM	U (5000)	U (5000)	U (5000)	NM
Sulfide (total)	NE	U (50)	U (50)	NM	NM	NM	NM	NM	U (50)	U (50)
Sulfate	NE	2300 (1000)	2400 (1000)	3300 (1000)	NM	NM	910 J (1000)	1200 (1000)	2400 (1000)	680 J (1000)
Gases										
Acetylene	NE	U (0.50)	U (0.50)	NM	NM	NM	U (0.50)	U (0.50)	U (0.50)	U (0.50)
Methane	NE	700 (0.50)	24 (0.50)	0.57 (0.50)	NM	NM	12000 (0.50)	15000 (0.50)	17000 (0.50)	15000 (0.50)
Ethane	NE	0.36 (0.10)	U (0.10)	U (0.10)	NM	NM	0.16 (0.10)	0.36 (0.10)	0.67 (0.10)	0.85 (0.10)
Ethene	NE	0.15 (0.10)	0.25 (0.10)	U (0.10)	NM	NM	2.6 (0.10)	2.4 (0.10)	0.80 (0.10)	0.55 (0.10)
Hydrogen (H2) [nM][4]	NE	0.95 (0.60)	1.8 (0.60)	NM	NM	NM	NM	NM	1.2 (0.60)	2.2 (0.60)
Molecular Analyses										
BAV1 Vinyl Chloride Reductase [cells/mL]	NE	U (2)	0.5 (0.5)	NM	NM	NM	NM	U (8.33)	U (3.33)	26.9 (0.5)
Dehalococcoides (DHC) [cells/mL]	NE	U (2)	158 (0.5)	NM	NM	NM	NM	48.9 (8.33)	14.2 (3.33)	715 (0.5)
tceA Reductase [cells/mL]	NE	U (2)	14.3 (0.5)	NM	NM	NM	NM	3.2 J (8.33)	U (3.33)	1.7 (0.5)
Vinyl Chloride Reductase (vrcA) [cells/mL]	NE	U (2)	10.8 (0.5)	NM	NM	NM	NM	U (8.33)	U (3.33)	115 (0.5)

Notes:

1 All concentrations are presented in ug/L except where noted.

2 All compounds are shown.

3 Concentrations that exceed the Remedial Action Levels per ADEQ RADD Issued Dec 2013 are double underlined.

U = Not detected

J = Estimated concentration

d = The analyte concentration was determined from a dilution.

( ) = Method detection limit for VOCs; reporting limit for all other parameters

* = Sampled on different day than other parameters with different method

RAMBOLL ENVIRON

TABLE 16
SUMMARY OF TCE CONCENTRATIONS (ISCR PILOT STUDY)
Whirlpool Facility - Fort Smith, Arkansas

Event	Date(s)	MW-61R	TMW-10	TMW-11
Baseline	9/18/2015	16.5	190	31.1
4Q monitoring (6 days post)	10/8/2015	11.7	102	14.3
30 days after injection	11/5/2015	9.2	120	6.3
60 days after injection	12/1/2015	5	114	0.63
90 days after injecton	1/8/2016	3.9	103	3.1
210 days after injecton	5/3/2016	5.3	123	8.1
405 days after injecton	11/7/2016	2.3	95.4	1.2
	Percent Reduction	86.1%	49.8%	96.1%

Notes:

TCE = Trichloroethylene

Concentrations in micrograms per liter (µg/L)

RAMBOLL ENVIRON

Figures

FILE: L:\Loop Project Files\Whirlpool Fort Smith\2016 Annual M&R\GIS\mxd\2016 Annual Potentiometric Surface Map_20161206.mxd

0 150 300 450 600

Feet

1 inch = 300 feet

Notes
- Water levels measured November 7th, 2016

Brazil Ave

Ferguson St

Ingersoll Ave

Jenny Lind Rd

Boys Club Ln

MW-50R 453.77
MW-60R 457.96
MW-61R 452.53
MW-196 454.07
MW-195 456.94
MW-55R 462.39
MW-58R 461.73
MW-68 462.40
MW-57R 458.68
MW-194 457.10
MW-70 462.70
MW-71 462.70
RW-69 462.34
MW-56R 459.03
IW-72 462.60
MW-40R 462.72
IW-74 462.66
IW-73 462.73
IW-115 462.38
MW-81 462.74
MW-39R 462.88
MW-35R 462.72
MW-34R 462.85
IW-75 462.72
MW-41R 462.64
IW-76 462.59
MW-82 462.73
IW-77 462.81
IW-80 462.69
MW-36R 462.58
MW-46R 462.34
MW-62R 458.53
MW-63R 460.05
MW-97 450.47
MW-96 449.24
MW-183 450.20
MW-98 449.72
MW-83 462.64
IW-79 462.80
MW-26 463.18
MW-23 462.79
MW-84 462.58
MW-24 462.72
MW-27 462.70
MW-28 462.59
ITMW-16 462.73
MW-38 462.75
ITMW-3 461.82
MW-90 462.66
MW-89 457.01
MW-184 456.59
ITMW-17 462.57
ITMW-14 462.4
ITMW-2 462.25
MW-88 461.27
ITMW-20 462.8
MW-85 462.62
MW-25 462.79
MW-86 462.54
ITMW-13 462.49
ITMW-11 462.84
ITMW-12 462.49
ITMW-1 461.21
MW-22 461.56
MW-87 458.21
MW-91 457.60
ITMW-21 462.68
MW-92 462.73
MW-172 462.66
ITMW-19 462.59
ITMW-15 462.75
MW-93 462.58
MW-37 462.78
MW-94 462.41
ITMW-18 462.45
MW-95 462.49
MW-30 461.81
MW-29 461.94
ITMW-7 461.13
ITMW-5 460.11
ITMW-10 460.11
ITMW-4 460.01
ITMW-9 459.89
MW-185 459.29
ITMW-6 460.01
MW-182 459.39
MW-190 460.00
MW-191 459.92
MW-192 459.73
MW-186 455.78
MW-189 459.98
MW-187 457.42
MW-188 459.62

455 456 457 458 459 460 461 462 463

Monitoring Well Location
Groundwater Contour
Groundwater Contour (dashed where inferred)
Approximate Property Boundary

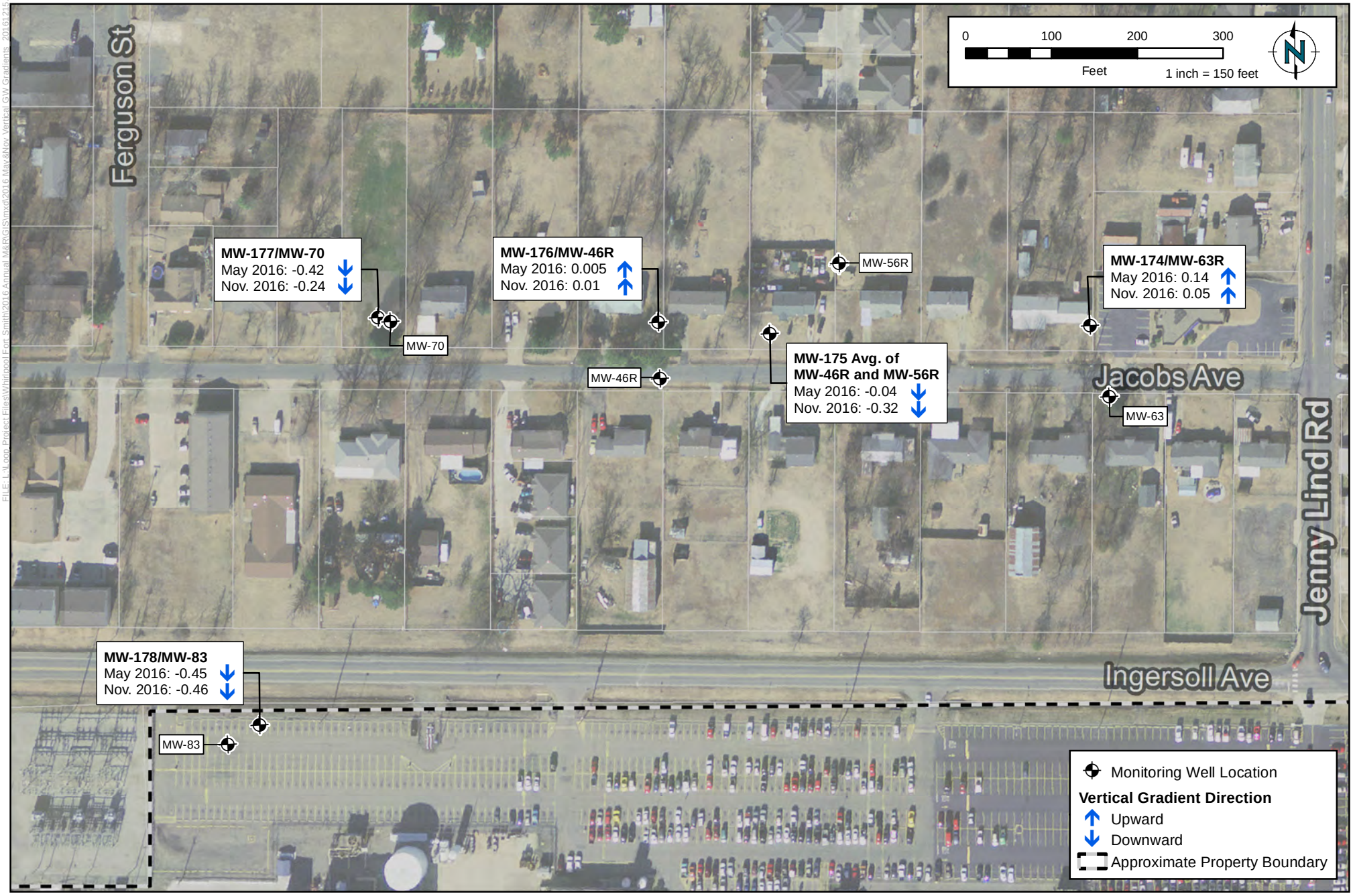
RAMBOLL ENVIRON

2016 ANNUAL SAMPLING POTENTIOMETRIC SURFACE

Whirlpool Facility - Fort Smith, Arkansas

Figure 1A

DRAFTED BY: FK | DATE: 12/06/2016 | PROJECT: 3437500Q



RAMBOLL ENVIRON

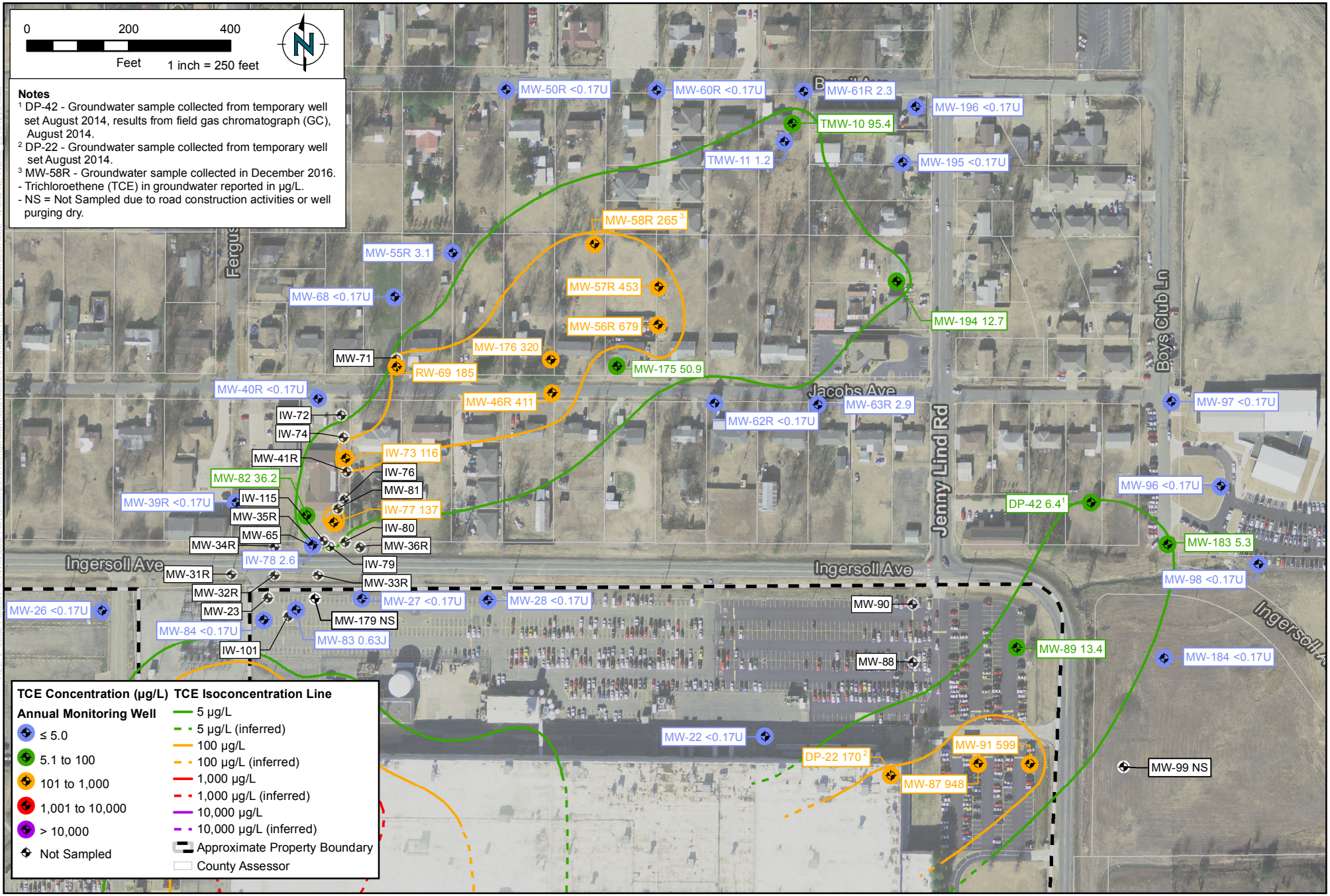
DRAFTED BY: FK | DATE: 12/15/2016

VERTICAL GROUNDWATER GRADIENTS OBSERVED IN NESTED WELLS MAY 2016 / NOVEMBER 2016

Whirlpool Facility - Fort Smith, Arkansas

Figure 1B

PROJECT: 3437500Q



RAMBOLL ENVIRON

DRAFTED BY: FK | DATE: 01/24/2017

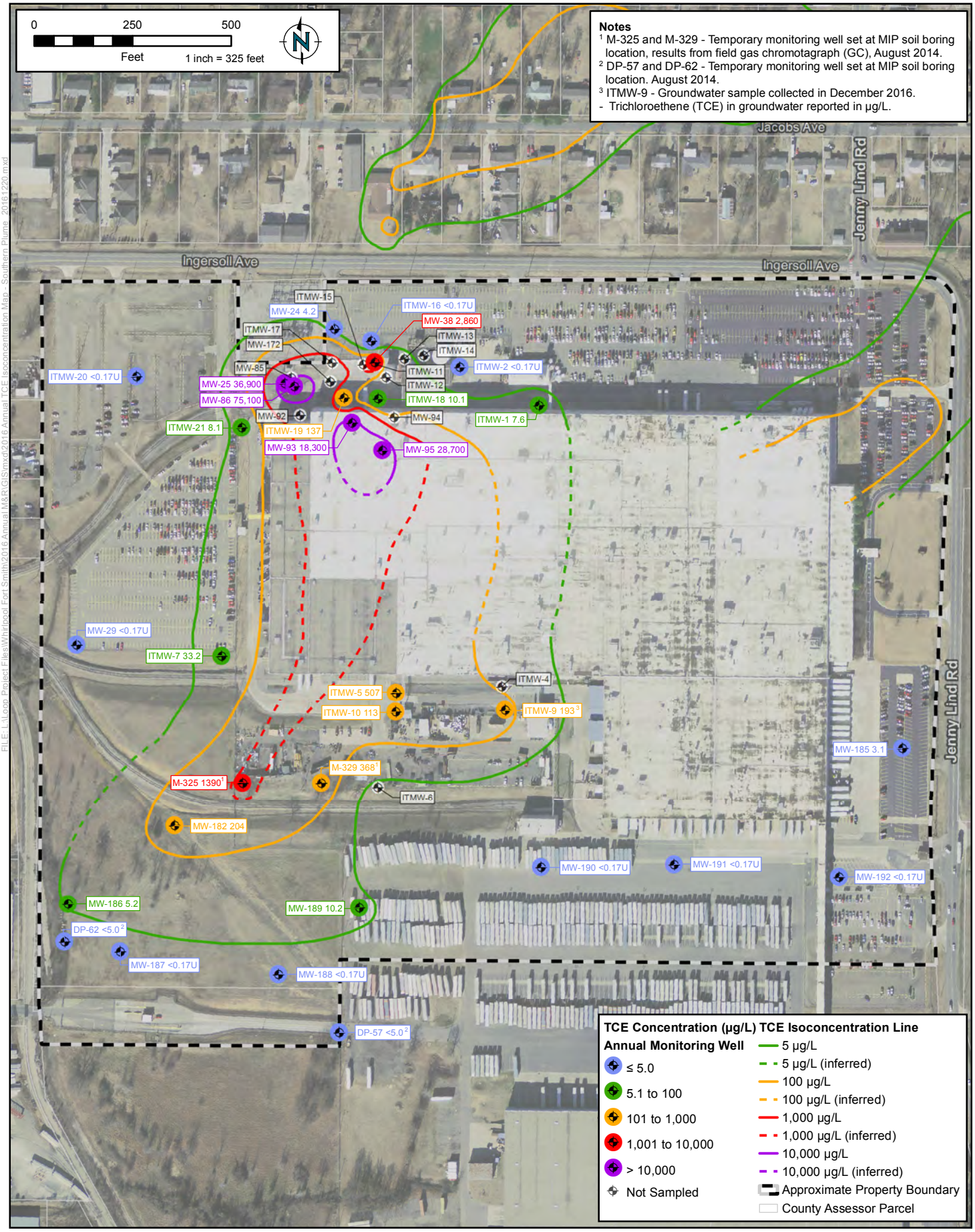
2016 ANNUAL SAMPLING TCE ISOCONCENTRATION MAP NORTHERN AND NORTHEASTERN PLUMES

Whirlpool Facility - Fort Smith, Arkansas

Figure 2A

PROJECT: 3437500Q

FILE: L:\Loop Project Files\Whirlpool Fort Smith\2016 Annual M&R\GIS\mxd\2016 Annual TCE Isoconcentration Map - N and NE Plume_20161220.mxd



RAMBOLL ENVIRON

2016 ANNUAL SAMPLING TCE ISOCONCENTRATION MAP SOUTHERN PLUME

Whirlpool Facility - Fort Smith, Arkansas

Figure 2B

DRAFTED BY: FK | DATE: 12/20/2016 | PROJECT: 3437500Q

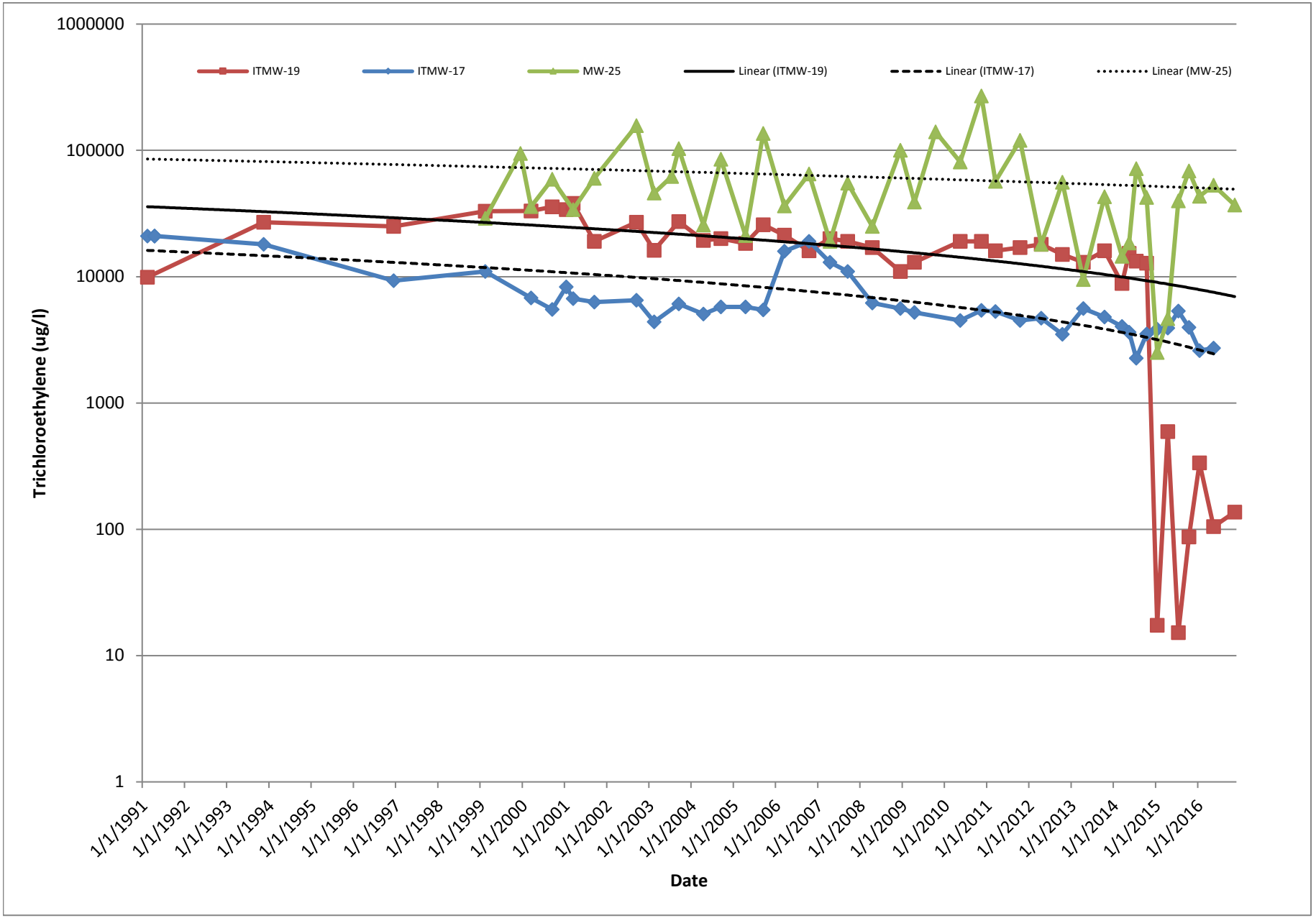


Figure 3
Whirlpool Facility
Fort Smith, Arkansas

RAMBOLL ENVIRON

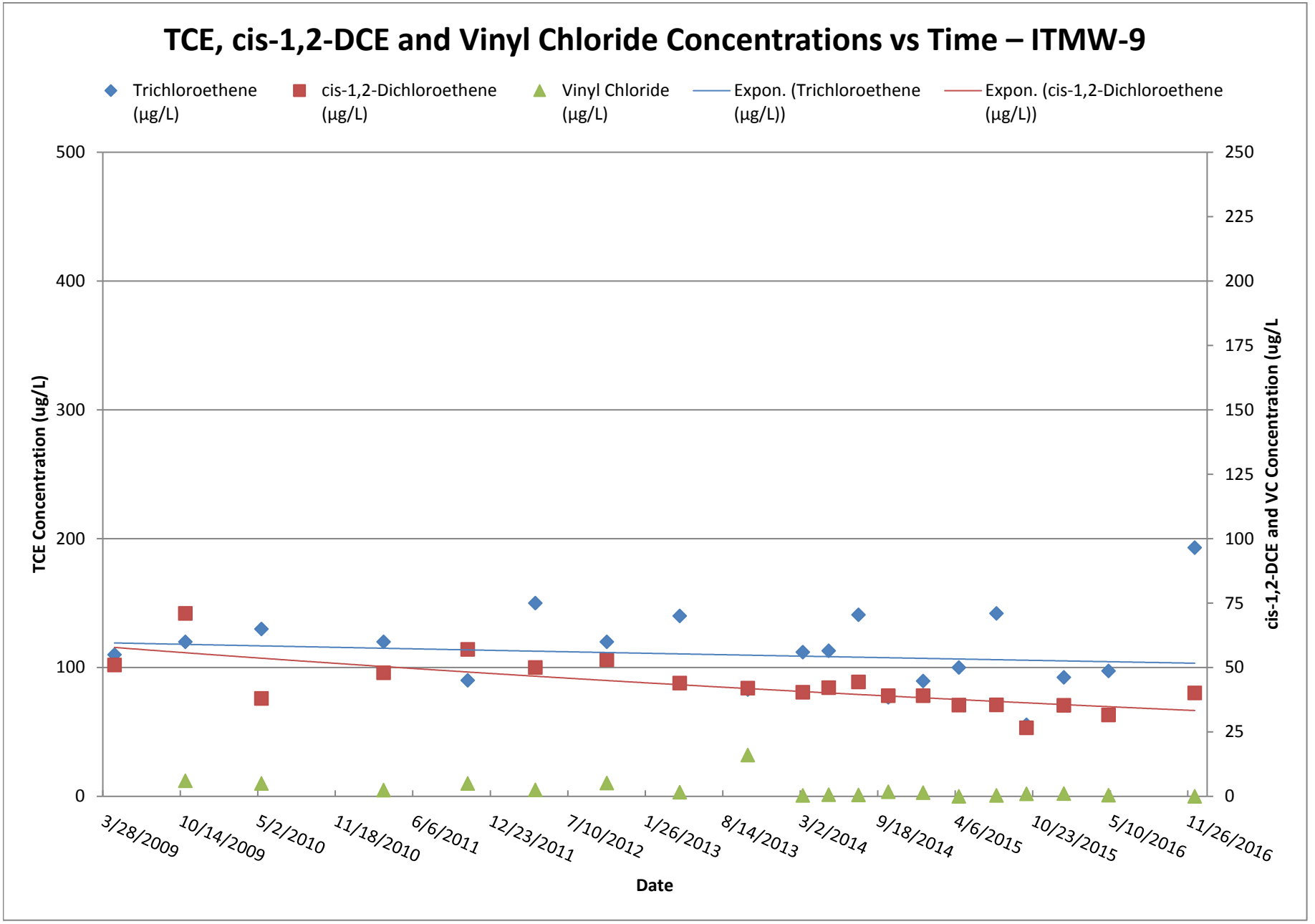


Figure 4A
Whirlpool Facility
Fort Smith, Arkansas

RAMBOLL ENVIRON

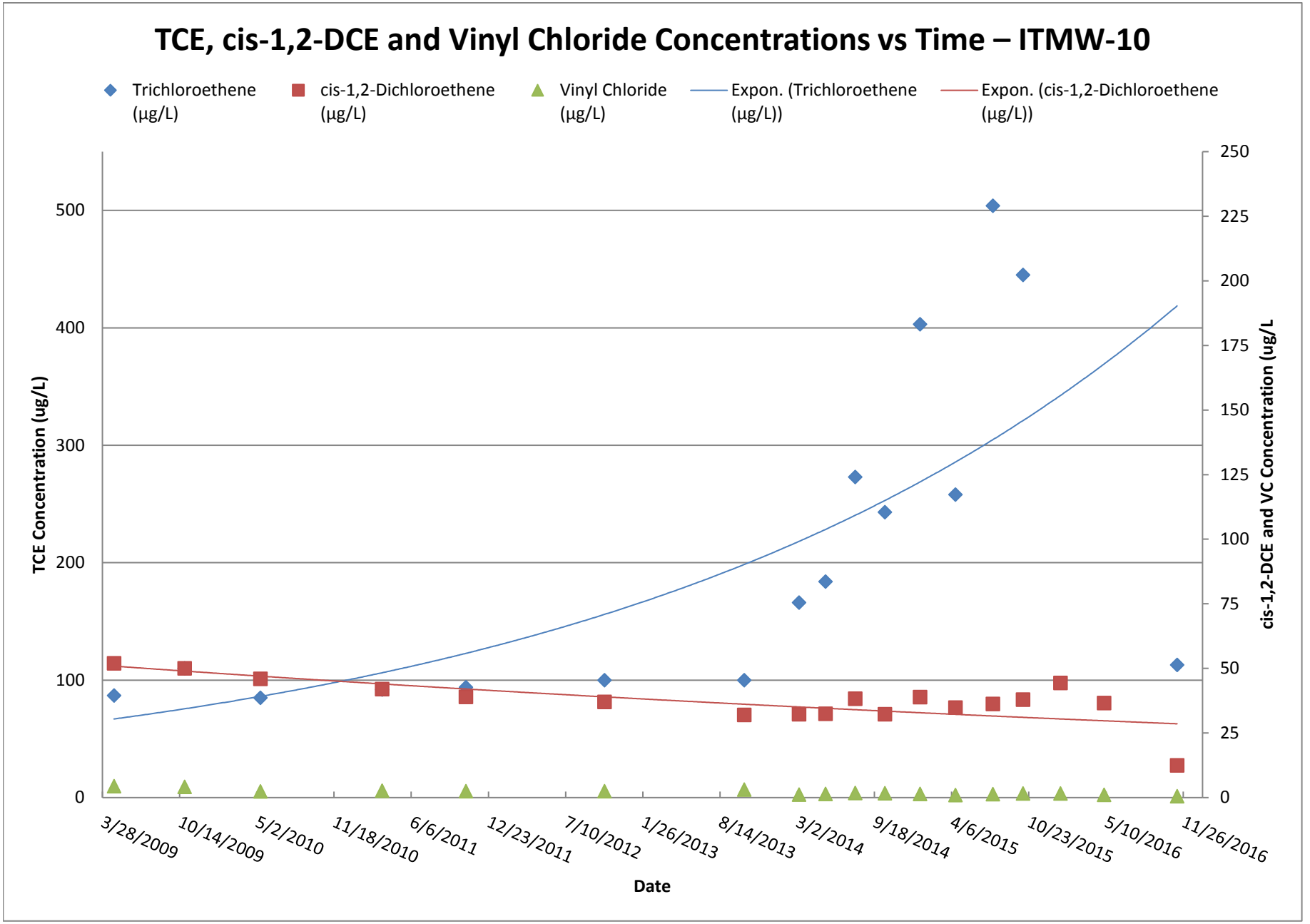


Figure 4B
Whirlpool Facility
Fort Smith, Arkansas

RAMBOLL ENVIRON

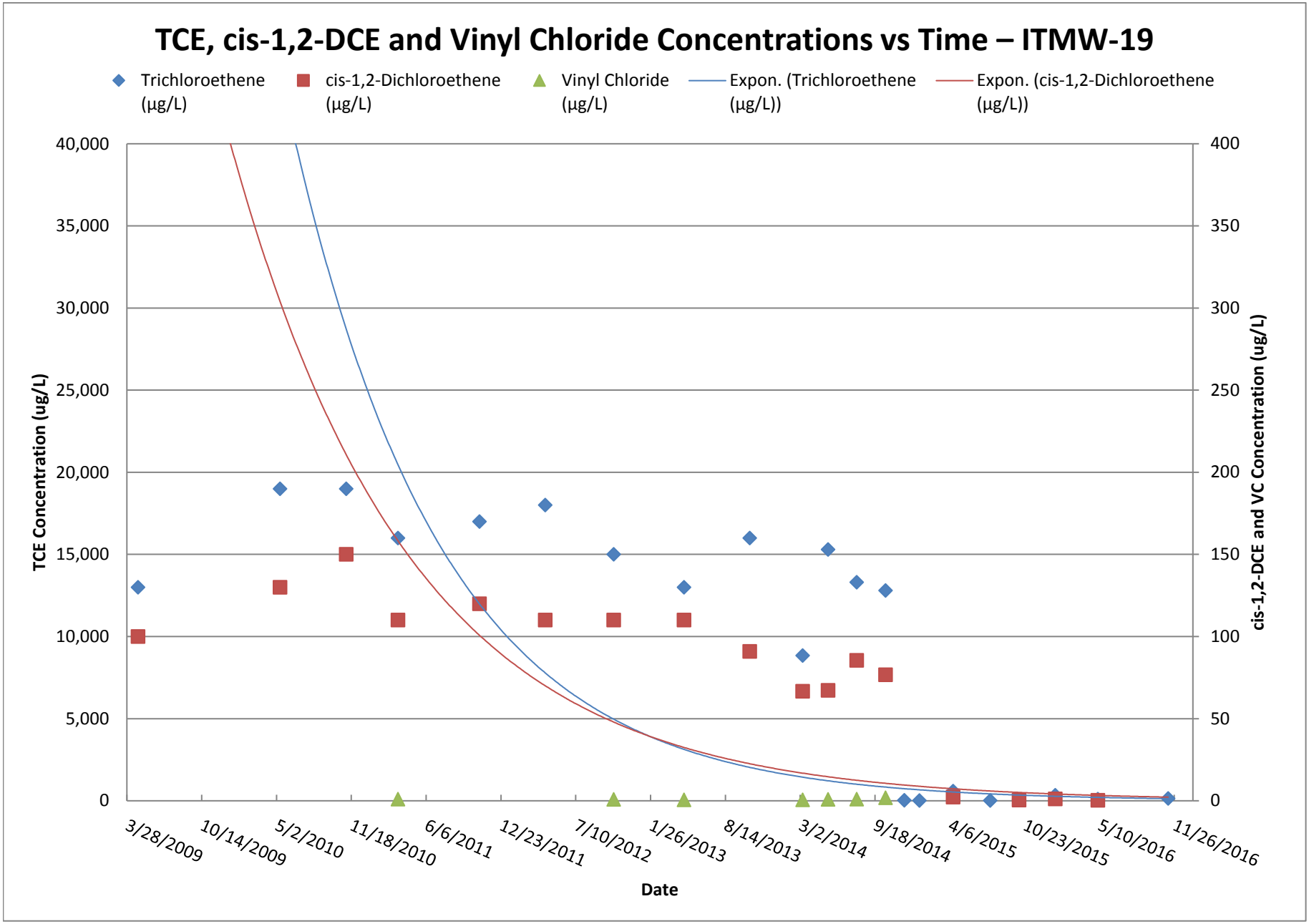


Figure 5A
Whirlpool Facility
Fort Smith, Arkansas

RAMBOLL ENVIRON

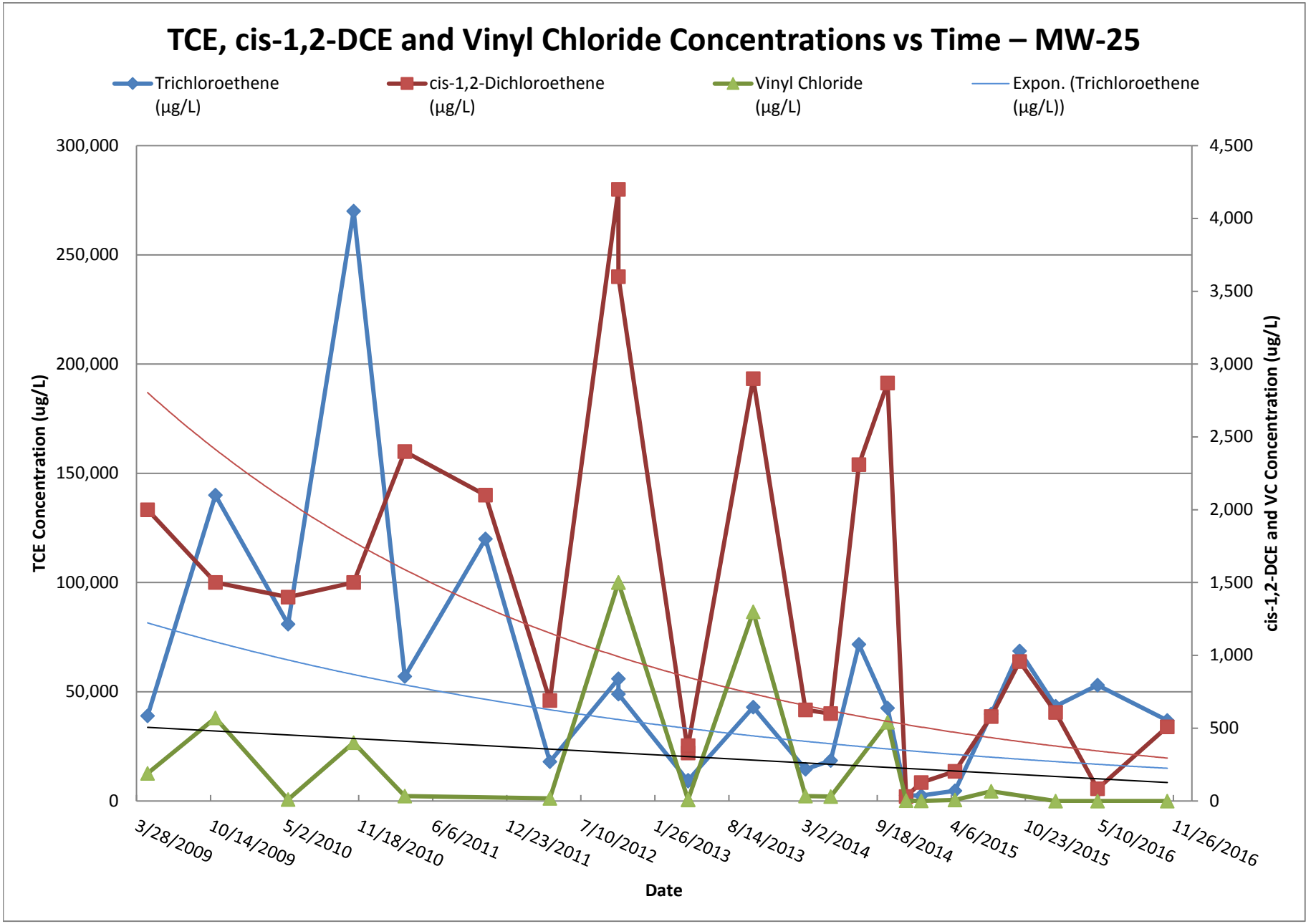


Figure 5B
Whirlpool Facility
Fort Smith, Arkansas

RAMBOLL ENVIRON

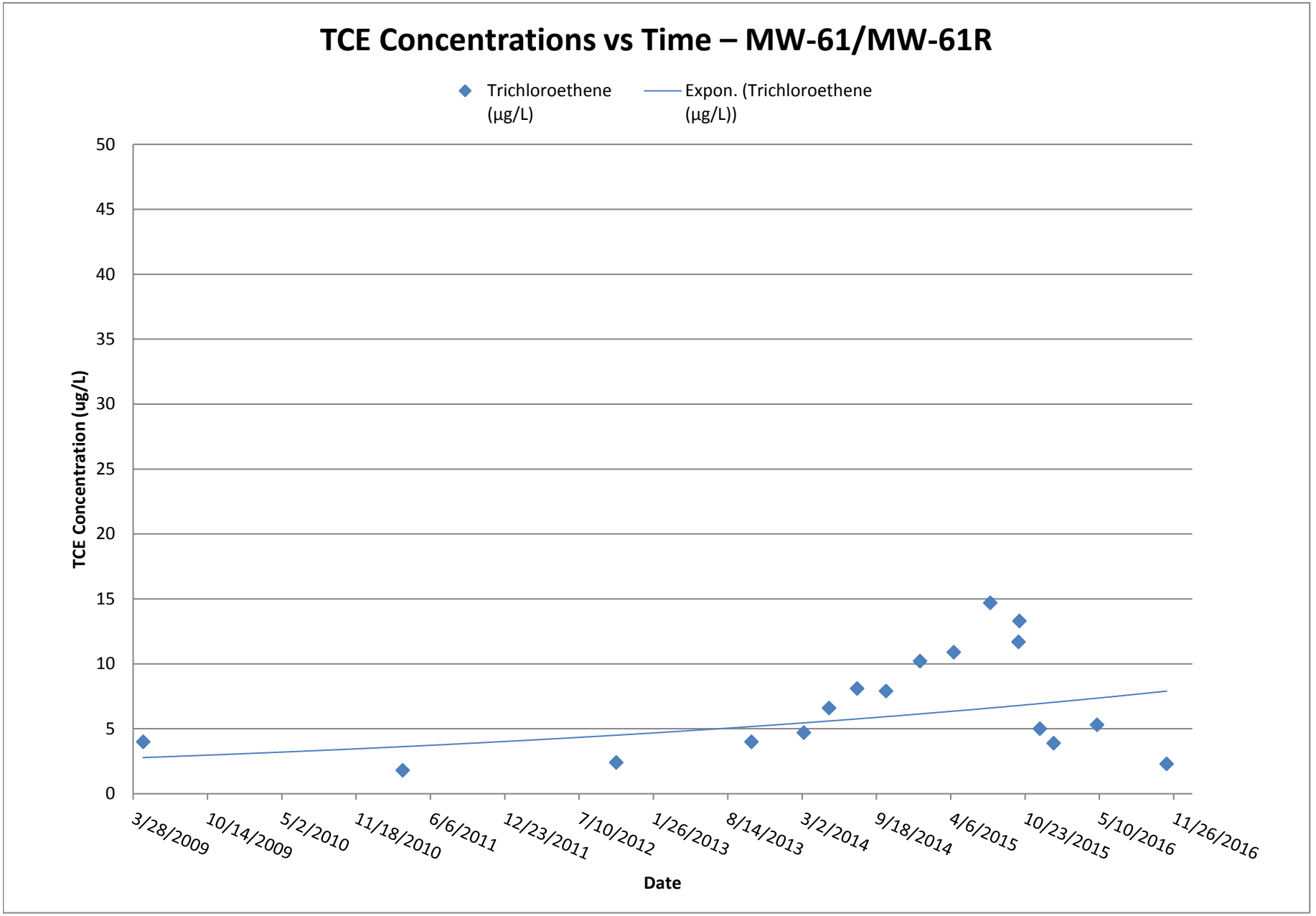


Figure 6
Whirlpool Facility
Fort Smith, Arkansas

RAMBOLL ENVIRON



RAMBOLL ENVIRON

DRAFTED BY: FK | DATE: 11/24/2015

ISCR PILOT
PRB TREATMENT ZONES

Whirlpool Facility - Fort Smith, Arkansas

Figure 7

PROJECT: 3437500G

Appendix A

Annual 2016 Sampling Event Calibration Logs

Whirlpool Ft. Smith Field Equipment Calibration Checklist

Date: 11-7-2016

Calibrated by: JMP

Turn on YSI. Note time in DO section Line 1.

Specific Conductance calibration (should take *at least* 1.5 minutes): **Lot #:** 16H058 **Exp:** 08/31/2017

1. Pour conductivity standard into calibration cup and immerse sensor.
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in specific conductance. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.

ORP calibration (should take *at least* 1.5 minutes): **Lot #:** 9674 **Exp:** 01/31/2021

1. Pour ORP (Zobell) standard into calibration cup and immerse sensor.
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in ORP. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.

3-Point pH calibration (should take *at least* 4.5 minutes):

1. Pour pH 7.0 standard into the calibration cup and immerse pH sensor. **Lot #** 16E833 **Exp:** 05/31/2018
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in pH. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.

5. Pour pH 4.0 standard into the calibration cup and immerse pH sensor. **Lot #** 16G204 **Exp:** 07/31/2018
6. Allow *1 minute* for temperature stabilization.
7. Press "calibrate" after *30 seconds* of no significant change in pH. Note standard below.
8. Discard used calibration standard, and rinse calibration cup and probes with DI water.

9. Pour pH 10.0 standard into the calibration cup and immerse pH sensor. **Lot #** 16G109 **Exp:** 07/31/2018
10. Allow *1 minute* for temperature stabilization.
11. Press "calibrate" after *30 seconds* of no significant change in pH. Note below
12. Discard used calibration standard, and rinse calibration cup and probes with DI water.

Dissolved Oxygen (% DO) calibration (should take *at least* 10 minutes):

1224 +10=1234

1. Ensure unit has been on for at least 10 minutes: Initial time: 1115 + 10min = 1125
2. Enter the local barometric pressure.
   (Note: to convert from inches (common on a weather app or forecast) to mmHg, multiply by 25.4, then to correct to Ft. Smith's altitude, subtract 15.169 mmHg.)
   30.20 in. x 25.4 = 767.08 mmHg - 15.169 = 751.911 mmHg
3. Place ~3mm of DI water in the bottom of the calibration cup.
4. Lightly screw on the calibration cup (only 1 or 2 threads!)
5. Allow *10 minutes* for the air in the cup to become water-saturated and temp to stabilize.
6. Press "calibrate" after *30 seconds* of no significant change in DO. Note below.
7. Discard used DI water, and rinse calibration cup and probes with DI water.

Turbidity calibration:

1. Select "measure" on the main menu, then "Turbidity – With Blank"
2. Scan a sample using the 0.0 NTU Blank solution. "Scan Blank"
3. Scan a sample using the 10 NTU standard. "Scan Sample"
4. Select "Calibrate," then use the arrow buttons to adjust the value to the standard (10.0 NTU).

Field Notebook calibration entry:

YSI – Serial Number: 16179

1. Specific Conductance: 1414 µS/cm
2. ORP: 240.2
3. pH:
   - Point 1: 3.95
   - Point 2: 7.01
   - Point 3: 10.03
4. DO: ~~98.0~~ 9.14 mg/L

Turbidity Meter Model/Serial Number:

Whirlpool Ft. Smith Field Equipment Calibration Checklist

Date: 11/7/16 11:30

Calibrated by: NR

Turn on YSI. Note time in DO section Line 1.

Specific Conductance calibration (should take *at least* 1.5 minutes): **Lot #:** GGH058 **Exp:** 8/31/17

1. Pour conductivity standard into calibration cup and immerse sensor.
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in specific conductance. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.

ORP calibration (should take *at least* 1.5 minutes): **Lot #:** 9674 **Exp:** 1/31/21

1. Pour ORP (Zobell) standard into calibration cup and immerse sensor.
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in ORP. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.

3-Point pH calibration (should take *at least* 4.5 minutes):

1. Pour pH 7.0 standard into the calibration cup and immerse pH sensor. **Lot #** GGE833 **Exp:** 5/31/18
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in pH. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.
5. Pour pH 4.0 standard into the calibration cup and immerse pH sensor. **Lot #** GGG264 **Exp:** 7/31/18
6. Allow *1 minute* for temperature stabilization.
7. Press "calibrate" after *30 seconds* of no significant change in pH. Note standard below.
8. Discard used calibration standard, and rinse calibration cup and probes with DI water.
9. Pour pH 10.0 standard into the calibration cup and immerse pH sensor. **Lot #** GGG109 **Exp:** 7/31/18
10. Allow *1 minute* for temperature stabilization.
11. Press "calibrate" after *30 seconds* of no significant change in pH. Note below
12. Discard used calibration standard, and rinse calibration cup and probes with DI water.

Dissolved Oxygen (% DO) calibration (should take *at least* 10 minutes):

1. Ensure unit has been on for at least 10 minutes: Initial time: 11:30 + 10min = 11:40
2. Enter the local barometric pressure.
   (Note: to convert from inches (common on a weather app or forecast) to mmHg, multiply by 25.4, then to correct to Ft. Smith's altitude, subtract 15.169 mmHg.)
   30.26 in. x 25.4 = 769.08 mmHg - 15.169 = 753.911 mmHg
3. Place ~3mm of DI water in the bottom of the calibration cup.
4. Lightly screw on the calibration cup (only 1 or 2 threads!)
5. Allow *10 minutes* for the air in the cup to become water-saturated and temp to stabilize.
6. Press "calibrate" after *30 seconds* of no significant change in DO. Note below.
7. Discard used DI water, and rinse calibration cup and probes with DI water.

Turbidity calibration:

1. Select "measure" on the main menu, then "Turbidity – With Blank"
2. Scan a sample using the 0.0 NTU Blank solution. "Scan Blank"
3. Scan a sample using the 10 NTU standard. "Scan Sample"
4. Select "Calibrate," then use the arrow buttons to adjust the value to the standard (10.0 NTU).

Field Notebook calibration entry:
YSI – Serial Number: 13E104132

1. Specific Conductance: 1.413 mS/cm
2. ORP: 240 mV
3. pH:
   - Point 1: 7.00
   - Point 2: 4.00
   - Point 3: 10.02
4. DO: 98.9 %

Turbidity Meter Model/Serial Number: FA0140

Whirlpool Ft. Smith Field Equipment Calibration Checklist

Date: 11-7-17

Calibrated by: Mike Rawitch

Turn on YSI. Note time in DO section Line 1.

Specific Conductance calibration (should take *at least* 1.5 minutes): **Lot #:** 6GH060 **Exp:** 8/31/17

1. Pour conductivity standard into calibration cup and immerse sensor.
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in specific conductance. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.

ORP calibration (should take *at least* 1.5 minutes): **Lot #:** 8832 **Exp:** 04/2020

1. Pour ORP (Zobell) standard into calibration cup and immerse sensor.
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in ORP. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.

3-Point pH calibration (should take *at least* 4.5 minutes):

1. Pour pH 7.0 standard into the calibration cup and immerse pH sensor. **Lot #** 5AC488 **Exp:** 3/31/17
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in pH. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.
5. Pour pH 4.0 standard into the calibration cup and immerse pH sensor. **Lot #** 5AC304 **Exp:** 3/17
6. Allow *1 minute* for temperature stabilization.
7. Press "calibrate" after *30 seconds* of no significant change in pH. Note standard below.
8. Discard used calibration standard, and rinse calibration cup and probes with DI water.
9. Pour pH 10.0 standard into the calibration cup and immerse pH sensor. **Lot #** 5AA164 **Exp:** 1/17
10. Allow *1 minute* for temperature stabilization.
11. Press "calibrate" after *30 seconds* of no significant change in pH. Note below
12. Discard used calibration standard, and rinse calibration cup and probes with DI water.

Dissolved Oxygen (% DO) calibration (should take *at least* 10 minutes):

1. Ensure unit has been on for at least 10 minutes: Initial time: 1112 + 10min = 1122
2. Enter the local barometric pressure.
   (Note: to convert from inches (common on a weather app or forecast) to mmHg, multiply by 25.4, then to correct to Ft. Smith's altitude, subtract 15.169 mmHg.)
   30.20 in. x 25.4 = 767.08 mmHg - 15.169 = 751.911 mmHg
3. Place ~3mm of DI water in the bottom of the calibration cup.
4. Lightly screw on the calibration cup (only 1 or 2 threads!)
5. Allow *10 minutes* for the air in the cup to become water-saturated and temp to stabilize.
6. Press "calibrate" after *30 seconds* of no significant change in DO. Note below.
7. Discard used DI water, and rinse calibration cup and probes with DI water.

Turbidity calibration:

1. Select "measure" on the main menu, then "Turbidity – With Blank"
2. Scan a sample using the 0.0 NTU Blank solution. "Scan Blank"
3. Scan a sample using the 10 NTU standard. "Scan Sample"
4. Select "Calibrate," then use the arrow buttons to adjust the value to the standard (10.0 NTU).

Field Notebook calibration entry:

YSI – Serial Number:

1. Specific Conductance: 1.341
2. ORP: 240.0
3. pH:
   - Point 1: 6.88
   - Point 2: 4.00
   - Point 3: 10.00
4. DO: 98.9

Turbidity Meter Model/Serial Number: Model 2020 we SN= 1864 -0412

Whirlpool Ft. Smith Field Equipment Calibration Checklist

Date: 11/7/16

Calibrated by: H. Ahlers

Turn on YSI. Note time in DO section Line 1.

Specific Conductance calibration (should take *at least* 1.5 minutes): **Lot #:** 6GH058 **Exp:** 8/31/17

1. Pour conductivity standard into calibration cup and immerse sensor.
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in specific conductance. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.

ORP calibration (should take *at least* 1.5 minutes): **Lot #:** 9674 **Exp:** 1/31/21

1. Pour ORP (Zobell) standard into calibration cup and immerse sensor.
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in ORP. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.

3-Point pH calibration (should take *at least* 4.5 minutes):

1. Pour pH 7.0 standard into the calibration cup and immerse pH sensor. **Lot #** 6GE833 **Exp:** 5/01/18
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in pH. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.
5. Pour pH 4.0 standard into the calibration cup and immerse pH sensor. **Lot #** 6GG264 **Exp:** 7/31/18
6. Allow *1 minute* for temperature stabilization.
7. Press "calibrate" after *30 seconds* of no significant change in pH. Note standard below.
8. Discard used calibration standard, and rinse calibration cup and probes with DI water.
9. Pour pH 10.0 standard into the calibration cup and immerse pH sensor. **Lot #** 6GG109 **Exp:** 7/31/18
10. Allow *1 minute* for temperature stabilization.
11. Press "calibrate" after *30 seconds* of no significant change in pH. Note below
12. Discard used calibration standard, and rinse calibration cup and probes with DI water.

Dissolved Oxygen (% DO) calibration (should take *at least* 10 minutes):

1. Ensure unit has been on for at least 10 minutes: Initial time: 1132 + 10min = 1142
2. Enter the local barometric pressure.
   (Note: to convert from inches (common on a weather app or forecast) to mmHg, multiply by 25.4, then to correct to Ft. Smith's altitude, subtract 15.169 mmHg.)
   30.20 in. x 25.4 = 767.08 mmHg - 15.169 = 751.911 mmHg
3. Place ~3mm of DI water in the bottom of the calibration cup.
4. Lightly screw on the calibration cup (only 1 or 2 threads!)
5. Allow *10 minutes* for the air in the cup to become water-saturated and temp to stabilize.
6. Press "calibrate" after *30 seconds* of no significant change in DO. Note below.
7. Discard used DI water, and rinse calibration cup and probes with DI water.

Turbidity calibration:

1. Select "measure" on the main menu, then "Turbidity – With Blank"
2. Scan a sample using the 0.0 NTU Blank solution. "Scan Blank"
3. Scan a sample using the 10 NTU standard. "Scan Sample"
4. Select "Calibrate," then use the arrow buttons to adjust the value to the standard (10.0 NTU).

Field Notebook calibration entry:
YSI – Serial Number: 15K101826

1. Specific Conductance: 1.413
2. ORP: 240.0
3. pH:
   - Point 1: 7.00
   - Point 2: 4.00
   - Point 3: 10.02
4. DO: 99.0 %

Turbidity Meter Model/Serial Number: 5128 – 5014

Whirlpool Ft. Smith Field Equipment Calibration Checklist

Date: 11/8/2016

Calibrated by: JMP

Turn on YSI. Note time in DO section Line 1.

Specific Conductance calibration (should take *at least* 1.5 minutes): **Lot #:** 16H058 **Exp:** 08/31/2017

1. Pour conductivity standard into calibration cup and immerse sensor.
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in specific conductance. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.

ORP calibration (should take *at least* 1.5 minutes): **Lot #:** 9674 **Exp:** 01/31/2021

1. Pour ORP (Zobell) standard into calibration cup and immerse sensor.
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in ORP. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.

3-Point pH calibration (should take *at least* 4.5 minutes):

1. Pour pH 7.0 standard into the calibration cup and immerse pH sensor. **Lot #** 16H833 **Exp:** 05/31/2018
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in pH. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.
5. Pour pH 4.0 standard into the calibration cup and immerse pH sensor. **Lot #** 16H6264 **Exp:** 07/31/2018
6. Allow *1 minute* for temperature stabilization.
7. Press "calibrate" after *30 seconds* of no significant change in pH. Note standard below.
8. Discard used calibration standard, and rinse calibration cup and probes with DI water.
9. Pour pH 10.0 standard into the calibration cup and immerse pH sensor. **Lot #** 16H6109 **Exp:** 07/31/2018
10. Allow *1 minute* for temperature stabilization.
11. Press "calibrate" after *30 seconds* of no significant change in pH. Note below
12. Discard used calibration standard, and rinse calibration cup and probes with DI water.

Dissolved Oxygen (% DO) calibration (should take *at least* 10 minutes):

1. Ensure unit has been on for at least 10 minutes: Initial time: 0715 + 10min = 0725
2. Enter the local barometric pressure.
   (Note: to convert from inches (common on a weather app or forecast) to mmHg, multiply by 25.4, then to correct to Ft. Smith's altitude, subtract 15.169 mmHg.)
   30.23 in. x 25.4 = 767.842 mmHg - 15.169 = 752.673 mmHg
3. Place ~3mm of DI water in the bottom of the calibration cup.
4. Lightly screw on the calibration cup (only 1 or 2 threads!)
5. Allow *10 minutes* for the air in the cup to become water-saturated and temp to stabilize.
6. Press "calibrate" after *30 seconds* of no significant change in DO. Note below.
7. Discard used DI water, and rinse calibration cup and probes with DI water.

Turbidity calibration:

1. Select "measure" on the main menu, then "Turbidity – With Blank"
2. Scan a sample using the 0.0 NTU Blank solution. "Scan Blank"
3. Scan a sample using the 10 NTU standard. "Scan Sample"
4. Select "Calibrate," then use the arrow buttons to adjust the value to the standard (10.0 NTU).

Field Notebook calibration entry:

YSI – Serial Number: 13D101777

1. Specific Conductance: 1.421
2. ORP: 240.4
3. pH:
   - Point 1: 7.00
   - Point 2: 4.00
   - Point 3: ~~10.00~~ 10.02
4. DO: 9.66 mg/L

Turbidity Meter Model/Serial Number:

Whirlpool Ft. Smith Field Equipment Calibration Checklist

Date: 11/8/16 ~~184~~ NZ 0640

Calibrated by: NZ

Turn on YSI. Note time in DO section Line 1.

Specific Conductance calibration (should take *at least* 1.5 minutes): **Lot #:** 6GH058 **Exp:** 8/31/17

1. Pour conductivity standard into calibration cup and immerse sensor.
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in specific conductance. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.

ORP calibration (should take *at least* 1.5 minutes): **Lot #:** 9674 **Exp:** 1/31/21

1. Pour ORP (Zobell) standard into calibration cup and immerse sensor.
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in ORP. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.

3-Point pH calibration (should take *at least* 4.5 minutes):

1. Pour pH 7.0 standard into the calibration cup and immerse pH sensor. **Lot #** 6GE833 **Exp:** 5/31/18
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in pH. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.

5. Pour pH 4.0 standard into the calibration cup and immerse pH sensor. **Lot #** 6GG264 **Exp:** 7/31/18
6. Allow *1 minute* for temperature stabilization.
7. Press "calibrate" after *30 seconds* of no significant change in pH. Note standard below.
8. Discard used calibration standard, and rinse calibration cup and probes with DI water.

9. Pour pH 10.0 standard into the calibration cup and immerse pH sensor. **Lot #** 6GG109 **Exp:** 7/31/18
10. Allow *1 minute* for temperature stabilization.
11. Press "calibrate" after *30 seconds* of no significant change in pH. Note below
12. Discard used calibration standard, and rinse calibration cup and probes with DI water.

Dissolved Oxygen (% DO) calibration (should take *at least* 10 minutes):

1. Ensure unit has been on for at least 10 minutes: Initial time: 0640 + 10min = 0650
2. Enter the local barometric pressure.
   (Note: to convert from inches (common on a weather app or forecast) to mmHg, multiply by 25.4, then to correct to Ft. Smith's altitude, subtract 15.169 mmHg.)
   30.23 in. x 25.4 = 767.842 mmHg - 15.169 = 752.673 mmHg
3. Place ~3mm of DI water in the bottom of the calibration cup.
4. Lightly screw on the calibration cup (only 1 or 2 threads!)
5. Allow *10 minutes* for the air in the cup to become water-saturated and temp to stabilize.
6. Press "calibrate" after *30 seconds* of no significant change in DO. Note below.
7. Discard used DI water, and rinse calibration cup and probes with DI water.

Turbidity calibration:

1. Select "measure" on the main menu, then "Turbidity – With Blank"
2. Scan a sample using the 0.0 NTU Blank solution. "Scan Blank"
3. Scan a sample using the 10 NTU standard. "Scan Sample"
4. Select "Calibrate," then use the arrow buttons to adjust the value to the standard (10.0 NTU).

Field Notebook calibration entry:

YSI – Serial Number: 13E104132

1. Specific Conductance: 1413 µS/cm
2. ORP: 240.0 mV
3. pH:
   - Point 1: 7.00
   - Point 2: 4.00
   - Point 3: 10.02
4. DO: 99.0 %

Turbidity Meter Model/Serial Number: FA01400

Whirlpool Ft. Smith Field Equipment Calibration Checklist

Date: 11-8-16

Calibrated by: Mike Rawitch

Turn on YSI. Note time in DO section Line 1.

Specific Conductance calibration (should take *at least* 1.5 minutes): **Lot #:** BGH1060 **Exp:** 08/31/2017

1. Pour conductivity standard into calibration cup and immerse sensor.
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in specific conductance. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.

ORP calibration (should take *at least* 1.5 minutes): **Lot #:** 8832 **Exp:** 04/2020

1. Pour ORP (Zobell) standard into calibration cup and immerse sensor.
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in ORP. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.

3-Point pH calibration (should take *at least* 4.5 minutes):

1. Pour pH 7.0 standard into the calibration cup and immerse pH sensor. **Lot #** 5AC488 **Exp:** 3/31/17
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in pH. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.
5. Pour pH 4.0 standard into the calibration cup and immerse pH sensor. **Lot #** 5AC304 **Exp:** Mar/17
6. Allow *1 minute* for temperature stabilization.
7. Press "calibrate" after *30 seconds* of no significant change in pH. Note standard below.
8. Discard used calibration standard, and rinse calibration cup and probes with DI water.
9. Pour pH 10.0 standard into the calibration cup and immerse pH sensor. **Lot #** 5AA164 **Exp:** Jan/17
10. Allow *1 minute* for temperature stabilization.
11. Press "calibrate" after *30 seconds* of no significant change in pH. Note below
12. Discard used calibration standard, and rinse calibration cup and probes with DI water.

Dissolved Oxygen (% DO) calibration (should take *at least* 10 minutes):

1. Ensure unit has been on for at least 10 minutes: Initial time: 0651 + 10min = 0701
2. Enter the local barometric pressure.
   (Note: to convert from inches (common on a weather app or forecast) to mmHg, multiply by 25.4, then to correct to Ft. Smith's altitude, subtract 15.169 mmHg.)
   30.23 in. x 25.4 = 767.842 mmHg - 15.169 = 752.673 mmHg
3. Place ~3mm of DI water in the bottom of the calibration cup.
4. Lightly screw on the calibration cup (only 1 or 2 threads!)
5. Allow *10 minutes* for the air in the cup to become water-saturated and temp to stabilize.
6. Press "calibrate" after *30 seconds* of no significant change in DO. Note below.
7. Discard used DI water, and rinse calibration cup and probes with DI water.

Turbidity calibration:

1. Select "measure" on the main menu, then "Turbidity – With Blank"
2. Scan a sample using the 0.0 NTU Blank solution. "Scan Blank"
3. Scan a sample using the 10 NTU standard. "Scan Sample"
4. Select "Calibrate," then use the arrow buttons to adjust the value to the standard (10.0 NTU).

Field Notebook calibration entry:
YSI – Serial Number:

1. Specific Conductance: 1413 uS/cm
2. ORP: 240.2
3. pH:
   - Point 1: 7.00
   - Point 2: 4.00
   - Point 3: 10.01
4. DO: 9.64 YSI 556 MPS

Turbidity Meter Model/Serial Number: 14F 100295

Whirlpool Ft. Smith Field Equipment Calibration Checklist

Date: 11/8/16

Calibrated by: H. Anders

Turn on YSI. Note time in DO section Line 1.

Specific Conductance calibration (should take *at least* 1.5 minutes): **Lot #:** 6GH058 **Exp:** 8/31/17

1. Pour conductivity standard into calibration cup and immerse sensor.
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in specific conductance. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.

ORP calibration (should take *at least* 1.5 minutes): **Lot #:** 6GE833 **Exp:** 5/61/18

1. Pour ORP (Zobell) standard into calibration cup and immerse sensor.
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in ORP. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.

3-Point pH calibration (should take *at least* 4.5 minutes):

1. Pour pH 7.0 standard into the calibration cup and immerse pH sensor. **Lot #** 6GG264 **Exp:** 7/31/18
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in pH. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.
5. Pour pH 4.0 standard into the calibration cup and immerse pH sensor. **Lot #** 6GG109 **Exp:** 7/31/18
6. Allow *1 minute* for temperature stabilization.
7. Press "calibrate" after *30 seconds* of no significant change in pH. Note standard below.
8. Discard used calibration standard, and rinse calibration cup and probes with DI water.
9. Pour pH 10.0 standard into the calibration cup and immerse pH sensor. **Lot #** 9674 **Exp:** 1/31/21
10. Allow *1 minute* for temperature stabilization.
11. Press "calibrate" after *30 seconds* of no significant change in pH. Note below
12. Discard used calibration standard, and rinse calibration cup and probes with DI water.

Dissolved Oxygen (% DO) calibration (should take *at least* 10 minutes):

1. Ensure unit has been on for at least 10 minutes: Initial time: 0707 + 10min = 0717
2. Enter the local barometric pressure.
   (Note: to convert from inches (common on a weather app or forecast) to mmHg, multiply by 25.4, then to correct to Ft. Smith's altitude, subtract 15.169 mmHg.)
   30.23 in. x 25.4 = 767.842 mmHg - 15.169 = 752.673mmHg
3. Place ~3mm of DI water in the bottom of the calibration cup.
4. Lightly screw on the calibration cup (only 1 or 2 threads!)
5. Allow *10 minutes* for the air in the cup to become water-saturated and temp to stabilize.
6. Press "calibrate" after *30 seconds* of no significant change in DO. Note below.
7. Discard used DI water, and rinse calibration cup and probes with DI water.

Turbidity calibration:

1. Select "measure" on the main menu, then "Turbidity – With Blank"
2. Scan a sample using the 0.0 NTU Blank solution. "Scan Blank"
3. Scan a sample using the 10 NTU standard. "Scan Sample"
4. Select "Calibrate," then use the arrow buttons to adjust the value to the standard (10.0 NTU).

Field Notebook calibration entry:

YSI – Serial Number: 15K101326

1. Specific Conductance: 1,413 µS/cm
2. ORP: 240.1
3. pH:
   - Point 1: 7.00
   - Point 2: 4.00
   - Point 3: 10.02
4. DO: 99.1%

Turbidity Meter Model/Serial Number: 5128-5014

Whirlpool Ft. Smith Field Equipment Calibration Checklist

Date: 11/8/16

Calibrated by: Victoria Sigler

Turn on YSI. Note time on line 38!

Specific Conductance calibration (should take *at least* 1.5 minutes): **Lot #:** 16G11058 **Exp:** 8/31/17

1. Pour conductivity standard into calibration cup and immerse sensor.
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in specific conductance. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.

ORP calibration (should take *at least* 1.5 minutes): **Lot #:** ~~SAA0M2~~ 6G138 **Exp:** ~~H2017~~ 5/31/18

1. Pour ORP (Zobell) standard into calibration cup and immerse sensor.
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in ORP. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.

3-Point pH calibration (should take *at least* 4.5 minutes):

1. Pour pH 7.0 standard into the calibration cup and immerse pH sensor. **Lot #** SAA02 **Exp:** 1/2017
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in pH. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.
5. Pour pH 4.0 standard into the calibration cup and immerse pH sensor. **Lot #** 6GG264 **Exp:** 7/31/18
6. Allow *1 minute* for temperature stabilization.
7. Press "calibrate" after *30 seconds* of no significant change in pH. Note standard below.
8. Discard used calibration standard, and rinse calibration cup and probes with DI water.
9. Pour pH 10.0 standard into the calibration cup and immerse pH sensor. **Lot #** SABI57 **Exp:** Feb 17
10. Allow *1 minute* for temperature stabilization.
11. Press "calibrate" after *30 seconds* of no significant change in pH. Note below
12. Discard used calibration standard, and rinse calibration cup and probes with DI water.

Dissolved Oxygen (% DO) calibration (should take *at least* 10 minutes):

1. Ensure unit has been on for at least 10 minutes: Initial time: 0653 + 10min = 0703
2. Enter the local barometric pressure.
   (Note: to convert from inches (common on a weather app or forecast) to mmHg, multiply by 25.4, then to correct to Ft. Smith's altitude, subtract 15.169 mmHg.)
   30.22 in. x 25.4 = 767.59 mmHg - 15.169 = 752.419 mmHg
3. Place ~3mm of DI water in the bottom of the calibration cup.
4. Lightly screw on the calibration cup (only 1 or 2 threads!)
5. Allow *10 minutes* for the air in the cup to become water-saturated and temp to stabilize.
6. Press "calibrate" after *30 seconds* of no significant change in DO. Note below.
7. Discard used DI water, and rinse calibration cup and probes with DI water.

Turbidity calibration:

1. Select "measure" on the main menu, then "Turbidity – With Blank"
2. Scan a sample using the 0.0 NTU Blank solution. "Scan Blank"
3. Scan a sample using the 10 NTU standard. "Scan Sample"
4. Select "Calibrate," then use the arrow buttons to adjust the value to the standard (10.0 NTU).

Field Notebook calibration entry:

YSI – Serial Number:

1. Specific Conductance: 1327
2. ORP: 246.0
3. pH:
   - Point 1: 6.95
   - Point 2: 4.0
   - Point 3: 10.15
4. DO: [illegible]

Turbidity Meter Model/Serial Number: 17278

Whirlpool Ft. Smith Field Equipment Calibration Checklist

Date: 9/9/2016

Calibrated by: WES

Turn on YSI. Note time in DO section Line 1.

Specific Conductance calibration (should take *at least* 1.5 minutes): **Lot #:** 6GH058 **Exp:** Aug 31 2017

1. Pour conductivity standard into calibration cup and immerse sensor.
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in specific conductance. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.

ORP calibration (should take *at least* 1.5 minutes): **Lot #:** 9674 **Exp:** 1/31/21

1. Pour ORP (Zobell) standard into calibration cup and immerse sensor.
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in ORP. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.

3-Point pH calibration (should take *at least* 4.5 minutes):

1. Pour pH 7.0 standard into the calibration cup and immerse pH sensor. **Lot #** 6G6108 **Exp:** 7/31/18
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in pH. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.
5. Pour pH 4.0 standard into the calibration cup and immerse pH sensor. **Lot #** 9674 **Exp:** 1/31/2021
6. Allow *1 minute* for temperature stabilization.
7. Press "calibrate" after *30 seconds* of no significant change in pH. Note standard below.
8. Discard used calibration standard, and rinse calibration cup and probes with DI water.
9. Pour pH 10.0 standard into the calibration cup and immerse pH sensor. **Lot #** 5AA23 **Exp:** Jan/2017
10. Allow *1 minute* for temperature stabilization.
11. Press "calibrate" after *30 seconds* of no significant change in pH. Note below
12. Discard used calibration standard, and rinse calibration cup and probes with DI water.

Dissolved Oxygen (% DO) calibration (should take *at least* 10 minutes):

1. Ensure unit has been on for at least 10 minutes: Initial time: 0650 + 10min 0700
2. Enter the local barometric pressure.
   (Note: to convert from inches (common on a weather app or forecast) to mmHg, multiply by 25.4, then to correct to Ft. Smith's altitude, subtract 15.169 mmHg.)
   30.29 in. x 25.4 = 769.366 mmHg - 15.169 = 754.197 mmHg
3. Place ~3mm of DI water in the bottom of the calibration cup.
4. Lightly screw on the calibration cup (only 1 or 2 threads!)
5. Allow *10 minutes* for the air in the cup to become water-saturated and temp to stabilize.
6. Press "calibrate" after *30 seconds* of no significant change in DO. Note below.
7. Discard used DI water, and rinse calibration cup and probes with DI water.

Turbidity calibration:

1. Select "measure" on the main menu, then "Turbidity – With Blank"
2. Scan a sample using the 0.0 NTU Blank solution. "Scan Blank"
3. Scan a sample using the 10 NTU standard. "Scan Sample"
4. Select "Calibrate," then use the arrow buttons to adjust the value to the standard (10.0 NTU).

Field Notebook calibration entry:

YSI – Serial Number:

1. Specific Conductance: 1.413 ms/cm
2. ORP: 240 mV
3. pH:
   - Point 1: 10.00
   - Point 2: 7.00
   - Point 3: 4.03
4. DO: 99.2 %

Turbidity Meter Model/Serial Number:

Whirlpool Ft. Smith Field Equipment Calibration Checklist

Date: 11/9/16 0650

Calibrated by: NZ

Turn on YSI. Note time in DO section Line 1.

Specific Conductance calibration (should take *at least* 1.5 minutes): **Lot #:** 6GH058 **Exp:** 8/31/17

1. Pour conductivity standard into calibration cup and immerse sensor.
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in specific conductance. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.

ORP calibration (should take *at least* 1.5 minutes): **Lot #:** 9674 **Exp:** 1/31/21

1. Pour ORP (Zobell) standard into calibration cup and immerse sensor.
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in ORP. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.

3-Point pH calibration (should take *at least* 4.5 minutes):

1. Pour pH 7.0 standard into the calibration cup and immerse pH sensor. **Lot #** 6GE833 **Exp:** 5/31/18
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in pH. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.
5. Pour pH 4.0 standard into the calibration cup and immerse pH sensor. **Lot #** 6GG24 **Exp:** 7/31/18
6. Allow *1 minute* for temperature stabilization.
7. Press "calibrate" after *30 seconds* of no significant change in pH. Note standard below.
8. Discard used calibration standard, and rinse calibration cup and probes with DI water.
9. Pour pH 10.0 standard into the calibration cup and immerse pH sensor. **Lot #** 6GG109 **Exp:** 7/31/18
10. Allow *1 minute* for temperature stabilization.
11. Press "calibrate" after *30 seconds* of no significant change in pH. Note below
12. Discard used calibration standard, and rinse calibration cup and probes with DI water.

Dissolved Oxygen (% DO) calibration (should take *at least* 10 minutes):

1. Ensure unit has been on for at least 10 minutes: Initial time: 0650 + 10min = 0700
2. Enter the local barometric pressure.
   (Note: to convert from inches (common on a weather app or forecast) to mmHg, multiply by 25.4, then to correct to Ft. Smith's altitude, subtract 15.169 mmHg.)
   30.29 in. x 25.4 = 769.366 mmHg - 15.169 = 754.197 mmHg
3. Place ~3mm of DI water in the bottom of the calibration cup.
4. Lightly screw on the calibration cup (only 1 or 2 threads!)
5. Allow *10 minutes* for the air in the cup to become water-saturated and temp to stabilize.
6. Press "calibrate" after *30 seconds* of no significant change in DO. Note below.
7. Discard used DI water, and rinse calibration cup and probes with DI water.

Turbidity calibration:

1. Select "measure" on the main menu, then "Turbidity – With Blank"
2. Scan a sample using the 0.0 NTU Blank solution. "Scan Blank"
3. Scan a sample using the 10 NTU standard. "Scan Sample"
4. Select "Calibrate," then use the arrow buttons to adjust the value to the standard (10.0 NTU).

Field Notebook calibration entry:

YSI – Serial Number: 13E104132

1. Specific Conductance: 1413 ms/cm
2. ORP: 240 mV
3. pH:
   - Point 1: ~~6.95~~ 7.00
   - Point 2: 4.00
   - Point 3: 10.02
4. DO: 99.3 %

Turbidity Meter Model/Serial Number: FA01400

Whirlpool Ft. Smith Field Equipment Calibration Checklist

Date: 11/9/2016

Calibrated by: JMP

Turn on YSI. Note time in DO section Line 1.

Specific Conductance calibration (should take *at least* 1.5 minutes): **Lot #:** 08/31/2017 **Exp:** 16H058

1. Pour conductivity standard into calibration cup and immerse sensor.
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in specific conductance. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.

ORP calibration (should take *at least* 1.5 minutes): **Lot #:** 9674 **Exp:** 1/31/2021

1. Pour ORP (Zobell) standard into calibration cup and immerse sensor.
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in ORP. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.

3-Point pH calibration (should take *at least* 4.5 minutes):

1. Pour pH 7.0 standard into the calibration cup and immerse pH sensor. **Lot #** 16E833 **Exp:** 5/31/2018
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in pH. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.
5. Pour pH 4.0 standard into the calibration cup and immerse pH sensor. **Lot #** 5AA263 **Exp:** 1/2017
6. Allow *1 minute* for temperature stabilization.
7. Press "calibrate" after *30 seconds* of no significant change in pH. Note standard below.
8. Discard used calibration standard, and rinse calibration cup and probes with DI water.
9. Pour pH 10.0 standard into the calibration cup and immerse pH sensor. **Lot #** ~~7171~~ 16G109 **Exp:** 7/31/2018
10. Allow *1 minute* for temperature stabilization.
11. Press "calibrate" after *30 seconds* of no significant change in pH. Note below
12. Discard used calibration standard, and rinse calibration cup and probes with DI water.

Dissolved Oxygen (% DO) calibration (should take *at least* 10 minutes):

1. Ensure unit has been on for at least 10 minutes: Initial time: 0724 + 10min = 0734
2. Enter the local barometric pressure.
   (Note: to convert from inches (common on a weather app or forecast) to mmHg, multiply by 25.4, then to correct to Ft. Smith's altitude, subtract 15.169 mmHg.)
   30.29 in. x 25.4 = 769.39 mmHg - 15.169 = ~~754.20~~ 769.366 mmHg
3. Place ~3mm of DI water in the bottom of the calibration cup.
4. Lightly screw on the calibration cup (only 1 or 2 threads!)
5. Allow *10 minutes* for the air in the cup to become water-saturated and temp to stabilize.
6. Press "calibrate" after *30 seconds* of no significant change in DO. Note below.
7. Discard used DI water, and rinse calibration cup and probes with DI water.

Turbidity calibration:

1. Select "measure" on the main menu, then "Turbidity – With Blank"
2. Scan a sample using the 0.0 NTU Blank solution. "Scan Blank"
3. Scan a sample using the 10 NTU standard. "Scan Sample"
4. Select "Calibrate," then use the arrow buttons to adjust the value to the standard (10.0 NTU).

Field Notebook calibration entry:
YSI – Serial Number: 13D10177

1. Specific Conductance: ~~1294~~ DP 1.233 mS/cm
2. ORP: ~~2661~~
3. pH:
   - Point 1: ~~7.05~~ DP 7.05
   - Point 2: 3.99
   - Point 3: 10.01
4. DO: ~~2404~~ 9.71 mg/L

Turbidity Meter Model/Serial Number:

RAMBOLL ENVIRON

Whirlpool Ft. Smith Field Equipment Calibration Checklist

Date: 11-9-16

Calibrated by: Mike Rawitch

Turn on YSI. Note time in DO section Line 1.

Specific Conductance calibration (should take *at least* 1.5 minutes): **Lot #:** GGH060 **Exp:** 8/31/2017

1. Pour conductivity standard into calibration cup and immerse sensor.
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in specific conductance. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.

ORP calibration (should take *at least* 1.5 minutes): **Lot #:** 8832 **Exp:** 04/2020

1. Pour ORP (Zobell) standard into calibration cup and immerse sensor.
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in ORP. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.

3-Point pH calibration (should take *at least* 4.5 minutes):

1. Pour pH 7.0 standard into the calibration cup and immerse pH sensor. **Lot #** 5AC488 **Exp:** 3/31/17
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in pH. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.
5. Pour pH 4.0 standard into the calibration cup and immerse pH sensor. **Lot #** 5AC304 **Exp:** 3/17
6. Allow *1 minute* for temperature stabilization.
7. Press "calibrate" after *30 seconds* of no significant change in pH. Note standard below.
8. Discard used calibration standard, and rinse calibration cup and probes with DI water.
9. Pour pH 10.0 standard into the calibration cup and immerse pH sensor. **Lot #** 5AA164 **Exp:** 1/17
10. Allow *1 minute* for temperature stabilization.
11. Press "calibrate" after *30 seconds* of no significant change in pH. Note below
12. Discard used calibration standard, and rinse calibration cup and probes with DI water.

Dissolved Oxygen (% DO) calibration (should take *at least* 10 minutes):

1. Ensure unit has been on for at least 10 minutes: Initial time: 0654 + 10min = 0704
2. Enter the local barometric pressure.
   (Note: to convert from inches (common on a weather app or forecast) to mmHg, multiply by 25.4, then to correct to Ft. Smith's altitude, subtract 15.169 mmHg.)
   30.29 in. x 25.4 = 763.37 mmHg - 15.169 = 754.200 mmHg
3. Place ~3mm of DI water in the bottom of the calibration cup.
4. Lightly screw on the calibration cup (only 1 or 2 threads!)
5. Allow *10 minutes* for the air in the cup to become water-saturated and temp to stabilize.
6. Press "calibrate" after *30 seconds* of no significant change in DO. Note below.
7. Discard used DI water, and rinse calibration cup and probes with DI water.

Turbidity calibration:

1. Select "measure" on the main menu, then "Turbidity – With Blank"
2. Scan a sample using the 0.0 NTU Blank solution. "Scan Blank"
3. Scan a sample using the 10 NTU standard. "Scan Sample"
4. Select "Calibrate," then use the arrow buttons to adjust the value to the standard (10.0 NTU).

Field Notebook calibration entry:

YSI – Serial Number:

1. Specific Conductance: 1413 µS/cm
2. ORP: 240.1 mV
3. pH:
   - Point 1: 7.06
   - Point 2: 4.00
   - Point 3: 10.07
4. DO: 99.4

YSI 556 MPS
145 100295

Turbidity Meter Model/Serial Number: Model 2020we SN=1864-042

Whirlpool Ft. Smith Field Equipment Calibration Checklist

Date: 11/9/16

Calibrated by: H. Anders

Turn on YSI. Note time in DO section Line 1.

Specific Conductance calibration (should take *at least* 1.5 minutes): **Lot #:** 6GH058 **Exp:** 8/31/17

1. Pour conductivity standard into calibration cup and immerse sensor.
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in specific conductance. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.

ORP calibration (should take *at least* 1.5 minutes): **Lot #:** 9674 **Exp:** 1/31/21

1. Pour ORP (Zobell) standard into calibration cup and immerse sensor.
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in ORP. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.

3-Point pH calibration (should take *at least* 4.5 minutes):

1. Pour pH 7.0 standard into the calibration cup and immerse pH sensor. **Lot #** 6GE833 **Exp:** 5/31/18
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in pH. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.
5. Pour pH 4.0 standard into the calibration cup and immerse pH sensor. **Lot #** 6GG264 **Exp:** 7/31/18
6. Allow *1 minute* for temperature stabilization.
7. Press "calibrate" after *30 seconds* of no significant change in pH. Note standard below.
8. Discard used calibration standard, and rinse calibration cup and probes with DI water.
9. Pour pH 10.0 standard into the calibration cup and immerse pH sensor. **Lot #** 6GG109 **Exp:** 7/31/18
10. Allow *1 minute* for temperature stabilization.
11. Press "calibrate" after *30 seconds* of no significant change in pH. Note below
12. Discard used calibration standard, and rinse calibration cup and probes with DI water.

Dissolved Oxygen (% DO) calibration (should take *at least* 10 minutes):

1. Ensure unit has been on for at least 10 minutes: Initial time: 0636 + 10min = 0646
2. Enter the local barometric pressure.
   (Note: to convert from inches (common on a weather app or forecast) to mmHg, multiply by 25.4, then to correct to Ft. Smith's altitude, subtract 15.169 mmHg.)
   30.30 in. x 25.4 = 769.62 mmHg - 15.169 = 754.451 mmHg
3. Place ~3mm of DI water in the bottom of the calibration cup.
4. Lightly screw on the calibration cup (only 1 or 2 threads!)
5. Allow *10 minutes* for the air in the cup to become water-saturated and temp to stabilize.
6. Press "calibrate" after *30 seconds* of no significant change in DO. Note below.
7. Discard used DI water, and rinse calibration cup and probes with DI water.

Turbidity calibration:

1. Select "measure" on the main menu, then "Turbidity – With Blank"
2. Scan a sample using the 0.0 NTU Blank solution. "Scan Blank"
3. Scan a sample using the 10 NTU standard. "Scan Sample"
4. Select "Calibrate," then use the arrow buttons to adjust the value to the standard (10.0 NTU).

Field Notebook calibration entry:

YSI – Serial Number: 15K101826

1. Specific Conductance: 1,413 µs/cm
2. ORP: 240.0
3. pH:
   - Point 1: 7.00
   - Point 2: 4.00
   - Point 3: 10.01
4. DO: 99.3%

Turbidity Meter Model/Serial Number: 5128 - 5014

Whirlpool Ft. Smith Field Equipment Calibration Checklist

Date: 11/9/16

Calibrated by: Victoria Sizelove

Turn on YSI. Note time on line 38!

Specific Conductance calibration (should take *at least* 1.5 minutes): **Lot #:** 16H058 **Exp:** 8/31/17

1. Pour conductivity standard into calibration cup and immerse sensor.
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in specific conductance. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.

ORP calibration (should take *at least* 1.5 minutes): **Lot #:** 9074 **Exp:** 1/31/21

1. Pour ORP (Zobell) standard into calibration cup and immerse sensor.
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in ORP. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.

3-Point pH calibration (should take *at least* 4.5 minutes):

1. Pour pH 7.0 standard into the calibration cup and immerse pH sensor. **Lot #** 6GE833 **Exp:** 5/31/18
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in pH. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.

5. Pour pH 4.0 standard into the calibration cup and immerse pH sensor. **Lot #** 6G42649 **Exp:** 7/31/18
6. Allow *1 minute* for temperature stabilization.
7. Press "calibrate" after *30 seconds* of no significant change in pH. Note standard below.
8. Discard used calibration standard, and rinse calibration cup and probes with DI water.

9. Pour pH 10.0 standard into the calibration cup and immerse pH sensor. **Lot #** 5AB151 **Exp:** Feb 17
10. Allow *1 minute* for temperature stabilization.
11. Press "calibrate" after *30 seconds* of no significant change in pH. Note below
12. Discard used calibration standard, and rinse calibration cup and probes with DI water.

Dissolved Oxygen (% DO) calibration (should take *at least* 10 minutes):

1. Ensure unit has been on for at least 10 minutes: Initial time: 0635 + 10min = 0645
2. Enter the local barometric pressure.
   (Note: to convert from inches (common on a weather app or forecast) to mmHg, multiply by 25.4, then to correct to Ft. Smith's altitude, subtract 15.169 mmHg.)
   30.29 in. x 25.4 = 769.37 mmHg - 15.169 = 754.20 mmHg
3. Place ~3mm of DI water in the bottom of the calibration cup.
4. Lightly screw on the calibration cup (only 1 or 2 threads!)
5. Allow *10 minutes* for the air in the cup to become water-saturated and temp to stabilize.
6. Press "calibrate" after *30 seconds* of no significant change in DO. Note below.
7. Discard used DI water, and rinse calibration cup and probes with DI water.

Turbidity calibration:

1. Select "measure" on the main menu, then "Turbidity – With Blank"
2. Scan a sample using the 0.0 NTU Blank solution. "Scan Blank"
3. Scan a sample using the 10 NTU standard. "Scan Sample"
4. Select "Calibrate," then use the arrow buttons to adjust the value to the standard (10.0 NTU).

Field Notebook calibration entry:

YSI – Serial Number:

1. Specific Conductance: 1355
2. ORP: 246.1
3. pH:
   - Point 1: ~~6.85~~ 7.01
   - Point 2: ~~4.01~~ 3.99
   - Point 3: 9.95
4. DO: 8.57

Turbidity Meter Model/Serial Number:

Whirlpool Ft. Smith Field Equipment Calibration Checklist

Date: 11-10-16

Calibrated by: Mike Rawitch

Turn on YSI. Note time in DO section Line 1.

Specific Conductance calibration (should take *at least* 1.5 minutes): **Lot #:** 6GH060 **Exp:** 8/31/2017

1. Pour conductivity standard into calibration cup and immerse sensor.
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in specific conductance. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.

ORP calibration (should take *at least* 1.5 minutes): **Lot #:** 9674 **Exp:** 1/31/2021

1. Pour ORP (Zobell) standard into calibration cup and immerse sensor.
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in ORP. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.

3-Point pH calibration (should take *at least* 4.5 minutes):

1. Pour pH 7.0 standard into the calibration cup and immerse pH sensor. **Lot #** 5AC488 **Exp:** 3/31/17
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in pH. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.
5. Pour pH 4.0 standard into the calibration cup and immerse pH sensor. **Lot #** 5AC304 **Exp:** Mar/17
6. Allow *1 minute* for temperature stabilization.
7. Press "calibrate" after *30 seconds* of no significant change in pH. Note standard below.
8. Discard used calibration standard, and rinse calibration cup and probes with DI water.
9. Pour pH 10.0 standard into the calibration cup and immerse pH sensor. **Lot #** 5AA164 **Exp:** Jan/17
10. Allow *1 minute* for temperature stabilization.
11. Press "calibrate" after *30 seconds* of no significant change in pH. Note below
12. Discard used calibration standard, and rinse calibration cup and probes with DI water.

Dissolved Oxygen (% DO) calibration (should take *at least* 10 minutes):

1. Ensure unit has been on for at least 10 minutes: Initial time: 0658 + 10min = 0708
2. Enter the local barometric pressure.
   (Note: to convert from inches (common on a weather app or forecast) to mmHg, multiply by 25.4, then to correct to Ft. Smith's altitude, subtract 15.169 mmHg.)
   30.34 in. x 25.4 = 770.36 mmHg - 15.169 = 755.467 mmHg
3. Place ~3mm of DI water in the bottom of the calibration cup.
4. Lightly screw on the calibration cup (only 1 or 2 threads!)
5. Allow *10 minutes* for the air in the cup to become water-saturated and temp to stabilize.
6. Press "calibrate" after *30 seconds* of no significant change in DO. Note below.
7. Discard used DI water, and rinse calibration cup and probes with DI water.

Turbidity calibration:

LaMotte Model 2020we 1864-0412

1. Select "measure" on the main menu, then "Turbidity – With Blank"
2. Scan a sample using the 0.0 NTU Blank solution. "Scan Blank"
3. Scan a sample using the 10 NTU standard. "Scan Sample"
4. Select "Calibrate," then use the arrow buttons to adjust the value to the standard (10.0 NTU).

Field Notebook calibration entry:

YSI – Serial Number:

1. Specific Conductance: 1413
2. ORP: 240.0
3. pH:
   - Point 1: ~~6.98~~ MJR 7.00
   - Point 2: 4.00
   - Point 3: 10.03
4. DO: 100.1%

Turbidity Meter Model/Serial Number: YSI 556 MPS 14F100295

RAMBOLL ENVIRON

Whirlpool Ft. Smith Field Equipment Calibration Checklist

Date: 11/10/16 0640

Calibrated by: NZ

Turn on YSI. Note time in DO section Line 1.

Specific Conductance calibration (should take *at least* 1.5 minutes): **Lot #:** GGH058 **Exp:** 8/31/17

1. Pour conductivity standard into calibration cup and immerse sensor.
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in specific conductance. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.

ORP calibration (should take *at least* 1.5 minutes): **Lot #:** 9674 **Exp:** 1/31/21

1. Pour ORP (Zobell) standard into calibration cup and immerse sensor.
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in ORP. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.

3-Point pH calibration (should take *at least* 4.5 minutes):

1. Pour pH 7.0 standard into the calibration cup and immerse pH sensor. **Lot #** GGE833 **Exp:** 5/31/18
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in pH. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.
5. Pour pH 4.0 standard into the calibration cup and immerse pH sensor. **Lot #** SAA263 **Exp:** 1/17
6. Allow *1 minute* for temperature stabilization.
7. Press "calibrate" after *30 seconds* of no significant change in pH. Note standard below.
8. Discard used calibration standard, and rinse calibration cup and probes with DI water.
9. Pour pH 10.0 standard into the calibration cup and immerse pH sensor. **Lot #** GGG109 **Exp:** 7/31/18
10. Allow *1 minute* for temperature stabilization.
11. Press "calibrate" after *30 seconds* of no significant change in pH. Note below
12. Discard used calibration standard, and rinse calibration cup and probes with DI water.

Dissolved Oxygen (% DO) calibration (should take *at least* 10 minutes):

1. Ensure unit has been on for at least 10 minutes: Initial time: 0640 + 10min = 0650
2. Enter the local barometric pressure.
   (Note: to convert from inches (common on a weather app or forecast) to mmHg, multiply by 25.4, then to correct to Ft. Smith's altitude, subtract 15.169 mmHg.)
   30.35 in. x 25.4 = 770.89 mmHg - 15.169 = 755.721 mmHg
3. Place ~3mm of DI water in the bottom of the calibration cup.
4. Lightly screw on the calibration cup (only 1 or 2 threads!)
5. Allow *10 minutes* for the air in the cup to become water-saturated and temp to stabilize.
6. Press "calibrate" after *30 seconds* of no significant change in DO. Note below.
7. Discard used DI water, and rinse calibration cup and probes with DI water.

Turbidity calibration:

1. Select "measure" on the main menu, then "Turbidity – With Blank"
2. Scan a sample using the 0.0 NTU Blank solution. "Scan Blank"
3. Scan a sample using the 10 NTU standard. "Scan Sample"
4. Select "Calibrate," then use the arrow buttons to adjust the value to the standard (10.0 NTU).

Field Notebook calibration entry:

YSI – Serial Number: 13E104132

1. Specific Conductance: 1413 µs/cm
2. ORP: 240.0 mV
3. pH:
   - Point 1: 7.00
   - Point 2: 4.00
   - Point 3: 10.03
4. DO: 99.4%

Turbidity Meter Model/Serial Number: FA01400

RAMBOLL ENVIRON

Whirlpool Ft. Smith Field Equipment Calibration Checklist

Date: 11/10/2016

Calibrated by: JMP

Turn on YSI. Note time in DO section Line 1.

Specific Conductance calibration (should take *at least* 1.5 minutes): **Lot #:** 5GI099 **Exp:** Sep 2017

1. Pour conductivity standard into calibration cup and immerse sensor.
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in specific conductance. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.

ORP calibration (should take *at least* 1.5 minutes): **Lot #:** 91074 **Exp:** 11/31/2021

1. Pour ORP (Zobell) standard into calibration cup and immerse sensor.
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in ORP. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.

3-Point pH calibration (should take *at least* 4.5 minutes):

1. Pour pH 7.0 standard into the calibration cup and immerse pH sensor. **Lot #** 6GE833 **Exp:** 05/31/2018
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in pH. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.
5. Pour pH 4.0 standard into the calibration cup and immerse pH sensor. **Lot #** 5AA262 **Exp:** Jan 2017
6. Allow *1 minute* for temperature stabilization.
7. Press "calibrate" after *30 seconds* of no significant change in pH. Note standard below.
8. Discard used calibration standard, and rinse calibration cup and probes with DI water.
9. Pour pH 10.0 standard into the calibration cup and immerse pH sensor. **Lot #** 6G6109 **Exp:** 7/31/2018
10. Allow *1 minute* for temperature stabilization.
11. Press "calibrate" after *30 seconds* of no significant change in pH. Note below
12. Discard used calibration standard, and rinse calibration cup and probes with DI water.

Dissolved Oxygen (% DO) calibration (should take *at least* 10 minutes):

1. Ensure unit has been on for at least 10 minutes: Initial time: 0725 + 10min = 0735
2. Enter the local barometric pressure.
   (Note: to convert from inches (common on a weather app or forecast) to mmHg, multiply by 25.4, then to correct to Ft. Smith's altitude, subtract 15.169 mmHg.)
   30.35 in. x 25.4 = 770.89 mmHg - 15.169 = 755.721 mmHg
3. Place ~3mm of DI water in the bottom of the calibration cup.
4. Lightly screw on the calibration cup (only 1 or 2 threads!)
5. Allow *10 minutes* for the air in the cup to become water-saturated and temp to stabilize.
6. Press "calibrate" after *30 seconds* of no significant change in DO. Note below.
7. Discard used DI water, and rinse calibration cup and probes with DI water.

Turbidity calibration:

1. Select "measure" on the main menu, then "Turbidity – With Blank"
2. Scan a sample using the 0.0 NTU Blank solution. "Scan Blank"
3. Scan a sample using the 10 NTU standard. "Scan Sample"
4. Select "Calibrate," then use the arrow buttons to adjust the value to the standard (10.0 NTU).

Field Notebook calibration entry:
YSI – Serial Number: 13D101777

1. Specific Conductance: 1.414
2. ORP: 240.5
3. pH:
   - Point 1: 7.01
   - Point 2: 3.96
   - Point 3: ~~10.0~~ 10.15
4. DO: 10.75

Turbidity Meter Model/Serial Number:

RAMBOLL ENVIRON

Whirlpool Ft. Smith Field Equipment Calibration Checklist

Date: 11/10/16

Calibrated by: H. Anders

Turn on YSI. Note time in DO section Line 1.

Specific Conductance calibration (should take *at least* 1.5 minutes): **Lot #:** 6GH058 **Exp:** 8/31/17

1. Pour conductivity standard into calibration cup and immerse sensor.
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in specific conductance. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.

ORP calibration (should take *at least* 1.5 minutes): **Lot #:** ~~6GE8~~ 9674 **Exp:** 1/31/21

1. Pour ORP (Zobell) standard into calibration cup and immerse sensor.
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in ORP. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.

3-Point pH calibration (should take *at least* 4.5 minutes):

1. Pour pH 7.0 standard into the calibration cup and immerse pH sensor. **Lot #** 6GE833 **Exp:** 5/31/18
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in pH. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.
5. Pour pH 4.0 standard into the calibration cup and immerse pH sensor. **Lot #** 6GH264 **Exp:** 7/31/18
6. Allow *1 minute* for temperature stabilization.
7. Press "calibrate" after *30 seconds* of no significant change in pH. Note standard below.
8. Discard used calibration standard, and rinse calibration cup and probes with DI water.
9. Pour pH 10.0 standard into the calibration cup and immerse pH sensor. **Lot #** 6GH109 **Exp:** 7/31/2018
10. Allow *1 minute* for temperature stabilization.
11. Press "calibrate" after *30 seconds* of no significant change in pH. Note below
12. Discard used calibration standard, and rinse calibration cup and probes with DI water.

Dissolved Oxygen (% DO) calibration (should take *at least* 10 minutes):

1. Ensure unit has been on for at least 10 minutes: Initial time: 0708 + 10min = 0718
2. Enter the local barometric pressure.
   (Note: to convert from inches (common on a weather app or forecast) to mmHg, multiply by 25.4, then to correct to Ft. Smith's altitude, subtract 15.169 mmHg.)
   30.34 in. x 25.4 = 770.636 mmHg - 15.169 = 755.467 mmHg
3. Place ~3mm of DI water in the bottom of the calibration cup.
4. Lightly screw on the calibration cup (only 1 or 2 threads!)
5. Allow *10 minutes* for the air in the cup to become water-saturated and temp to stabilize.
6. Press "calibrate" after *30 seconds* of no significant change in DO. Note below.
7. Discard used DI water, and rinse calibration cup and probes with DI water.

Turbidity calibration:

1. Select "measure" on the main menu, then "Turbidity – With Blank"
2. Scan a sample using the 0.0 NTU Blank solution. "Scan Blank"
3. Scan a sample using the 10 NTU standard. "Scan Sample"
4. Select "Calibrate," then use the arrow buttons to adjust the value to the standard (10.0 NTU).

Field Notebook calibration entry:

YSI – Serial Number: 15K101826

1. Specific Conductance: 1,412 µS/cm
2. ORP: 240.0
3. pH:
   - Point 1: 7.00
   - Point 2: 4.00
   - Point 3: 10.01
4. DO: 99.4%

Turbidity Meter Model/Serial Number: 5128-5014

Whirlpool Ft. Smith Field Equipment Calibration Checklist

Date: 11/10/18

Calibrated by: Victoria Sigler

Turn on YSI. Note time on line 38!

Specific Conductance calibration (should take *at least* 1.5 minutes): **Lot #:** 12105 5G1094 **Exp:** 3/18/17 9/17

1. Pour conductivity standard into calibration cup and immerse sensor.
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in specific conductance. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.

ORP calibration (should take *at least* 1.5 minutes): **Lot #:**_____ **Exp:** _____

1. Pour ORP (Zobell) standard into calibration cup and immerse sensor.
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in ORP. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.

3-Point pH calibration (should take *at least* 4.5 minutes):

1. Pour pH 7.0 standard into the calibration cup and immerse pH sensor. **Lot #** UGE833 **Exp:** 5/31/18
2. Allow *1 minute* for temperature stabilization.
3. Press "calibrate" after *30 seconds* of no significant change in pH. Note below.
4. Discard used calibration standard, and rinse calibration cup and probes with DI water.
5. Pour pH 4.0 standard into the calibration cup and immerse pH sensor. **Lot #** 5AA203 **Exp:** 1/1/17
6. Allow *1 minute* for temperature stabilization.
7. Press "calibrate" after *30 seconds* of no significant change in pH. Note standard below.
8. Discard used calibration standard, and rinse calibration cup and probes with DI water.
9. Pour pH 10.0 standard into the calibration cup and immerse pH sensor. **Lot #** UGG101 **Exp:** 7/31/18
10. Allow *1 minute* for temperature stabilization.
11. Press "calibrate" after *30 seconds* of no significant change in pH. Note below
12. Discard used calibration standard, and rinse calibration cup and probes with DI water.

Dissolved Oxygen (% DO) calibration (should take *at least* 10 minutes):

1. Ensure unit has been on for at least 10 minutes: Initial time: 0654 + 10min = 0704
2. Enter the local barometric pressure.
   (Note: to convert from inches (common on a weather app or forecast) to mmHg, multiply by 25.4, then to correct to Ft. Smith's altitude, subtract 15.169 mmHg.)
   30.35 in. x 25.4 = 770.89 mmHg - 15.169 = 755.721 mmHg
3. Place ~3mm of DI water in the bottom of the calibration cup.
4. Lightly screw on the calibration cup (only 1 or 2 threads!)
5. Allow *10 minutes* for the air in the cup to become water-saturated and temp to stabilize.
6. Press "calibrate" after *30 seconds* of no significant change in DO. Note below.
7. Discard used DI water, and rinse calibration cup and probes with DI water.

Turbidity calibration:

1. Select "measure" on the main menu, then "Turbidity – With Blank"
2. Scan a sample using the 0.0 NTU Blank solution. "Scan Blank"
3. Scan a sample using the 10 NTU standard. "Scan Sample"
4. Select "Calibrate," then use the arrow buttons to adjust the value to the standard (10.0 NTU).

Field Notebook calibration entry:

YSI – Serial Number:

1. Specific Conductance: 1410
2. ORP: 250
3. pH:
   - Point 1: 6.98
   - Point 2: 4.01
   - Point 3: 9.94
4. DO: 10.30

Turbidity Meter Model/Serial Number:

Appendix B

Annual 2016 Soil Vapor Monitoring and Vapor Intrusion Assessment Report





APPENDIX B
Annual 2016 Soil Vapor Monitoring and Vapor Intrusion Assessment Report
Whirlpool Corporation
Fort Smith, Arkansas

Prepared for:
Whirlpool Corporation

Prepared by:
Ramboll Environ US Corporation

Date:
February 2017

Project Number:
34-37500Q

RAMBOLL ENVIRON

Table of Contents

Page

1 Introduction 1

2 Soil Vapor Sample Collection 2

3 Results 3
3.1 Summary of Prior Assessments 3
3.2 Current Assessment 3
3.2.1 Parcels in the Neighborhood 4
3.2.1.1 Parcel 1 4
3.2.1.2 Parcel 2 4
3.2.1.3 Parcel 3 5
3.2.1.4 Parcel 4 6
3.2.1.5 Parcel 6 6
3.2.2 South of the Neighborhood – Parcel 5 7

4 Summary and Conclusion 8

5 References 9

LIST OF TABLES

Table 1a: Summary of Matrices Encountered and Sampled at Soil Vapor Monitoring Points
Table 1b: Summary of Screen Intervals at Soil Vapor Monitoring Points
Table 2a: Annual 2016 Groundwater VOC Data for Monitoring Wells in the Neighborhood
Table 2b: Annual 2016 Groundwater VOC Data for Monitoring Well South of the Neighborhood
Table 3: Annual 2016 Water Data from Soil Vapor Monitoring Points
Table 4: Upper-Bound Vapor Intrusion Risk Estimates Based on Annual 2016 Groundwater Data in the Neighborhood
Table 5: Evaluation of VOCs in Soil Vapor and Water at Parcels in the Neighborhood
Table 6: Evaluation of VOCs in Water at Parcel 5 (South of Neighborhood)

LIST OF FIGURES

Figure 1: Shallow Groundwater Monitoring Wells and Vapor Points Sampled During the 2016 Annual Sampling Event
Figure 2: Groundwater Monitoring Well Locations

LIST OF APPENDICES

Appendix A: Laboratory Analytical Data
Appendix B: Field Notes and Weather Data for November 2016
Appendix C: Risk Calculations and Input Parameters

1 Introduction

Ramboll Environ US Corporation (Ramboll Environ) has prepared this Annual 2016 Soil Vapor Monitoring and Vapor Intrusion Assessment Report for the Fort Smith, Arkansas, Site (Site) on behalf of Whirlpool Corporation, in accordance with the December 27, 2013, Remedial Action Decision Document (RADD) issued by the Arkansas Department of Environmental Quality (ADEQ, 2013) and the Revised Groundwater Monitoring Plan (RGWMP) (Ramboll Environ, 2016d). This report is Attachment B of the Annual 2016 Progress Report for the Site.

Whirlpool has been monitoring groundwater at the Site since 1989. In 2012, the potential for vapor intrusion from groundwater into buildings in the neighborhood north of the Site was evaluated using multiple lines of evidence in a human health risk assessment, which was presented as Appendix A of the Revised Risk Management Plan (RRMP) (ENVIRON, 2013). The risk assessment included the use of groundwater and soil vapor data in the evaluation of the potential for vapor intrusion. In January 2016, the risk assessment was updated with data collected after the 2013 risk assessment (Ramboll Environ, 2016a). The use of multiple lines of evidence in these risk assessments is consistent with United States Environmental Protection Agency's (USEPA's) recommendations in its 2015 vapor intrusion guidance documents (USEPA, 2015a and 2015b).

Data collected during the 2016 annual sampling event from groundwater monitoring wells and vapor monitoring points are evaluated in this report, using the methods and assumptions described in the 2013 and 2016 risk assessment reports.

2 Soil Vapor Sample Collection

Soil vapor sampling was attempted on November 7-10, 2016, following USEPA and industry standard methods, at five parcels in the neighborhood and one parcel south of the neighborhood. The sampling locations are shown on Figure 1. Water was encountered in all of the soil vapor monitoring points, except VP-9. The field procedures used during these soil vapor sampling attempts were consistent with the methodology described in the *First Quarter 2014 Soil Vapor Monitoring/Vapor Intrusion Report* (ENVIRON, 2014a) and the modifications discussed in the *Second Quarter 2014 Soil Vapor Monitoring/Vapor Intrusion Report* (ENVIRON, 2014b). Precipitation data for the month of November is provided in Appendix B.

Perched water filled the vapor points at locations VP-5, VP-6, VP-7, VP-8, VP-10 and VP-12 and the water from these monitoring points could not be purged from the sampling train. Consistent with the modifications to the sampling plan proposed in the *Second Quarter 2014 Soil Vapor Monitoring/Vapor Intrusion Report*, water samples were collected from these vapor points. Table 1a summarizes the matrices encountered at the soil vapor monitoring points and the types of samples that were collected during each sampling events since 2014. The screen intervals and matrices encountered at each of the soil vapor monitoring points and the co-located monitoring wells at each parcel during the 2016 annual sampling event are summarized in Table 1b. Information regarding the installation of the vapor monitoring points can be found in the *Fourth Quarter 2015 Soil Vapor Monitoring and Vapor Intrusion Assessment Report* (Ramboll Environ, 2015).

The volatile organic compound (VOC) results for the groundwater and perched water samples collected during the 2016 annual sampling event are discussed in Section 3. The analytical data reports for the samples are provided in Appendix A.

3 Results

3.1 Summary of Prior Assessments

Groundwater and soil vapor data collected prior to 2016 were evaluated and the results were presented in the RRMP, RADD[1] and the 2016 human health risk assessment.

The data collected over the groundwater plume in the neighborhood during the first and second quarters of 2016 continued to show that tetrachloroethylene (TCE) vapor intrusion from groundwater is not indicative of a public health concern. These findings corroborate the groundwater vapor intrusion modeling results which indicate vapor intrusion from groundwater is not occurring at levels that would present a public health concern. As discussed in the 2016 quarterly progress reports (Ramboll Environ, 2016b and c), risk estimates for vapor intrusion from groundwater in the neighborhood based on data from the first two quarters of 2016 are below ADEQ's risk management limits of 10^{-4} and 1 for cumulative cancer and non-cancer risks, respectively (ADEQ, 2005). These results were confirmed by vapor intrusion modeling using perched water data from the first two quarters of 2016. Details on these assessments were provided in the *First Quarter and Second Quarter 2016 Soil Vapor Monitoring and Vapor Intrusion Assessment Reports* (Ramboll Environ, 2016b and c).

3.2 Current Assessment

Groundwater data from monitoring wells (which have identifiers beginning with "MW-") in the neighborhood collected during the 2016 annual sampling event are summarized in Table 2a. Groundwater data from the monitoring well south of the neighborhood are summarized on Table 2b and is included in the report because in the past this area had the highest detected TCE concentration beyond the Site's property boundary. Figure 2 shows the locations of the groundwater monitoring wells that were sampled. Perched water data and soil vapor data from soil vapor points sampled during the 2016 annual sampling event are included in Table 3a and Table 3b, respectively. As discussed in Attachment A of this progress report, the TCE groundwater concentrations in the neighborhood have been stable or decreasing since May 2012.

The maximum detected groundwater concentrations among the monitoring wells in the neighborhood that were sampled in November 2016 are summarized in Table 4. These concentrations were used to calculate upper-bound risk estimates for potential vapor intrusion from groundwater into residences in the neighborhood, using the approach in Section 6. 5. 2 of the ADEQ-approved RRMP which was also used in the 2016 risk assessment. The calculation of and input parameters for these risk estimates are included as Appendix C. As shown in Table 4, the calculations resulted in upper-bound cumulative cancer risk and non-cancer hazard index (HI) estimates of 3×10^{-6} and 0. 5, respectively. These risk estimates are below ADEQ's risk management limits of 10^{-4} and 1, respectively (ADEQ, 2005). The calculations for risk

[1] Included in Appendix A of the April 2013 RRMP (ENVIRON, 2013) and Section 3.A of the December 2013 Remedial Action Decision Document (ADEQ, 2013).

estimates discussed in this section are included in Appendix C. Toxicity values used in the risk calculations are current as of December 2016.

Soil vapor monitoring points and nearby groundwater monitoring wells were installed at five parcels in January 2015 and one additional parcel in June 2015 to provide additional lines of evidence to evaluate the potential for vapor intrusion from groundwater. Where soil vapor data could not be collected but perched water samples could be collected from the soil vapor monitoring points, these data were used to confirm the conclusions of the groundwater vapor intrusion risk assessment.

The following sections describe the evaluation of groundwater, soil vapor and perched water data from the co-located monitoring points and monitoring wells at each of the six parcels. The parcels within the neighborhood are discussed in Section 3.2.1, the parcel south of the neighborhood is discussed in Section 3.2.2.

3.2.1 Parcels in the Neighborhood

3.2.1.1 Parcel 1

At Parcel 1, vapor intrusion risks were estimated based on the perched water data from VP-6, using the approach for groundwater (as described in Section 6.5.2 of the ADEQ-approved RRMP and the 2016 human health risk assessment) except the depth to water was increased to 14 feet below ground surface (bgs) to match the depth of the water sample at VP-6. As shown on Table 5, the upper-bound cumulative cancer risk and non-cancer HI estimates for perched water at VP-6 are 8×10^{-9} and 0. 00009, respectively, which are well within ADEQ's risk management limits for reasonable maximum exposure (RME) risks.

Upper-bound risk estimates were also calculated using the shallower perched water data from VP-5, which is located adjacent to VP-6. The shallower perched water is vertically disconnected and is not believed to be hydraulically connected to deeper perched water in this area and is an additional line of evidence for assessing the degree of vapor intrusion from groundwater. The risk estimates were calculated using the approach discussed above for groundwater, except the depth to water was decreased to 7.5 feet bgs. As shown in Table 5, the upper-bound cumulative cancer risk and non-cancer HI estimates for perched water at VP-5 are 1×10^{-8} and 0.0002, respectively, which are well within ADEQ's risk management limits for RME risks.

These results confirm that vapor intrusion from groundwater does not pose an unacceptable risk at Parcel 1. Only perched water data were evaluated at Parcel 1 because a soil vapor sample could not be collected from the vapor monitoring points at this location.

3.2.1.2 Parcel 2

At Parcel 2, vapor intrusion risks were estimated based on the perched water data from VP-8 and the approach discussed above for groundwater, except the depth to water was decreased to 10.5 feet bgs. As shown in Table 5, the upper-bound cumulative cancer risk and non-cancer HI estimates for perched water at VP-8 are 1×10^{-8} and 0.002, respectively, which are well within ADEQ's risk management limits for RME risks.

Upper-bound risk estimates were also calculated using the shallower perched water data from VP-7, which is located adjacent to VP-8, as an additional line of evidence for assessing the degree of vapor intrusion from groundwater. The risk estimates were calculated using the approach discussed above for groundwater, except the depth to water was decreased to 5.5 feet bgs. As shown in Table 5, the upper-bound cumulative cancer risk and non-cancer HI estimates for perched water at VP-7 are 5×10^{-9} and 0.00006, respectively, which are well within ADEQ's risk management limits for RME risks.

These results confirm that vapor intrusion from groundwater does not pose an unacceptable risk at Parcel 2. Only perched water data were evaluated at Parcel 2 because a soil vapor sample could not be collected from the vapor monitoring points at this location.

3.2.1.3 Parcel 3

At Parcel 3, vapor intrusion risks were estimated based on the perched water data from VP-10 and the approach discussed above for groundwater, except the depth to water was decreased to 11 feet bgs. As shown in Table 5, the upper-bound cumulative cancer risk and non-cancer HI estimates for water at VP-10 are 1×10^{-6} and 0.2, respectively, which are within ADEQ's risk management limits for RME risks.

Upper-bound risk estimates were also calculated using the soil vapor concentrations from VP-9 (located adjacent to VP-10) as an additional line of evidence for assessing the degree of vapor intrusion from groundwater. These risk estimates were calculated using USEPA's highly conservative 95th percentile sub-slab soil vapor attenuation factor of 0.03 (USEPA, 2015). As shown in Table 5, the upper-bound cumulative cancer risk and non-cancer HI estimates for soil vapor at VP-9 are 3×10^{-5} and 7, respectively. The upper-bound HI estimate exceeds ADEQ's non-cancer risk management limit of 1 for RME risks.

The elevated HI is the result of TCE that was detected at a concentration of 464 micrograms per cubic meter (µg/m^3) on November 8, 2016. Prior to the 2016 annual sampling event, VP-9 was last successfully sampled for soil vapor in Fourth Quarter 2015. TCE was detected is soil vapor at a concentration of 360 µg/m^3 on October 9, 2015, and 1,200 µg/m^3 on November 4, 2015. Because of the large change in the TCE soil vapor concentration, outdoor, crawl space and indoor air samples were collected at this parcel November 4-5, 2015.

The *Fourth Quarter 2015 Soil Vapor Monitoring and Vapor Intrusion Assessment Report* concluded the detected constituent concentrations in outdoor, crawl space and indoor air samples were not associated with the groundwater conditions related to the Site; therefore, the calculation of risk estimates was unnecessary to evaluate the degree of potential for vapor intrusion from groundwater.

These findings from the November 2015 vapor intrusion assessment are still considered to be valid, since the new TCE soil vapor concentration at VP-9 is lower than that in 2015. The upper-bound risk estimates in Table 5 are lower than those in November 2015 when air sampling data demonstrated that the vapor intrusion pathway from groundwater did not actually exist.

The upper-bound risk estimates for soil vapor from VP-9 are higher than the risk estimates based on the perched water data from VP-10. These higher risk estimates should not be interpreted as an indication that the risk estimates from the water data are not adequately conservative. Rather, the interpretation should be that the risk estimates based on the soil vapor data are upper-bound rather than reasonable worst-case and thus, are more conservative than necessary. As discussed in Section 6.8.2 of the RRMP, these risk estimates ignore the substantial attenuation due to the approximately 5 feet of silty clay between the soil vapor sample depth and ground surface. Accounting for such attenuation would result in risk estimates for VP-9 that are substantially lower than those shown in Table 5.

Using multiple lines of evidence, these results confirm that vapor intrusion from groundwater does not pose an unacceptable risk at Parcel 3. As discussed in Section 3.2.1.2, these soil vapor risk estimates are more conservative than necessary because they ignore the attenuation due to the approximately 5 feet of silty clay between the soil gas sample and the assumed sub-slab.

3.2.1.4 Parcel 4

At Parcel 4, vapor intrusion risks were estimated based on the perched water data from VP-12 and the approach discussed above for groundwater, except the depth to water was increased to 12.5 feet bgs. As shown in Table 5, the upper-bound cumulative cancer risk and non-cancer HI estimates from groundwater at VP-12 are 5×10^{-9} and 0.0004, respectively, which are well within ADEQ's risk management limits for RME risks.

In previous quarters, vapor intrusion risks were also calculated using shallow groundwater data from MW-71, MW-177 or MW-181 as an additional line of evidence (see Table 1b). However, per the RGWMP, these wells are not sampled in the annual sampling event (Ramboll Environ, 2016).

The results from VP-12 confirm that vapor intrusion from groundwater does not pose an unacceptable risk at Parcel 4. Only perched water data were evaluated at Parcel 4 because a soil vapor sample could not be collected from the vapor monitoring point at this location.

3.2.1.5 Parcel 6

At Parcel 6, vapor intrusion risks were estimated based on the groundwater data from MW-55R and the approach discussed above for groundwater. As shown on Table 5, the upper-bound cumulative cancer risk and non-cancer HI estimates for groundwater at MW-55R are 1×10^{-8} and 0.002, respectively, which are well within ADEQ's risk management limits for RME risks.

In previous quarters, vapor intrusion risks were also calculated using data collected from VP-15 as an additional line of evidence. However, VP-15 was not successfully sampled in November 2016. Though water was encountered at VP-15, it was of insufficient volume for sample collection.

The results from MW-55R confirm that vapor intrusion from groundwater does not pose an unacceptable risk at Parcel 6.

3.2.2 South of the Neighborhood (Parcel 5)

Risk estimates for potential vapor intrusion from groundwater into residential buildings were estimated based on the data collected at Parcel 5, which is a vacant non-residential property located south of Ingersoll Avenue and the residential neighborhood. Groundwater vapor intrusion risks were conservatively calculated using the groundwater data from MW-178 and the approach discussed above for groundwater, except the depth to water was decreased to 7.5 feet bgs. As shown in Table 6, the upper-bound cumulative cancer risk and non-cancer HI estimates from groundwater at MW-33R are 1×10^{-8} and 0.002, respectively, which are below ADEQ's risk management limits for RME risks.

In previous quarters, vapor intrusion risk was also calculated using shallow groundwater data from MW-33R, MW-179 or MW-180 as an additional line of evidence (see Table 1b). However, MW-33R was abandoned during the 2016 annual event due to road construction. A sample was attempted at MW-179, but the well was purged dry and did not recover. Per the RGWMP, MW-180 is not sampled in the annual sampling event (Ramboll Environ, 2016d). Only shallow groundwater data were evaluated at this parcel because, as discussed in prior quarterly reports, a shallow soil vapor monitoring point (VP-13) could not be installed due to the presence of shallow water. No sample was attempted at VP-14 in November 2016. However, since VP-14 has historically been saturated and is screened at a deeper interval than MW-178, this does not represent a serious data gap in evaluating vapor intrusion.

The results from MW-178 confirm that vapor intrusion from groundwater would not pose an unacceptable risk if there was a residence at Parcel 5.

4 Summary and Conclusion

- The concentrations of TCE in groundwater are stable or decreasing compared to previous reporting periods and historic results.
- Risk estimates for vapor intrusion from groundwater in the neighborhood are below ADEQ's risk management limits of 10^{-4} and 1 for cumulative cancer risk and non-cancer hazards, respectively.
- Vapor intrusion modeling using perched water and soil gas confirms the modeling results using VOC concentrations in water collected from groundwater monitoring wells, except at Parcel 3 where the TCE vapor concentration in VP-9 resulted in an upper-bound HI that exceeds 1. However, this concentration is lower than that at VP-9 in November 2015 when data from outdoor, crawl space and indoor air sampling demonstrated that vapor intrusion from groundwater was actually not occurring.

5 References

Arkansas Department of Environmental Quality (ADEQ). 2005. Ground Water Remediation Level Interim Policy and Technical Guidance. Memorandum from Marcus Devine, Director, to Ellen Carpenter, Legal Division Chief. July 12.

Arkansas Department of Environmental Quality (ADEQ). 2013. Remedial Action Decision Document (RADD) for Corrective Action. Facility Identification Number: 66-00048. December 27.

ENVIRON International Corporation (ENVIRON). 2013. Revised Risk Management Plan. April 24.

ENVIRON International Corporation (ENVIRON). 2014a. First Quarter 2014 Progress Report, Attachment B: Soil Vapor Monitoring/Vapor Intrusion Report. May 15.

ENVIRON International Corporation (ENVIRON). 2014b. Second Quarter 2014 Progress Report, Attachment B: Soil Vapor Monitoring/Vapor Intrusion Report. August 15.

Ramboll Environ US Corporation (Ramboll Environ). 2015. Fourth Quarter 2015 Progress Report, Attachment B: Soil Vapor Monitoring and Vapor Intrusion Assessment Report. December.

Ramboll Environ US Corporation (Ramboll Environ). 2016a. Human Health Risk Assessment Update. January.

Ramboll Environ US Corporation (Ramboll Environ). 2016b. First Quarter 2016 Progress Report, Attachment B: Soil Vapor Monitoring and Vapor Intrusion Assessment Report. May.

Ramboll Environ US Corporation (Ramboll Environ). 2016c. Second Quarter 2016 Progress Report, Attachment B: Soil Vapor Monitoring and Vapor Intrusion Assessment Report. July.

Ramboll Environ US Corporation (Ramboll Environ). 2016d. Revised Groundwater Monitoring Plan. September.

United States Environmental Protection Agency (USEPA). 2015a. OSWER Technical Guide for Assessing and Mitigating the Vapor Intrusion Pathway from Subsurface Vapor Sources to Indoor Air. Office of Solid Waste and Emergency Response. OSWER Publication 9200. 2-154. June.

United States Environmental Protection Agency (USEPA). 2015b. Technical Guide for Addressing Petroleum Vapor Intrusion at Leaking Underground Storage Tank Sites. EPA 510-R-15-001. June.

Weather Underground. "Weather History for Fort Smith, AR. " Weather Forecast & Reports. April 2016. Accessed June 28, 2016. < http://www. wunderground. com/history/ airport/KFSM/2016/4/15/MonthlyCalendar. html>.

Weather Underground. "Weather History for Fort Smith, AR. " Weather Forecast & Reports. May 2016. Accessed June 28, 2016. < http://www. wunderground. com/history/airport/KFSM/2016/5/15/MonthlyCalendar. html>.

Tables

TABLE 1a
SUMMARY OF MATRICES ENCOUNTERED AND SAMPLED AT SOIL VAPOR MONITORING POINTS
Whirlpool Facility - Fort Smith, Arkansas

Quarter of Collection	Date of Collection	In Neighborhood										South of Neighborhood	
		Parcel 1		Parcel 2		Parcel 3			Parcel 4		Parcel 6	Parcel 5	
		VP-5	VP-6	VP-7	VP-8	OA/CS/IA~	VP-9	VP-10	VP-1S+	VP-1D / VP-12#	VP-15	VP-2S+	VP-2D / VP-14#
Annual 2016	11/2016	**Water**	**Water**	**Water**	**Water**	NS	**Air**	**Water**	--	**Water**	NS	--	NS
2nd Q 2016	5/2016	**Water**	**Water**	**Water**	**Water**	NS	NS	**Water**	--	**Water**	**Water**	--	**Water**
1st Q 2016	1/2016	**Water**	**Water**	**Water**	**Water**	NS	NS	**Water**	--	**Water**	**Water**	--	**Water**
4th Q 2015	10/2015	**Water**	**Water**	**Air**	**Water**	**Air**	**Air**	**Water**	--	**Water**	**Water**	--	**Water**
3rd Q 2015	7/2015	**Water**	**Water**	**Air**	**Water**	NS	**Water**	**Water**	--	**Water**	**Water**	--	**Water**
2nd Q 2015	4/2015	**Water**	**Water**	**Air**	**Water**	**Air**	**Air**	**Water**	--	**Water**	--	--	*Water*
1st Q 2015	1/2015	**Air**	**Water**	**Air**	*Water*	--	**Air**	**Water**	--	**Water**	--	--	**Air**
4th Q 2014	10/2014	--	--	--	--	--	--	--	**Water**	*Air*	--	**Water**	**Water**
3rd Q 2014	9/2014	--	--	--	--	--	--	--	**Water**	*Air**	--	**Water**	**Water**
3rd Q 2014	7/2014	--	--	--	--	--	--	--	*Water*	*Water*	--	**Water**	**Water**
2nd Q 2014	5/2014	--	--	--	--	--	--	--	Water	**Air**	--	Water	Water
1st Q 2014	3/2014	--	--	--	--	--	--	--	**Air**	**Air**	--	Water	**Air**

Notes:
Shaded and **bolded** cells indicate that a sample was collected.
Italicized cells indicate that insufficient volume was available for sample collection
Dashes ("--") indicate the location was not installed or was abandoned during this sampling event.
Prior to the Third Quarter 2014, water encountered in the soil vapor monitoring points was not sampled per the quarterly sampling plan.
"NS" indicates the location was not sampled during this sampling event.
* During the September 2014 sampling event, no air or water sample could be collected at VP-1D; a water sample was collected at the nearby port SV-04D to characterize VOC concentrations in the area.
~ Outdoor ("OA"), crawl space ("CS"), and indoor air ("IA") samples were collected in the Second Quarter 2015 and Fourth Quarter 2015 at Parcel 3 at the request of the property owner
+ During the First Quarter 2015, VP-1S and VP-2S were abandoned and installation of VP-11 and VP-13 was attempted in Parcels 4 and 5, respectively. However, because of water in the borings for VP-11 and VP-13, monitoring wells MW-181 and MW-180, respectively, were installed.
# During the First Quarter 2015, locations VP-1D and VP-2D were replaced by VP-12 and VP-14, respectively.

TABLE 1b
SUMMARY OF SCREEN INTERVALS AT SOIL VAPOR MONITORING POINTS
Whirlpool Facility - Fort Smith, Arkansas

Area	Parcel	Location	Screen Interval (ft bgs)	Notes	Annual 2016
					11/2016
In Neighborhood	1	MW-173	5-6	Not included in Revised Groundwater Monitoring Plan	NS
In Neighborhood	1	VP-5	7.25-7.75	Water in VP	Water
In Neighborhood	1	MW-174	10-11	Not included in Revised Groundwater Monitoring Plan	NS
In Neighborhood	1	VP-6	13.75-14.25	Water in VP	Water
In Neighborhood	2	VP-7	5.25-5.75	Water in VP	Water
In Neighborhood	2	VP-8	10.25-10.75	Water in VP	Water
In Neighborhood	2	MW-175	14-15		Water
In Neighborhood	3	VP-9	5.25-5.75		Air
In Neighborhood	3	VP-10	10.75-11.25	Water in VP	Water
In Neighborhood	3	MW-176	13.5-14.5		Water
In Neighborhood	4	MW-181 (VP-11)+	5.5-6.5	Not included in Revised Groundwater Monitoring Plan	NS
In Neighborhood	4	MW-177	9-10	Not included in Revised Groundwater Monitoring Plan	NS
In Neighborhood	4	MW-71	12#	Not included in Revised Groundwater Monitoring Plan	NS
In Neighborhood	4	VP-12 (VP-1D)*	12.25-12.75	Water in VP	Water
In Neighborhood	6	VP-15	5.25-5.75	Water in VP. Insufficient volume for sample collection.	*Water*
In Neighborhood	6	MW-55R	19-21		Water
South of Neighborhood	5	MW-180 (VP-13)+	6-7	Not included in Revised Groundwater Monitoring Plan	NS
South of Neighborhood	5	MW-178	7-8		Water
South of Neighborhood	5	VP-14 (VP-2D)*	10.25-10.75	No sample attempted.	NS
South of Neighborhood	5	MW-179	12-13	Sample attempted but well was purged dry and did not recover	NS
South of Neighborhood	5	MW-33R	19-21	Abandoned due to road work	NS

Notes:

Shaded cells indicate that sample was used in risk assessment.

Italicized cells indicate that insufficient volume was available for sample collection.

Dashes ("--") indicate the location was not installed or was abandoned during this sampling event.

Prior to the Third Quarter 2014, water encountered in the soil vapor monitoring points was not sampled per the quarterly sampling plan.

"NS" indicates the location was not sampled during this sampling event.

* During the First Quarter 2015, locations VP-1D and VP-2D were replaced by VP-12 and VP-14, respectively.

+ During the First Quarter 2015, VP-1S and VP-2S were abandoned and installation of VP-11 and VP-13 was attempted in Parcels 4 and 5, respectively. However, because of water in the borings for VP-11 and VP-13, monitoring wells MW-181 and MW-180, respectively, were installed.

Well screen information is not available for MW-71. The typical depth to groundwater of 12 feet bgs was substituted for the screen depth.

TABLE 2a
ANNUAL 2016 GROUNDWATER VOC DATA FOR MONITORING WELLS IN THE NEIGHBORHOOD
Whirlpool Facility - Fort Smith, Arkansas

Location	MW-39R	MW-40R	MW-46R	MW-50R	MW-55R	MW-56R	MW-57R
Field Sample ID	MW-39R-201611	MW-40R-201611	MW-46R-201611	MW-50R-201611	MW-55R-201611	MW-56R-201611	MW-57R-201611
Lab Sample ID	60231721004	60231721005	60231848002	60231721007	60231721003	60231848011	60231848010
Sample Date	11/7/2016	11/7/2016	11/8/2016	11/7/2016	11/7/2016	11/8/2016	11/8/2016
Comments							
VOC							
Acetone	U (1.9)	U (1.9)	U (1.9)	U (1.9)	U (1.9)	U (1.9)	U (1.9)
Benzene	U (0.060)	U (0.060)	U (0.060)	U (0.060)	U (0.060)	0.17 J (0.060)	U (0.060)
Bromoform	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)
Bromomethane	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)
2-Butanone	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)
Carbon Disulfide	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)
Chloroform	U (0.14)	U (0.14)	U (0.14)	U (0.14)	0.22 J (0.14)	0.31 J (0.14)	0.14 J (0.14)
Chloromethane	U (0.080)	U (0.080)	U (0.080)	U (0.080)	U (0.080)	U (0.080)	U (0.080)
1,1-Dichloroethane	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)
1,2-Dichloroethane	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)
1,1-Dichloroethene	U (0.20)	U (0.20)	1.2 (0.20)	U (0.20)	U (0.20)	1.9 (0.20)	1.9 (0.20)
cis-1,2-Dichloroethene	U (0.080)	U (0.080)	10.3 (0.080)	U (0.080)	U (0.080)	27.8 (0.080)	23.0 (0.080)
trans-1,2-Dichloroethene	U (0.20)	U (0.20)	0.35 J (0.20)	U (0.20)	U (0.20)	0.35 J (0.20)	0.23 J (0.20)
Ethyl Benzene	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)
2-Hexanone	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)
4-Methyl-2-pentanone	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)
Methylene Chloride	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)
Tetrachloroethene	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)	0.18 J (0.10)
Toluene	U (0.17)	U (0.17)	U (0.17)	U (0.17)	U (0.17)	U (0.17)	U (0.17)
1,1,1-Trichloroethane	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)
Trichloroethene	U (0.17)	U (0.17)	411 (0.85)	U (0.17)	3.1 (0.17)	679 (1.7)	441 (0.85)
Vinyl Chloride	U (0.13)	U (0.13)	0.79 J (0.13)	U (0.13)	U (0.13)	0.37 J (0.13)	0.44 J (0.13)

Notes:

1 All concentrations are presented in µg/L (ppb).

2 Only chemicals with at least one detection in any water or soil vapor sample are shown.

U = Not detected

J = Estimated concentration

( ) = Detection limit

µg/L = Micrograms per liter

TABLE 2a
ANNUAL 2016 GROUNDWATER VOC DATA FOR MONITORING WELLS IN THE NEIGHBORHOOD
Whirlpool Facility - Fort Smith, Arkansas

Location	MW-57R	MW-58R	MW-60R	MW-61R	MW-62R	MW-63R	MW-68
Field Sample ID	DUP-07-201611	MW-58R-201611	MW-60R-201611	MW-61R-201611	MW-62R-201611	MW-63R-201611	MW-68-201611
Lab Sample ID	60231848009	60232090008	60231848001	60231722001	60231721006	60231721002	60231721001
Sample Date	11/8/2016	11/10/2016	11/8/2016	11/7/2016	11/7/2016	11/7/2016	11/7/2016
Comments	Field Duplicate						
VOC							
Acetone	U (1.9)	U (1.9)	2.3 J (1.9)	U (1.9)	U (1.9)	U (1.9)	U (1.9)
Benzene	U (0.060)	U (0.060)	U (0.060)	U (0.060)	U (0.060)	U (0.060)	U (0.060)
Bromoform	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)
Bromomethane	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)
2-Butanone	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)
Carbon Disulfide	U (0.12)	U (0.12)	U (0.12)	UJ (0.12)	U (0.12)	U (0.12)	U (0.12)
Chloroform	0.16 J (0.14)	0.16 J (0.14)	U (0.14)	U (0.14)	0.27 J (0.14)	0.21 J (0.14)	U (0.14)
Chloromethane	U (0.080)	U (0.080)	U (0.080)	0.21 JB (0.080)	U (0.080)	U (0.080)	U (0.080)
1,1-Dichloroethane	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)
1,2-Dichloroethane	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)
1,1-Dichloroethene	1.7 (0.20)	2.3 (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)
cis-1,2-Dichloroethene	24.3 (0.080)	28.5 (0.080)	U (0.080)	2.9 (0.080)	U (0.080)	0.21 J (0.080)	U (0.080)
trans-1,2-Dichloroethene	U (0.20)	0.23 J (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)
Ethyl Benzene	U (0.18)	U (0.18)	U (0.18)	0.28 J (0.18)	U (0.18)	U (0.18)	U (0.18)
2-Hexanone	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)
4-Methyl-2-pentanone	U (0.42)	U (0.42)	U (0.42)	UJ (0.42)	U (0.42)	U (0.42)	U (0.42)
Methylene Chloride	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)
Tetrachloroethene	0.18 J (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)
Toluene	U (0.17)	U (0.17)	U (0.17)	0.48 J (0.17)	U (0.17)	U (0.17)	U (0.17)
1,1,1-Trichloroethane	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)
Trichloroethene	453 (0.85)	U (0.17)	U (0.17)	2.3 (0.17)	U (0.17)	2.9 (0.17)	U (0.17)
Vinyl Chloride	0.45 J (0.13)	0.85 J (0.13)	U (0.13)	U (0.13)	U (0.13)	U (0.13)	U (0.13)

Notes:

1 All concentrations are presented in µg/L (ppb).

2 Only chemicals with at least one detection in any water or soil vapor sample are shown.

U = Not detected

J = Estimated concentration

( ) = Detection limit

µg/L = Micrograms per liter

TABLE 2a
ANNUAL 2016 GROUNDWATER VOC DATA FOR MONITORING WELLS IN THE NEIGHBORHOOD
Whirlpool Facility - Fort Smith, Arkansas

Location	MW-82	MW-96	MW-97	MW-98	MW-175	MW-176	MW-194
Field Sample ID	MW-82-201611	MW-96-201611	MW-97-201611	MW-98-201611	MW-175-201611	MW-176-201611	MW-194-201611
Lab Sample ID	60231925009	60231848021	60231848020	60231848018	60231848008	60231848012	60231722004
Sample Date	11/9/2016	11/8/2016	11/8/2016	11/8/2016	11/8/2016	11/8/2016	11/7/2016
Comments							
VOC							
Acetone	U (1.9)	U (1.9)	U (1.9)	U (1.9)	11.9 (1.9)	U (1.9)	U (1.9)
Benzene	0.16 J (0.060)	U (0.060)	U (0.060)	U (0.060)	0.17 J (0.060)	0.11 J (0.060)	U (0.060)
Bromoform	1.1 J (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)
Bromomethane	0.82 J (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)
2-Butanone	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)	U (0.59)
Carbon Disulfide	0.33 J (0.12)	U (0.12)	U (0.12)	U (0.12)	0.37 J (0.12)	U (0.12)	UJ (0.12)
Chloroform	0.15 J (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)	U (0.14)
Chloromethane	4.3 (0.080)	U (0.080)	U (0.080)	0.39 J (0.080)	0.50 J (0.080)	U (0.080)	0.28 JB (0.080)
1,1-Dichloroethane	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)
1,2-Dichloroethane	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	0.12 J (0.12)	U (0.12)
1,1-Dichloroethene	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	3.1 (0.20)	U (0.20)
cis-1,2-Dichloroethene	0.24 J (0.080)	U (0.080)	U (0.080)	U (0.080)	0.49 J (0.080)	202 (0.80)	U (0.080)
trans-1,2-Dichloroethene	U (0.20)	U (0.20)	U (0.20)	U (0.20)	U (0.20)	1.8 (0.20)	U (0.20)
Ethyl Benzene	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)
2-Hexanone	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)	U (1.2)
4-Methyl-2-pentanone	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	U (0.42)	UJ (0.42)
Methylene Chloride	0.28 J (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)	U (0.15)
Tetrachloroethene	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)
Toluene	U (0.17)	U (0.17)	U (0.17)	U (0.17)	U (0.17)	0.31 J (0.17)	U (0.17)
1,1,1-Trichloroethane	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)
Trichloroethene	36.2 (0.17)	U (0.17)	U (0.17)	U (0.17)	50.9 (0.17)	320 (1.7)	12.7 (0.17)
Vinyl Chloride	U (0.13)	U (0.13)	U (0.13)	U (0.13)	U (0.13)	1.6 (0.13)	U (0.13)

Notes:

1 All concentrations are presented in µg/L (ppb).

2 Only chemicals with at least one detection in any water or soil vapor sample are shown.

U = Not detected

J = Estimated concentration

( ) = Detection limit

µg/L = Micrograms per liter

TABLE 2a
ANNUAL 2016 GROUNDWATER VOC DATA FOR MONITORING WELLS IN THE NEIGHBORHOOD
Whirlpool Facility - Fort Smith, Arkansas

Location	MW-195	MW-196
Field Sample ID	MW-195-201611	MW-196-201611
Lab Sample ID	60231925026	60231925031
Sample Date	11/9/2016	11/9/2016
Comments		
VOC		
Acetone	U (1.9)	U (1.9)
Benzene	U (0.060)	U (0.060)
Bromoform	U (0.070)	U (0.070)
Bromomethane	U (0.16)	U (0.16)
2-Butanone	U (0.59)	U (0.59)
Carbon Disulfide	0.16 J (0.12)	U (0.12)
Chloroform	0.16 J (0.14)	0.17 J (0.14)
Chloromethane	U (0.080)	U (0.080)
1,1-Dichloroethane	U (0.050)	U (0.050)
1,2-Dichloroethane	U (0.12)	U (0.12)
1,1-Dichloroethene	U (0.20)	U (0.20)
cis-1,2-Dichloroethene	U (0.080)	U (0.080)
trans-1,2-Dichloroethene	U (0.20)	U (0.20)
Ethyl Benzene	U (0.18)	U (0.18)
2-Hexanone	U (1.2)	U (1.2)
4-Methyl-2-pentanone	U (0.42)	U (0.42)
Methylene Chloride	U (0.15)	U (0.15)
Tetrachloroethene	U (0.10)	U (0.10)
Toluene	U (0.17)	U (0.17)
1,1,1-Trichloroethane	U (0.11)	U (0.11)
Trichloroethene	U (0.17)	U (0.17)
Vinyl Chloride	U (0.13)	U (0.13)

Notes:

1 All concentrations are presented in µg/L (ppb).

2 Only chemicals with at least one detection in any water or soil vapor sample are shown.

U = Not detected

J = Estimated concentration

( ) = Detection limit

µg/L = Micrograms per liter

TABLE 2b
ANNUAL 2016 GROUNDWATER VOC DATA FOR MONITORING WELLS SOUTH OF THE NEIGHBORHOOD
Whirlpool Facility - Fort Smith, Arkansas

Location	MW-178
Field Sample ID	MW-178-201611
Lab Sample ID	60232090005
Sample Date	11/10/2016
Comments	
Volatile Organic Compounds	
Acetone	U (1.9)
Benzene	U (0.060)
Bromoform	U (0.070)
Bromomethane	U (0.16)
2-Butanone	U (0.59)
Carbon Disulfide	U (0.12)
Chloroform	U (0.14)
Chloromethane	U (0.080)
1,1-Dichloroethane	U (0.050)
1,2-Dichloroethane	U (0.12)
1,1-Dichloroethene	0.21 J (0.20)
cis-1,2-Dichloroethene	0.15 J (0.080)
trans-1,2-Dichloroethene	U (0.20)
Ethyl Benzene	U (0.18)
2-Hexanone	U (1.2)
4-Methyl-2-pentanone	U (0.42)
Methylene Chloride	U (0.15)
Tetrachloroethene	U (0.10)
Toluene	U (0.17)
1,1,1-Trichloroethane	U (0.11)
Trichloroethene	3.2 (0.17)
Vinyl Chloride	U (0.13)

Notes:

1 All concentrations are presented in µg/L (ppb).

2 Only chemicals with at least one detection in any water or soil vapor sample are shown.

U = Not detected

J = Estimated concentration

( ) = Detection limit

µg/L = Micrograms per liter

TABLE 3a
ANNUAL 2016
WATER DATA FROM SOIL VAPOR MONITORING POINTS
Whirlpool Facility - Fort Smith, Arkansas

Parcel	1	1	2	2	3	4
Location	VP-5	VP-6	VP-7	VP-8	VP-10	VP-12
Field Sample ID	VP-05-201611	VP-06-201611	VP-07-201611	VP-08-201611	VP-10-201611	VP-12-201611
Lab Sample ID	60231873006	60231873005	60231873003	60231873004	60231873002	60231873001
Collection Depth (ft bgs)	7.25-7.75	13.75-14.25	5.25-5.75	10.25-10.75	10.75-11.25	12.25-12.75
Sample Date	11/8/2016	11/8/2016	11/8/2016	11/8/2016	11/8/2016	11/8/2016
Comments						
VOC						
Acetone	112 (1.9)	80.6 (1.9)	85.8 (1.9)	113 (1.9)	U (1.9)	2.7 J (1.9)
Benzene	1.5 (0.060)	1.8 (0.060)	0.95 J (0.060)	0.55 J (0.060)	0.18 J (0.060)	0.13 J (0.060)
Bromoform	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)	U (0.070)
Bromomethane	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)	U (0.16)
2-Butanone	24.6 (0.59)	13.0 (0.59)	8.9 J (0.59)	20.4 (0.59)	U (0.59)	U (0.59)
Carbon Disulfide	2.1 J (0.12)	2.7 J (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)
Chloroform	0.59 J (0.14)	U (0.14)	U (0.14)	U (0.14)	0.70 J (0.14)	0.23 J (0.14)
Chloromethane	U (0.080)	U (0.080)	0.59 J (0.080)	U (0.080)	U (0.080)	U (0.080)
1,1-Dichloroethane	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)	U (0.050)
1,2-Dichloroethane	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)	U (0.12)
1,1-Dichloroethene	U (0.20)	U (0.20)	U (0.20)	U (0.20)	1.6 (0.20)	U (0.20)
cis-1,2-Dichloroethene	U (0.080)	U (0.080)	U (0.080)	U (0.080)	16.0 (0.080)	U (0.080)
trans-1,2-Dichloroethene	U (0.20)	U (0.20)	U (0.20)	U (0.20)	0.27 J (0.20)	U (0.20)
Ethyl Benzene	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)	U (0.18)
2-Hexanone	9.5 J (1.2)	U (1.2)	U (1.2)	3.7 J (1.2)	U (1.2)	U (1.2)
4-Methyl-2-pentanone	2.6 J (0.42)	1.2 J (0.42)	2.0 J (0.42)	1.3 J (0.42)	U (0.42)	U (0.42)
Methylene Chloride	0.71 J (0.15)	0.24 J (0.15)	U (0.15)	0.26 J (0.15)	0.35 J (0.15)	0.33 J (0.15)
Tetrachloroethene	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)	U (0.10)
Toluene	0.47 J (0.17)	0.24 J (0.17)	U (0.17)	0.43 J (0.17)	0.42 J (0.17)	U (0.17)
1,1,1-Trichloroethane	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)	U (0.11)
Trichloroethene	U (0.17)	U (0.17)	U (0.17)	2.4 (0.17)	278 (0.85)	0.55 J (0.17)
Vinyl Chloride	U (0.13)	U (0.13)	U (0.13)	U (0.13)	0.39 J (0.13)	U (0.13)

Notes:

1 All concentrations are presented in µg/L (ppb).

2 Only chemicals with at least one detection in any water or soil vapor sample are shown.

U = Not detected

J = Estimated concentration

( ) = Method detection limit

µg/L = Micrograms per liter

TABLE 3b
ANNUAL 2016 SOIL VAPOR DATA
Whirlpool Corporation; Fort Smith, Arkansas

Parcel	**3**
Location	**VP-9**
Field Sample ID	**VP-09-201611**
Lab Sample ID	**60231974001**
Collection Depth (ft bgs)	**5.25-5.75**
Sample Date	**11/8/2016**
Comments	
Volatile Organic Compounds	
1,1-Dichloroethane	U (0.22)
1,2-Dichloroethane	U (0.28)
1,1-Dichloroethene	0.59 J (0.33)
cis-1,2-Dichloroethene	0.68 J (0.34)
trans-1,2-Dichloroethene	U (0.53)
Tetrachloroethene	0.50 J (0.39)
Trichloroethene	464 (7.7)
Vinyl Chloride	0.58 (0.27)

Notes:

1 All concentrations are presented in µg/m^3.

2 Only analyzed chemicals with at least one detection in any water or soil vapor sample are shown.

U = Not detected
J = Estimated concentration
( ) = Method detection limit
µg/L = Micrograms per liter
ft bgs = Feet below ground surface

TABLE 4
UPPER-BOUND VAPOR INTRUSION RISK ESTIMATES
BASED ON ANNUAL 2016 GROUNDWATER DATA IN THE NEIGHBORHOOD
Whirlpool Facility - Fort Smith, Arkansas

Chem Group	Chemical	CASRN	Maximum Detected Concentration in Groundwater in Neighborhood (mg/L)	Location of Maximum Detected Concentration in Groundwater in Neighborhood	Residential VI	
					Risk	HQ
VOC	Acetone	67-64-1	1.19E-02	MW-175		7.8E-08
VOC	Benzene	71-43-2	1.70E-04	MW-56R, MW-175	7.5E-10	7.5E-06
VOC	Bromoform	75-25-2	1.10E-03	MW-82	1.2E-10	
VOC	Bromomethane	74-83-9	8.20E-04	MW-82		2.5E-04
VOC	Carbon Disulfide	75-15-0	3.70E-04	MW-175		1.5E-06
VOC	Chloroform	67-66-3	3.10E-04	MW-56R	3.7E-09	7.5E-06
VOC	Chloromethane	74-87-3	4.30E-03	MW-82		7.5E-05
VOC	1,2-Dichloroethane	107-06-2	1.20E-04	MW-176	8.8E-10	1.1E-05
VOC	1,1-Dichloroethene	75-35-4	3.10E-03	MW-176		4.0E-05
VOC	cis-1,2-Dichloroethene	156-59-2	2.02E-01	MW-176		
VOC	trans-1,2-Dichloroethene	156-60-5	1.80E-03	MW-176		
VOC	Ethyl Benzene	100-41-4	2.80E-04	MW-61R		3.4E-07
VOC	Methylene Chloride	75-09-2	2.80E-04	MW-82	3.2E-12	5.0E-07
VOC	Tetrachloroethene	127-18-4	1.80E-04	MW-57R	3.4E-11	7.7E-06
VOC	Toluene	108-88-3	4.80E-04	MW-61R		1.2E-07
VOC	Trichloroethene	79-01-6	6.79E-01	MW-56R	2.5E-06	5.2E-01
VOC	Vinyl Chloride	75-01-4	1.60E-03	MW-176	3.3E-08	5.1E-05
				Cumulative Risk and HI:	3E-06	5E-01

Note:
Only COCs detected in monitoring wells in the neighborhood are shown.
Detected concentrations are from samples collected from groundwater monitoring wells in the Annual Sampling Event 2016.
Risks were calculated using the model derived by Johnson & Ettinger (1991), as discussed in Section 3.3.1 of the April 2013 Revised Risk Management Plan.

TABLE 5
EVALUATION OF VOCS IN WATER AT PARCELS IN THE NEIGHBORHOOD
Whirlpool Facility - Fort Smith, Arkansas

Chem Group	Chemical	CASRN	Parcel 1				Parcel 2				Parcel 3				Parcel 4		Parcel 6	
			7.5 ft bgs		14 ft bgs		5.5 ft bgs		10.5 ft bgs		5.5 ft bgs		11 ft bgs		12.5 ft bgs		12 ft bgs	
			VP-5		VP-6		VP-7		VP-8		VP-9		VP-10		VP-12		MW-55R	
			Perched Water		Perched Water		Perched Water		Perched Water		Soil Vapor		Perched Water		Groundwater		Groundwater	
			Risk	HQ	Risk	HQ	Risk	HQ	Risk	HQ	Risk	HQ	Risk	HQ	Risk	HQ	Risk	HQ
VOC	Acetone	67-64-1		1.2E-06		4.6E-07		1.3E-06		8.5E-07						1.7E-08		
VOC	Benzene	71-43-2	6.97E-09	7.0E-05	7.8E-09	7.8E-05	4.7E-09	4.6E-05	2.4E-09	2.4E-05			8.0E-10	8.0E-06	5.7E-10	5.7E-06		
VOC	2-Butanone	78-93-3		1.5E-06		4.5E-07		7.8E-07		9.0E-07								
VOC	Carbon Disulfide	75-15-0		8.4E-06		1.1E-05												
VOC	Chloroform	67-66-3	7.5E-09	1.5E-05									8.5E-09	1.7E-05	2.7E-09	5.6E-06	2.6E-09	5.4E-06
VOC	Chloromethane	74-87-3						1.1E-05										
VOC	1,2-Dichloroethane	107-06-2																
VOC	1,1-Dichloroethene	75-35-4										8.5E-05		2.1E-05				
VOC	cis-1,2-Dichloroethene	156-59-2																
VOC	trans-1,2-Dichloroethene	156-60-5																
VOC	2-Hexanone	591-78-6		1.0E-04						3.0E-05								
VOC	4-Methyl-2-pentanone	108-10-1		2.7E-07		8.3E-08		2.8E-07		1.1E-07								
VOC	Methylene Chloride	75-09-2	9.0E-12	1.4E-06	2.7E-12	4.1E-07			3.1E-12	4.7E-07			4.1E-12	6.3E-07	3.8E-12	5.8E-07		
VOC	Tetrachloroethene	127-18-4									1.6E-09	3.6E-04						
VOC	Toluene	108-88-3		1.3E-07		6.0E-08				1.1E-07				1.1E-07				
VOC	Trichloroethene	79-01-6							8.9E-09	1.9E-03	3.2E-05	6.7E+00	1.0E-06	2.2E-01	2.0E-09	4.2E-04	1.2E-08	2.4E-03
VOC	Vinyl Chloride	75-01-4									1.1E-07	1.7E-04	8.0E-09	1.2E-05				
	Cumulative Risk and HI:		1E-08	2E-04	8E-09	9E-05	5E-09	6E-05	1E-08	2E-03	3E-05	**7E+00**	1E-06	2E-01	5E-09	4E-04	1E-08	2E-03

Notes:
Only COCs detected in the Annual Sampling Event 2016 samples at locations listed on the table are shown.
Risk and HQ estimates were not calculated for detected chemicals with inadequate toxicity or physical/chemical parameters or where chemical concentrations were non-detect.
Risks based on soil vapor data were calculated using USEPA's default attenuation factor for subslab gas to indoor air of 0.03, as discussed in Section 6.8.2 of the April 2013 Revised Risk Management Plan.
Risks based on concentrations measured in groundwater were calculated using the model derived by Johnson & Ettinger (1991), as discussed in Section 3.3.1 of the April 2013 Revised Risk Management Plan.
Risks based on concentrations measured in water from the soil vapor ports or shallow groundwater were calculated using the same approach used for groundwater, except the depth was assumed to be the depth of the port or the depth of the screen, respectively, as discussed in Section 3 of the Annual 2016 Vapor Intrusion Report.
Upper-bound cumulative cancer risk and HI estimates in excess of Arkansas Department of Environmental Quality (ADEQ)'s RME cumulative cancer and noncancer risk limits (1E-4 and 1, respectively) are shaded in bold.

TABLE 6
EVALUATION OF VOCS IN WATER AT PARCEL 5 (SOUTH OF NEIGHBORHOOD)
Whirlpool Facility - Fort Smith, Arkansas

Chem Group	Chemical	CASRN	7.5 ft bgs MW-178 Shallow Groundwater	
			Risk	HQ
VOC	1,1-Dichloroethene	75-35-4		2.7E-06
VOC	cis-1,2-Dichloroethene	156-59-2		
VOC	Trichloroethene	79-01-6	1.2E-08	2.5E-03

Cumulative Risk and HI:	1E-08	2E-03

Notes:

Only COCs detected in the Annual Sampling Event 2016 samples at locations listed on the table are shown.

Risk and HQ estimates were not calculated for detected chemicals with inadequate toxicity or physical/chemical parameters or where chemical concentrations were non-detect.

Risks based on concentrations measured in groundwater were calculated using the model derived by Johnson & Ettinger (1991), as discussed in Section 3.3.1 of the April 2013 Revised Risk Management Plan.

Risks based on concentrations measured in shallow groundwater were calculated using the same approach used for groundwater, except the depth was assumed to be the depth of the screen, as discussed in Section 3 of the Annual 2016 Vapor Intrusion Report.

Cumulative cancer risk and HI estimates were below Arkansas Department of Environmental Quality (ADEQ)'s risk limits (1E-4 and 1, respectively).

Figures



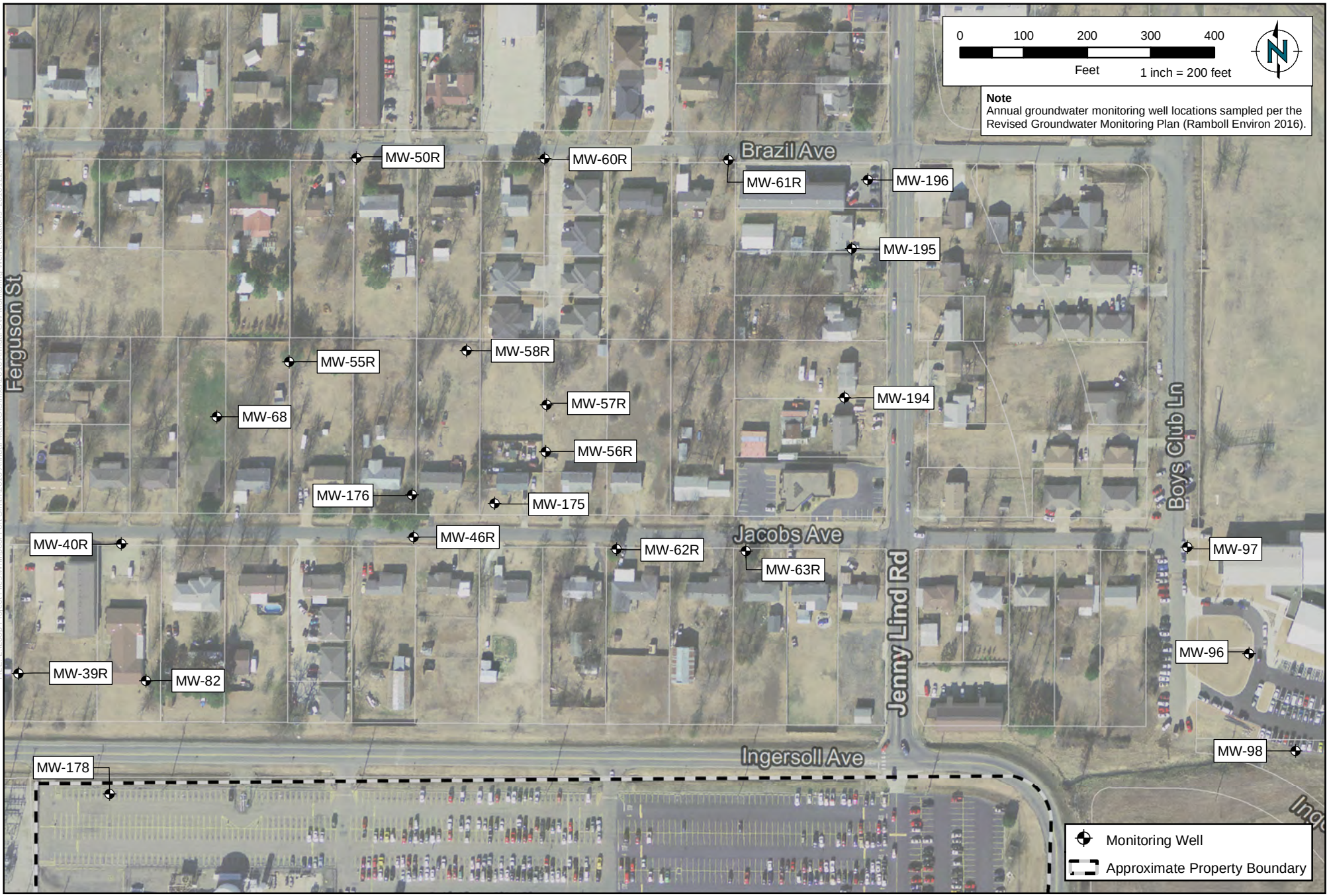
RAMBOLL ENVIRON

SHALLOW GROUNDWATER MONITORING WELLS AND VAPOR POINTS SAMPLED DURING 2016 ANNUAL SAMPLING

Whirlpool Facility - Fort Smith, Arkansas

Figure 1

DRAFTED BY: FK | DATE: 12/27/2016 | PROJECT: 3437500Q



FILE: L:\Loop Project Files\Whirlpool Fort Smith\2016 Annual M&RG\Smxd\2016 Annual GW Monitoring Well Locations_20161227.mxd

RAMBOLL ENVIRON

DRAFTED BY: FK | DATE: 12/28/2016

GROUNDWATER MONITORING WELL LOCATIONS

Whirlpool Facility - Fort Smith, Arkansas

Figure 2

PROJECT: 3437500Q

Appendix A
Laboratory Analytical Data

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

November 28, 2016

Tamara Gleason
Ramboll Environ
250 Monroe Ave. NW
Ste 400
Grand Rapids, MI 49503

RE: Project: FORT SMITH, AR
Pace Project No.: 60231721

Dear Tamara Gleason:
Enclosed are the analytical results for sample(s) received by the laboratory on November 08, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Colleen Clyne
colleen.clyne@pacelabs.com
Project Manager

Enclosures

cc: Johanna Pavlowsky, Ramboll Environ

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

CERTIFICATIONS

Project: FORT SMITH, AR
Pace Project No.: 60231721

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219
WY STR Certification #: 2456.01
Arkansas Certification #: 15-016-0
Illinois Certification #: 003097
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407
Utah Certification #: KS00021
Kansas Field Laboratory Accreditation: # E-92587
Missouri Certification: 10070

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

SAMPLE SUMMARY

Project: FORT SMITH, AR
Pace Project No.: 60231721

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60231721001	**MW-68-201611**	Water	11/07/16 14:00	11/08/16 08:45
60231721002	**MW-63R-201611**	Water	11/07/16 15:15	11/08/16 08:45
60231721003	**MW-55R-201611**	Water	11/07/16 15:03	11/08/16 08:45
60231721004	**MW-39R-201611**	Water	11/07/16 16:18	11/08/16 08:45
60231721005	**MW-40R-201611**	Water	11/07/16 16:35	11/08/16 08:45
60231721006	**MW-62R-201611**	Water	11/07/16 13:15	11/08/16 08:45
60231721007	**MW-50R-201611**	Water	11/07/16 16:45	11/08/16 08:45
60231721008	**TB-01-201611**	Water	11/07/16 13:15	11/08/16 08:45

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

SAMPLE ANALYTE COUNT

Project: FORT SMITH, AR
Pace Project No.: 60231721

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60231721001	**MW-68-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231721002	**MW-63R-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231721003	**MW-55R-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231721004	**MW-39R-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231721005	**MW-40R-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231721006	**MW-62R-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231721007	**MW-50R-201611**	EPA 6010	NDJ	1	PASI-K
		EPA 5030B/8260	PGH	38	PASI-K
		SM 3500-Fe B#4	TJG	1	PASI-K
		SM 4500-S-2 D	HMM	1	PASI-K
		EPA 300.0	OL	1	PASI-K
		EPA 353.2	LDB	3	PASI-K
		SM 5310C	JMC1	1	PASI-K
60231721008	**TB-01-201611**	EPA 5030B/8260	PGH	38	PASI-K

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231721

Method: **EPA 6010**
Description: 6010 MET ICP
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
1 sample was analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231721

Method: **EPA 5030B/8260**
Description: 8260 MSV
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
8 samples were analyzed for EPA 5030B/8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231721

Method: **SM 3500-Fe B#4**
Description: Iron, Ferric (Calculation)
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
1 sample was analyzed for SM 3500-Fe B#4. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231721

Method: **SM 4500-S-2 D**
Description: 4500S2D Sulfide, Total
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
1 sample was analyzed for SM 4500-S-2 D. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231721

Method: **EPA 300.0**
Description: 300.0 IC Anions 28 Days
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
1 sample was analyzed for EPA 300.0. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231721

Method: **EPA 353.2**
Description: 353.2 Nitrogen, NO2/NO3 unpres
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
1 sample was analyzed for EPA 353.2. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231721

Method: **SM 5310C**
Description: 5310C TOC
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
1 sample was analyzed for SM 5310C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

QC Batch: 454642

B: Analyte was detected in the associated method blank.
- BLANK for HBN 454642 [WETA/423 (Lab ID: 1861911)
  - Total Organic Carbon

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 454642

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60231927001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- MS (Lab ID: 1861913)
  - Total Organic Carbon

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231721

Sample: MW-68-201611 **Lab ID: 60231721001** Collected: 11/07/16 14:00 Received: 11/08/16 08:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/14/16 02:19	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/14/16 02:19	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 02:19	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/14/16 02:19	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/14/16 02:19	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 02:19	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 02:19	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 02:19	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 02:19	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 02:19	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/14/16 02:19	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/14/16 02:19	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 02:19	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 02:19	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 02:19	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 02:19	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/14/16 02:19	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 02:19	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 02:19	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 02:19	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 02:19	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 02:19	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 02:19	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 02:19	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 02:19	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 02:19	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 02:19	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 02:19	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 02:19	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 02:19	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 02:19	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/14/16 02:19	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/14/16 02:19	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 02:19	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	77-130		1		11/14/16 02:19	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	81-127		1		11/14/16 02:19	17060-07-0	
Toluene-d8 (S)	98	%	80-120		1		11/14/16 02:19	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/14/16 02:19		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231721

Sample: MW-63R-201611 **Lab ID: 60231721002** Collected: 11/07/16 15:15 Received: 11/08/16 08:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/14/16 02:33	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/14/16 02:33	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 02:33	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/14/16 02:33	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/14/16 02:33	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 02:33	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 02:33	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 02:33	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 02:33	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 02:33	75-00-3	
Chloroform	**0.21J**	ug/L	1.0	0.14	1		11/14/16 02:33	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/14/16 02:33	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 02:33	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 02:33	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 02:33	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 02:33	75-35-4	
cis-1,2-Dichloroethene	**0.21J**	ug/L	1.0	0.080	1		11/14/16 02:33	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 02:33	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 02:33	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 02:33	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 02:33	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 02:33	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 02:33	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 02:33	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 02:33	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 02:33	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 02:33	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 02:33	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 02:33	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 02:33	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 02:33	79-00-5	
Trichloroethene	**2.9**	ug/L	1.0	0.17	1		11/14/16 02:33	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/14/16 02:33	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 02:33	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	96	%	77-130		1		11/14/16 02:33	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	81-127		1		11/14/16 02:33	17060-07-0	
Toluene-d8 (S)	103	%	80-120		1		11/14/16 02:33	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/14/16 02:33		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231721

Sample: MW-55R-201611 **Lab ID: 60231721003** Collected: 11/07/16 15:03 Received: 11/08/16 08:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/14/16 02:47	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/14/16 02:47	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 02:47	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/14/16 02:47	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/14/16 02:47	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 02:47	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 02:47	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 02:47	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 02:47	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 02:47	75-00-3	
Chloroform	**0.22J**	ug/L	1.0	0.14	1		11/14/16 02:47	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/14/16 02:47	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 02:47	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 02:47	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 02:47	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 02:47	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/14/16 02:47	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 02:47	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 02:47	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 02:47	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 02:47	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 02:47	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 02:47	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 02:47	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 02:47	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 02:47	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 02:47	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 02:47	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 02:47	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 02:47	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 02:47	79-00-5	
Trichloroethene	**3.1**	ug/L	1.0	0.17	1		11/14/16 02:47	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/14/16 02:47	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 02:47	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	102	%	77-130		1		11/14/16 02:47	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	81-127		1		11/14/16 02:47	17060-07-0	
Toluene-d8 (S)	97	%	80-120		1		11/14/16 02:47	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/14/16 02:47		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231721

Sample: MW-39R-201611 **Lab ID: 60231721004** Collected: 11/07/16 16:18 Received: 11/08/16 08:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/14/16 03:02	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/14/16 03:02	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 03:02	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/14/16 03:02	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/14/16 03:02	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 03:02	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 03:02	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 03:02	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 03:02	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 03:02	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/14/16 03:02	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/14/16 03:02	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 03:02	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 03:02	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 03:02	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 03:02	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/14/16 03:02	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 03:02	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 03:02	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 03:02	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 03:02	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 03:02	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 03:02	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 03:02	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 03:02	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 03:02	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 03:02	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 03:02	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 03:02	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 03:02	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 03:02	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/14/16 03:02	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/14/16 03:02	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 03:02	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	99	%	77-130		1		11/14/16 03:02	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	81-127		1		11/14/16 03:02	17060-07-0	
Toluene-d8 (S)	100	%	80-120		1		11/14/16 03:02	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/14/16 03:02		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231721

Sample: MW-40R-201611 **Lab ID: 60231721005** Collected: 11/07/16 16:35 Received: 11/08/16 08:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/14/16 03:16	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/14/16 03:16	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 03:16	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/14/16 03:16	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/14/16 03:16	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 03:16	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 03:16	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 03:16	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 03:16	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 03:16	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/14/16 03:16	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/14/16 03:16	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 03:16	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 03:16	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 03:16	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 03:16	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/14/16 03:16	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 03:16	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 03:16	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 03:16	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 03:16	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 03:16	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 03:16	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 03:16	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 03:16	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 03:16	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 03:16	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 03:16	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 03:16	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 03:16	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 03:16	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/14/16 03:16	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/14/16 03:16	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 03:16	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	77-130		1		11/14/16 03:16	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	81-127		1		11/14/16 03:16	17060-07-0	
Toluene-d8 (S)	97	%	80-120		1		11/14/16 03:16	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/14/16 03:16		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231721

Sample: MW-62R-201611 **Lab ID: 60231721006** Collected: 11/07/16 13:15 Received: 11/08/16 08:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/14/16 03:31	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/14/16 03:31	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 03:31	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/14/16 03:31	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/14/16 03:31	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 03:31	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 03:31	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 03:31	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 03:31	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 03:31	75-00-3	
Chloroform	**0.27J**	ug/L	1.0	0.14	1		11/14/16 03:31	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/14/16 03:31	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 03:31	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 03:31	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 03:31	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 03:31	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/14/16 03:31	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 03:31	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 03:31	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 03:31	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 03:31	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 03:31	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 03:31	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 03:31	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 03:31	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 03:31	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 03:31	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 03:31	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 03:31	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 03:31	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 03:31	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/14/16 03:31	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/14/16 03:31	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 03:31	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	77-130		1		11/14/16 03:31	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	81-127		1		11/14/16 03:31	17060-07-0	
Toluene-d8 (S)	98	%	80-120		1		11/14/16 03:31	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/14/16 03:31		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231721

Sample: MW-50R-201611 **Lab ID: 60231721007** Collected: 11/07/16 16:45 Received: 11/08/16 08:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	**4840**	ug/L	50.0	8.8	1	11/11/16 11:45	11/14/16 16:31	7439-89-6	
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/14/16 03:45	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/14/16 03:45	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 03:45	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/14/16 03:45	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/14/16 03:45	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 03:45	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 03:45	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 03:45	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 03:45	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 03:45	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/14/16 03:45	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/14/16 03:45	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 03:45	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 03:45	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 03:45	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 03:45	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/14/16 03:45	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 03:45	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 03:45	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 03:45	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 03:45	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 03:45	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 03:45	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 03:45	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 03:45	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 03:45	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 03:45	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 03:45	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 03:45	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 03:45	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 03:45	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/14/16 03:45	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/14/16 03:45	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 03:45	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	103	%	77-130		1		11/14/16 03:45	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	81-127		1		11/14/16 03:45	17060-07-0	
Toluene-d8 (S)	98	%	80-120		1		11/14/16 03:45	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/14/16 03:45		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4								
Iron, Ferric	**4.7**	mg/L	0.20		1		11/15/16 00:00	7439-89-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231721

Sample: MW-50R-201611 **Lab ID: 60231721007** Collected: 11/07/16 16:45 Received: 11/08/16 08:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D								
Sulfide, Total	ND	mg/L	0.050	0.019	1		11/09/16 14:53	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	**15.1**	mg/L	1.0	0.15	1		11/16/16 14:34	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	ND	mg/L	0.10	0.012	1		11/09/16 08:58		
Nitrogen, Nitrite	**0.013J**	mg/L	0.10	0.010	1		11/09/16 08:58		
Nitrogen, NO2 plus NO3	ND	mg/L	0.10	0.012	1		11/09/16 08:58		
5310C TOC	Analytical Method: SM 5310C								
Total Organic Carbon	**0.41J**	mg/L	1.0	0.054	1		11/12/16 13:13	7440-44-0	B

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231721

Sample: TB-01-201611 **Lab ID: 60231721008** Collected: 11/07/16 13:15 Received: 11/08/16 08:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/14/16 02:04	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/14/16 02:04	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 02:04	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/14/16 02:04	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/14/16 02:04	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 02:04	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 02:04	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 02:04	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 02:04	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 02:04	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/14/16 02:04	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/14/16 02:04	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 02:04	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 02:04	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 02:04	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 02:04	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/14/16 02:04	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 02:04	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 02:04	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 02:04	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 02:04	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 02:04	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 02:04	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 02:04	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 02:04	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 02:04	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 02:04	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 02:04	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 02:04	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 02:04	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 02:04	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/14/16 02:04	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/14/16 02:04	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 02:04	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	99	%	77-130		1		11/14/16 02:04	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	81-127		1		11/14/16 02:04	17060-07-0	
Toluene-d8 (S)	100	%	80-120		1		11/14/16 02:04	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/14/16 02:04		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231721

QC Batch: 454539 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET
Associated Lab Samples: 60231721007

METHOD BLANK: 1861302 Matrix: Water
Associated Lab Samples: 60231721007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron	ug/L	ND	50.0	8.8	11/15/16 12:51	

LABORATORY CONTROL SAMPLE: 1861303

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron	ug/L	10000	10000	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1861304 1861305

Parameter	Units	60231955004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron	ug/L	5940	10000	10000	15500	15000	96	91	75-125	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1861306 1861307

Parameter	Units	60231848025 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron	ug/L	22.7J	10000	10000	9390	9720	94	97	75-125	3	20	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231721

QC Batch: 454535 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60231721001, 60231721002, 60231721003, 60231721004, 60231721005, 60231721006, 60231721007, 60231721008

METHOD BLANK: 1861274 Matrix: Water
Associated Lab Samples: 60231721001, 60231721002, 60231721003, 60231721004, 60231721005, 60231721006, 60231721007, 60231721008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	0.11	11/14/16 01:50	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.15	11/14/16 01:50	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.20	11/14/16 01:50	
1,1-Dichloroethane	ug/L	ND	1.0	0.050	11/14/16 01:50	
1,1-Dichloroethene	ug/L	ND	1.0	0.20	11/14/16 01:50	
1,2-Dichloroethane	ug/L	ND	1.0	0.12	11/14/16 01:50	
1,2-Dichloropropane	ug/L	ND	1.0	0.16	11/14/16 01:50	
2-Butanone (MEK)	ug/L	ND	10.0	0.59	11/14/16 01:50	
2-Hexanone	ug/L	ND	10.0	1.2	11/14/16 01:50	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	0.42	11/14/16 01:50	
Acetone	ug/L	ND	10.0	1.9	11/14/16 01:50	
Benzene	ug/L	ND	1.0	0.060	11/14/16 01:50	
Bromodichloromethane	ug/L	ND	1.0	0.19	11/14/16 01:50	
Bromoform	ug/L	ND	1.0	0.070	11/14/16 01:50	
Bromomethane	ug/L	ND	5.0	0.16	11/14/16 01:50	
Carbon disulfide	ug/L	ND	5.0	0.12	11/14/16 01:50	
Carbon tetrachloride	ug/L	ND	1.0	0.18	11/14/16 01:50	
Chlorobenzene	ug/L	ND	1.0	0.21	11/14/16 01:50	
Chloroethane	ug/L	ND	1.0	0.15	11/14/16 01:50	
Chloroform	ug/L	ND	1.0	0.14	11/14/16 01:50	
Chloromethane	ug/L	ND	1.0	0.080	11/14/16 01:50	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.080	11/14/16 01:50	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.14	11/14/16 01:50	
Dibromochloromethane	ug/L	ND	1.0	0.21	11/14/16 01:50	
Ethylbenzene	ug/L	ND	1.0	0.18	11/14/16 01:50	
Methylene chloride	ug/L	ND	1.0	0.15	11/14/16 01:50	
Styrene	ug/L	ND	1.0	0.12	11/14/16 01:50	
Tetrachloroethene	ug/L	ND	1.0	0.10	11/14/16 01:50	
Toluene	ug/L	ND	1.0	0.17	11/14/16 01:50	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.20	11/14/16 01:50	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.12	11/14/16 01:50	
Trichloroethene	ug/L	ND	1.0	0.17	11/14/16 01:50	
Vinyl chloride	ug/L	ND	1.0	0.13	11/14/16 01:50	
Xylene (Total)	ug/L	ND	3.0	0.42	11/14/16 01:50	
1,2-Dichloroethane-d4 (S)	%	90	81-127		11/14/16 01:50	
4-Bromofluorobenzene (S)	%	98	77-130		11/14/16 01:50	
Toluene-d8 (S)	%	98	80-120		11/14/16 01:50	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231721

LABORATORY CONTROL SAMPLE: 1861275

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	20.7	104	81-116	
1,1,2,2-Tetrachloroethane	ug/L	20	20.5	103	72-117	
1,1,2-Trichloroethane	ug/L	20	21.1	105	79-108	
1,1-Dichloroethane	ug/L	20	20.5	102	83-117	
1,1-Dichloroethene	ug/L	20	20.3	101	74-114	
1,2-Dichloroethane	ug/L	20	19.3	97	72-116	
1,2-Dichloropropane	ug/L	20	20.1	100	80-120	
2-Butanone (MEK)	ug/L	100	86.3	86	67-129	
2-Hexanone	ug/L	100	96.7	97	70-128	
4-Methyl-2-pentanone (MIBK)	ug/L	100	91.6	92	80-120	
Acetone	ug/L	100	79.7	80	56-142	
Benzene	ug/L	20	21.1	106	79-116	
Bromodichloromethane	ug/L	20	21.4	107	80-120	
Bromoform	ug/L	20	19.8	99	73-114	
Bromomethane	ug/L	20	15.6	78	49-153	
Carbon disulfide	ug/L	20	19.5	97	82-121	
Carbon tetrachloride	ug/L	20	19.5	97	80-116	
Chlorobenzene	ug/L	20	20.1	100	80-120	
Chloroethane	ug/L	20	21.4	107	67-124	
Chloroform	ug/L	20	19.8	99	79-120	
Chloromethane	ug/L	20	15.9	80	10-192	
cis-1,2-Dichloroethene	ug/L	20	19.5	97	80-120	
cis-1,3-Dichloropropene	ug/L	20	18.9	94	80-120	
Dibromochloromethane	ug/L	20	22.1	110	80-120	
Ethylbenzene	ug/L	20	19.8	99	80-120	
Methylene chloride	ug/L	20	17.3	86	80-120	
Styrene	ug/L	20	21.0	105	80-120	
Tetrachloroethene	ug/L	20	21.7	109	80-120	
Toluene	ug/L	20	22.0	110	80-120	
trans-1,2-Dichloroethene	ug/L	20	20.0	100	78-108	
trans-1,3-Dichloropropene	ug/L	20	19.2	96	85-120	
Trichloroethene	ug/L	20	19.1	96	76-114	
Vinyl chloride	ug/L	20	19.4	97	69-129	
Xylene (Total)	ug/L	60	61.3	102	80-120	
1,2-Dichloroethane-d4 (S)	%			97	81-127	
4-Bromofluorobenzene (S)	%			97	77-130	
Toluene-d8 (S)	%			104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1861276 1861277

Parameter	Units	60231721006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	21.4	21.6	107	108	70-135	1	12	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	19.7	19.6	99	98	54-136	0	15	
1,1,2-Trichloroethane	ug/L	ND	20	20	19.4	18.7	97	94	70-113	4	15	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231721

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1861276 1861277

Parameter	Units	60231721006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethane	ug/L	ND	20	20	21.6	21.1	108	106	80-122	2	13	
1,1-Dichloroethene	ug/L	ND	20	20	20.8	22.3	104	111	73-118	7	14	
1,2-Dichloroethane	ug/L	ND	20	20	19.5	19.9	98	100	54-137	2	41	
1,2-Dichloropropane	ug/L	ND	20	20	20.6	20.5	103	103	77-116	0	12	
2-Butanone (MEK)	ug/L	ND	100	100	83.1	82.4	83	82	30-127	1	18	
2-Hexanone	ug/L	ND	100	100	85.0	87.3	85	87	44-124	3	18	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	100	86.7	90.5	87	90	70-124	4	15	
Acetone	ug/L	ND	100	100	79.1	85.5	78	84	10-132	8	20	
Benzene	ug/L	ND	20	20	21.2	21.8	106	109	37-151	3	40	
Bromodichloromethane	ug/L	ND	20	20	20.9	20.6	104	103	76-118	1	11	
Bromoform	ug/L	ND	20	20	19.8	19.0	99	95	64-113	4	15	
Bromomethane	ug/L	ND	20	20	15.3	17.7	77	89	41-154	14	43	
Carbon disulfide	ug/L	ND	20	20	20.5	21.3	103	106	80-139	4	17	
Carbon tetrachloride	ug/L	ND	20	20	21.5	21.8	107	109	75-127	1	13	
Chlorobenzene	ug/L	ND	20	20	21.0	20.6	105	103	79-113	2	13	
Chloroethane	ug/L	ND	20	20	21.8	22.1	109	110	53-154	1	20	
Chloroform	ug/L	0.27J	20	20	20.1	20.4	99	101	74-115	2	12	
Chloromethane	ug/L	ND	20	20	15.3	21.6	77	108	33-169	34	72	
cis-1,2-Dichloroethene	ug/L	ND	20	20	19.3	20.6	96	103	58-139	7	40	
cis-1,3-Dichloropropene	ug/L	ND	20	20	16.0	15.8	80	79	70-120	2	14	
Dibromochloromethane	ug/L	ND	20	20	20.3	19.8	102	99	77-114	2	13	
Ethylbenzene	ug/L	ND	20	20	21.4	22.6	107	113	29-151	5	45	
Methylene chloride	ug/L	ND	20	20	18.4	19.4	92	97	76-120	5	13	
Styrene	ug/L	ND	20	20	20.3	20.9	102	105	66-127	3	15	
Tetrachloroethene	ug/L	ND	20	20	21.8	20.9	109	104	77-118	4	14	
Toluene	ug/L	ND	20	20	21.3	21.5	106	108	37-147	1	43	
trans-1,2-Dichloroethene	ug/L	ND	20	20	20.9	21.4	104	107	69-125	2	16	
trans-1,3-Dichloropropene	ug/L	ND	20	20	16.1	15.6	81	78	71-118	4	13	
Trichloroethene	ug/L	ND	20	20	20.7	20.5	104	103	71-116	1	14	
Vinyl chloride	ug/L	ND	20	20	18.8	23.1	94	116	65-142	20	22	
Xylene (Total)	ug/L	ND	60	60	64.0	63.7	107	106	27-156	0	46	
1,2-Dichloroethane-d4 (S)	%						96	99	81-127			
4-Bromofluorobenzene (S)	%						99	99	77-130			
Toluene-d8 (S)	%						101	101	80-120			
Preservation pH		1.0			1.0	1.0				0		

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231721

QC Batch: 454067
QC Batch Method: SM 4500-S-2 D
Analysis Method: SM 4500-S-2 D
Analysis Description: 4500S2D Sulfide, Total
Associated Lab Samples: 60231721007

METHOD BLANK: 1859176
Matrix: Water
Associated Lab Samples: 60231721007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide, Total	mg/L	ND	0.050	0.019	11/09/16 14:51	

LABORATORY CONTROL SAMPLE: 1859177

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	.5	0.52	104	80-120	

MATRIX SPIKE SAMPLE: 1859178

Parameter	Units	60231744004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	ND	.5	0.56	111	75-125	

SAMPLE DUPLICATE: 1859179

Parameter	Units	60231744002 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Total	mg/L	ND	ND		20	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231721

QC Batch: 455173 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 60231721007

METHOD BLANK: 1863789 Matrix: Water
Associated Lab Samples: 60231721007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfate	mg/L	ND	1.0	0.15	11/16/16 10:10	

LABORATORY CONTROL SAMPLE: 1863790

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

MATRIX SPIKE SAMPLE: 1863793

Parameter	Units	60231506002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	1100	500	1640	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1863834 1863835

Parameter	Units	60231501003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	7570	5000	5000	13000	13300	109	115	80-120	3	15	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231721

QC Batch: 454043
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Associated Lab Samples: 60231721007

METHOD BLANK: 1859059 Matrix: Water
Associated Lab Samples: 60231721007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.012	11/09/16 08:54	
Nitrogen, Nitrite	mg/L	ND	0.10	0.010	11/09/16 08:54	
Nitrogen, NO2 plus NO3	mg/L	ND	0.10	0.012	11/09/16 08:54	

LABORATORY CONTROL SAMPLE: 1859060

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.1	108	85-115	
Nitrogen, Nitrite	mg/L	1	0.96	96	90-110	
Nitrogen, NO2 plus NO3	mg/L	2	2.0	102	90-110	

MATRIX SPIKE SAMPLE: 1859061

Parameter	Units	60231670001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	13.5	10	23.9	104	85-115	
Nitrogen, Nitrite	mg/L	ND	10	10.5	103	90-110	
Nitrogen, NO2 plus NO3	mg/L	13.6	20	34.4	104	90-110	

SAMPLE DUPLICATE: 1859062

Parameter	Units	60231721007 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Nitrate	mg/L	ND	ND		20	
Nitrogen, Nitrite	mg/L	0.013J	ND		20	
Nitrogen, NO2 plus NO3	mg/L	ND	ND		20	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231721

QC Batch: 454642 Analysis Method: SM 5310C
QC Batch Method: SM 5310C Analysis Description: 5310C Total Organic Carbon
Associated Lab Samples: 60231721007

METHOD BLANK: 1861911 Matrix: Water
Associated Lab Samples: 60231721007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	0.085J	1.0	0.054	11/12/16 09:38	

LABORATORY CONTROL SAMPLE: 1861912

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	5	4.9	97	80-120	

MATRIX SPIKE SAMPLE: 1861913

Parameter	Units	60231927001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	1.4	5	4.5	62	80-120	M1

SAMPLE DUPLICATE: 1861914

Parameter	Units	60231927002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Organic Carbon	mg/L	1.4	1.4	4	25	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALIFIERS

Project: FORT SMITH, AR
Pace Project No.: 60231721

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-K	Pace Analytical Services - Kansas City

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: FORT SMITH, AR
Pace Project No.: 60231721

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60231721007	**MW-50R-201611**	EPA 3010	454539	EPA 6010	454595
60231721001	**MW-68-201611**	EPA 5030B/8260	454535		
60231721002	**MW-63R-201611**	EPA 5030B/8260	454535		
60231721003	**MW-55R-201611**	EPA 5030B/8260	454535		
60231721004	**MW-39R-201611**	EPA 5030B/8260	454535		
60231721005	**MW-40R-201611**	EPA 5030B/8260	454535		
60231721006	**MW-62R-201611**	EPA 5030B/8260	454535		
60231721007	**MW-50R-201611**	EPA 5030B/8260	454535		
60231721008	**TB-01-201611**	EPA 5030B/8260	454535		
60231721007	**MW-50R-201611**	SM 3500-Fe B#4	456110		
60231721007	**MW-50R-201611**	SM 4500-S-2 D	454067		
60231721007	**MW-50R-201611**	EPA 300.0	455173		
60231721007	**MW-50R-201611**	EPA 353.2	454043		
60231721007	**MW-50R-201611**	SM 5310C	454642		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical®
www.pacelabs.com

Sample Condition Upon Receipt

WO# : 60231721

60231721

Client Name: Environ

Courier: FedEx ☒ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☐ Client ☐ Other ☐

Tracking #: 8103 0090 9826 Pace Shipping Label Used? Yes ☐ No ☒

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

Packing Material: Bubble Wrap ☒ Bubble Bags ☐ Foam ☐ None ☐ Other ☐

Thermometer Used: CF +0.7 / CF -0.5 T-266 / T-239 **Type of Ice:** (Wet) Blue None

Cooler Temperature (°C): **As-read** 1.2 **Corr. Factor** CF +0.7 CF -0.5 **Corrected** 1.9

Date and initials of person examining contents: dhs

Temperature should be above freezing to 6°C

Chain of Custody present:	☒Yes ☐No ☐N/A	
Chain of Custody relinquished:	☒Yes ☐No ☐N/A	
Samples arrived within holding time:	☒Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☒Yes ☐No ☐N/A	NO_2 NO_3
Rush Turn Around Time requested:	☐Yes ☒No ☐N/A	
Sufficient volume:	☒Yes ☐No ☐N/A	
Correct containers used:	☒Yes ☐No ☐N/A	
Pace containers used:	☒Yes ☐No ☐N/A	
Containers intact:	☒Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☒N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☒N/A	
Sample labels match COC: Date / time / ID / analyses	☒Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: WATER	☐Yes ☐No ☒N/A	
Containers requiring pH preservation in compliance? (HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO)	☒Yes ☐No ☐N/A	
Cyanide water sample checks: ☒N/A Lead acetate strip turns dark? (Record only) Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No ☐Yes ☐No	
Trip Blank present:	☒Yes ☐No ☐N/A	one trip for two projects.
Headspace in VOA vials (>6mm):	☐Yes ☒No ☐N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☒N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☒N/A	

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

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: Colleen Clayne Date: 11/09/2016

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: of

Section A Required Client Information:

Company:	Environ
Address:	7500 College Blvd., Ste. 925
	Overland Park, KS 66210
Email To:	wstonestreet@ramboll.com
Phone: 913-553-5926	Fax:
Requested Due Date/TAT:	

Section B Required Project Information:

Report To:	Wendy Stonestreet
Copy To:	Tammy Gleason
Purchase Order No.:	NA
Project Name:	Fort Smith, AR
Project Number:	

Section C Invoice Information:

Attention:	Tammy Gleason
Company Name:	Environ
Address:	250 Monroe Ave. NW Grand Rapids
Pace Quote Reference:	Michigan, 49503
Pace Project Manager:	Colleen Clyne
Pace Profile #:	7444, line 1

REGULATORY AGENCY

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

Site Location STATE: AR

Section D Required Client Information

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

WES 68

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other NA OH+Zn Ac	Analysis Test (Y/N)	8260 VOCs	Sulfide	TOC	Sulfate	Nitrate, nitrite, unpres	6010-Iron	Ferric Iron calc. (send field Ferrous)					Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
																		Y/N	N	N	N	N	N	N	N						60231721
1	MW-18R-201611	WT	G	11/7/16	1400				3				X						X										N	3(DGH)
2	MW-63R-201611	WT	G	11/7/16	1515				3				X						X										N	
3	MW-55R-201611	WT	G	11/7/16	1503				3				X						X										N	
4	MW-39R-201611	WT	G	11/7/16	1618				3				X						X										N	
5	MW-40R-201611	WT	G	11/7/16	1635				3				X						X										N	
6	MW-62R-201611	WT	G	11/7/16	1315				6				X						X										N	MS/MSD 6(DGH)
7	MW-50R-201611	WT	G	11/7/16	1645				7	X	X	X	X				X		X	X	X	X	X	X					N	3(DGH) 1(AGBS) 1(BP3S) 1(BP3N) 1(VOA)
8	TB-01-201611	WT	G	11/7/16	—				2				X						X										N	2(DGH)
9																														
10																														
11																														
12																														

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
	Wendy Stonestreet / Ramboll	11/7/16	1830		11/8/16	845

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

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Wendy Stonestreet

SIGNATURE of SAMPLER: Wendy Stonestreet DATE Signed (MM/DD/YY): 11/7/2016

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

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

November 29, 2016

Tamara Gleason
Ramboll Environ
250 Monroe Ave. NW
Ste 400
Grand Rapids, MI 49503

RE: Project: FORT SMITH, AR
Pace Project No.: 60231848

Dear Tamara Gleason:
Enclosed are the analytical results for sample(s) received by the laboratory on November 09, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Revised Report Rev_1. Corrected sample IDs on samples 602318480003, 008, and 024 to match the chain of custody.

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

Sincerely,

Colleen Clyne

Colleen Clyne
colleen.clyne@pacelabs.com
Project Manager

Enclosures

cc: Johanna Pavlowsky, Ramboll Environ

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

CERTIFICATIONS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219
WY STR Certification #: 2456.01
Arkansas Certification #: 15-016-0
Illinois Certification #: 003097
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407
Utah Certification #: KS00021
Kansas Field Laboratory Accreditation: # E-92587
Missouri Certification: 10070

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

SAMPLE SUMMARY

Project: FORT SMITH, AR
Pace Project No.: 60231848

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60231848001	**MW-60R-201611**	Water	11/08/16 12:50	11/09/16 09:10
60231848002	**MW-46R-201611**	Water	11/08/16 13:50	11/09/16 09:10
60231848003	**MW-185-201611**	Water	11/08/16 16:40	11/09/16 09:10
60231848004	**IW-77-201611**	Water	11/08/16 09:29	11/09/16 09:10
60231848005	**IW-78-201611**	Water	11/08/16 11:37	11/09/16 09:10
60231848006	**MW-22-201611**	Water	11/08/16 13:16	11/09/16 09:10
60231848007	**MW-24-201611**	Water	11/08/16 16:35	11/09/16 09:10
60231848008	**MW-175-201611**	Water	11/08/16 12:40	11/09/16 09:10
60231848009	**DUP-07-201611**	Water	11/08/16 10:35	11/09/16 09:10
60231848010	**MW-57R-201611**	Water	11/08/16 10:35	11/09/16 09:10
60231848011	**MW-56R-201611**	Water	11/08/16 09:05	11/09/16 09:10
60231848012	**MW-176-201611**	Water	11/08/16 14:55	11/09/16 09:10
60231848013	**MW-87-201611**	Water	11/08/16 17:00	11/09/16 09:10
60231848014	**MW-89-201611**	Water	11/08/16 15:15	11/09/16 09:10
60231848015	**TMW-11-201611**	Water	11/08/16 09:27	11/09/16 09:10
60231848016	**DUP-05-201611**	Water	11/08/16 17:00	11/09/16 09:10
60231848017	**MW-190-201611**	Water	11/08/16 15:15	11/09/16 09:10
60231848018	**MW-98-201611**	Water	11/08/16 13:15	11/09/16 09:10
60231848019	**MW-191-201611**	Water	11/08/16 16:35	11/09/16 09:10
60231848020	**MW-97-201611**	Water	11/08/16 11:25	11/09/16 09:10
60231848021	**MW-96-201611**	Water	11/08/16 10:15	11/09/16 09:10
60231848022	**MW-184-201611**	Water	11/08/16 08:25	11/09/16 09:10
60231848023	**EB-02-201611**	Water	11/08/16 17:00	11/09/16 09:10
60231848024	**TMW-10-201611**	Water	11/08/16 09:17	11/09/16 09:10
60231848025	**ITMW-9-201611**	Water	11/08/16 16:00	11/09/16 09:10
60231848026	**TB-1-201611**	Water	11/08/16 08:25	11/09/16 09:10
60231848027	**TB-3-201611**	Water	11/08/16 08:25	11/09/16 09:10

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

SAMPLE ANALYTE COUNT

Project: FORT SMITH, AR
Pace Project No.: 60231848

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60231848001	**MW-60R-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848002	**MW-46R-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848003	**MW-185-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848004	**IW-77-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848005	**IW-78-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848006	**MW-22-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848007	**MW-24-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848008	**MW-175-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848009	**DUP-07-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848010	**MW-57R-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848011	**MW-56R-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848012	**MW-176-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848013	**MW-87-201611**	EPA 6010	NDJ	1	PASI-K
		EPA 5030B/8260	PGH	38	PASI-K
		SM 3500-Fe B#4	TJG	1	PASI-K
		SM 4500-S-2 D	HMM	1	PASI-K
		EPA 300.0	OL	1	PASI-K
		EPA 353.2	LDB	3	PASI-K
		SM 5310C	JMC1	1	PASI-K
60231848014	**MW-89-201611**	EPA 6010	NDJ	1	PASI-K
		EPA 5030B/8260	PGH	38	PASI-K
		SM 3500-Fe B#4	TJG	1	PASI-K
		SM 4500-S-2 D	HMM	1	PASI-K
		EPA 300.0	OL	1	PASI-K
		EPA 353.2	LDB	3	PASI-K
		SM 5310C	JMC1	1	PASI-K
60231848015	**TMW-11-201611**	EPA 6010	NDJ	1	PASI-K
		EPA 5030B/8260	PGH	38	PASI-K
		SM 3500-Fe B#4	TJG	1	PASI-K
		SM 4500-S-2 D	HMM	1	PASI-K
		EPA 300.0	OL	1	PASI-K
		EPA 353.2	LDB	3	PASI-K
		SM 5310C	JMC1	1	PASI-K
60231848016	**DUP-05-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848017	**MW-190-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848018	**MW-98-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848019	**MW-191-201611**	EPA 5030B/8260	PGH	38	PASI-K

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

SAMPLE ANALYTE COUNT

Project: FORT SMITH, AR
Pace Project No.: 60231848

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60231848020	**MW-97-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848021	**MW-96-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848022	**MW-184-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848023	**EB-02-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848024	**TMW-10-201611**	EPA 6010	NDJ	1	PASI-K
		EPA 5030B/8260	PGH	38	PASI-K
		SM 3500-Fe B#4	TJG	1	PASI-K
		SM 4500-S-2 D	HMM	1	PASI-K
		EPA 300.0	OL	1	PASI-K
		EPA 353.2	LDB	3	PASI-K
		SM 5310C	JMC1	1	PASI-K
60231848025	**ITMW-9-201611**	EPA 6010	NDJ	1	PASI-K
		EPA 5030B/8260	PGH	37	PASI-K
		SM 3500-Fe B#4	TJG	1	PASI-K
		SM 4500-S-2 D	HMM	1	PASI-K
		EPA 300.0	OL	1	PASI-K
		EPA 353.2	LDB	3	PASI-K
		SM 5310C	JMC1	1	PASI-K
60231848026	**TB-1-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848027	**TB-3-201611**	EPA 5030B/8260	PGH	38	PASI-K

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231848

Method: **EPA 6010**
Description: 6010 MET ICP
Client: Ramboll Environ_AR
Date: November 29, 2016

General Information:
5 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231848

Method: **EPA 5030B/8260**
Description: 8260 MSV
Client: Ramboll Environ_AR
Date: November 29, 2016

General Information:
27 samples were analyzed for EPA 5030B/8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

QC Batch: 454950

B: Analyte was detected in the associated method blank.
- BLANK for HBN 454950 [MSV/7922 (Lab ID: 1863034)
  - 1,1-Dichloroethene

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: 454968

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
- LCS (Lab ID: 1863068)
  - 1,1,2,2-Tetrachloroethane
  - Bromoform

QC Batch: 455179

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
- LCS (Lab ID: 1863805)
  - 1,1,2-Trichloroethane

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231848

Method: **EPA 5030B/8260**
Description: 8260 MSV
Client: Ramboll Environ_AR
Date: November 29, 2016

QC Batch: 454817

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

QC Batch: 454950

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60231848019

R1: RPD value was outside control limits.

- MSD (Lab ID: 1863037)
  - 1,1,2-Trichloroethane
  - Vinyl chloride
  - trans-1,3-Dichloropropene

QC Batch: 454968

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60231848025,60231925008

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MSD (Lab ID: 1863070)
  - Dibromochloromethane
  - cis-1,2-Dichloroethene

R1: RPD value was outside control limits.

- MSD (Lab ID: 1863070)
  - 1,1,1-Trichloroethane
  - 2-Butanone (MEK)
  - 4-Methyl-2-pentanone (MIBK)
  - Acetone
- MSD (Lab ID: 1863072)
  - 1,1,2,2-Tetrachloroethane

QC Batch: 455179

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231848

Method: **SM 3500-Fe B#4**
Description: Iron, Ferric (Calculation)
Client: Ramboll Environ_AR
Date: November 29, 2016

General Information:
5 samples were analyzed for SM 3500-Fe B#4. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231848

Method: **SM 4500-S-2 D**
Description: 4500S2D Sulfide, Total
Client: Ramboll Environ_AR
Date: November 29, 2016

General Information:
5 samples were analyzed for SM 4500-S-2 D. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231848

Method: **EPA 300.0**
Description: 300.0 IC Anions 28 Days
Client: Ramboll Environ_AR
Date: November 29, 2016

General Information:
5 samples were analyzed for EPA 300.0. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231848

Method: **EPA 353.2**
Description: 353.2 Nitrogen, NO2/NO3 unpres
Client: Ramboll Environ_AR
Date: November 29, 2016

General Information:
5 samples were analyzed for EPA 353.2. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 454180

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60231848025

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1859720)
  - Nitrogen, Nitrate

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231848

Method: **SM 5310C**
Description: 5310C TOC
Client: Ramboll Environ_AR
Date: November 29, 2016

General Information:
5 samples were analyzed for SM 5310C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

QC Batch: 454642

B: Analyte was detected in the associated method blank.
- BLANK for HBN 454642 [WETA/423 (Lab ID: 1861911)
  - Total Organic Carbon

QC Batch: 454961

B: Analyte was detected in the associated method blank.
- BLANK for HBN 454961 [WETA/424 (Lab ID: 1863050)
  - Total Organic Carbon

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 454642

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60231927001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- MS (Lab ID: 1861913)
  - Total Organic Carbon

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-60R-201611 **Lab ID: 60231848001** Collected: 11/08/16 12:50 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	**2.3J**	ug/L	10.0	1.9	1		11/14/16 04:00	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/14/16 04:00	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 04:00	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/14/16 04:00	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/14/16 04:00	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 04:00	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 04:00	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 04:00	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 04:00	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 04:00	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/14/16 04:00	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/14/16 04:00	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 04:00	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 04:00	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 04:00	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 04:00	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/14/16 04:00	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 04:00	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 04:00	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 04:00	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 04:00	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 04:00	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 04:00	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 04:00	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 04:00	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 04:00	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 04:00	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 04:00	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 04:00	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 04:00	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 04:00	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/14/16 04:00	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/14/16 04:00	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 04:00	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	98	%	77-130		1		11/14/16 04:00	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	81-127		1		11/14/16 04:00	17060-07-0	
Toluene-d8 (S)	97	%	80-120		1		11/14/16 04:00	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/14/16 04:00		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-46R-201611 **Lab ID: 60231848002** Collected: 11/08/16 13:50 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/14/16 04:44	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/14/16 04:44	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 04:44	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/14/16 04:44	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/14/16 04:44	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 04:44	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 04:44	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 04:44	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 04:44	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 04:44	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/14/16 04:44	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/14/16 04:44	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 04:44	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 04:44	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 04:44	107-06-2	
1,1-Dichloroethene	**1.2**	ug/L	1.0	0.20	1		11/14/16 04:44	75-35-4	
cis-1,2-Dichloroethene	**10.3**	ug/L	1.0	0.080	1		11/14/16 04:44	156-59-2	
trans-1,2-Dichloroethene	**0.35J**	ug/L	1.0	0.20	1		11/14/16 04:44	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 04:44	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 04:44	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 04:44	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 04:44	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 04:44	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 04:44	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 04:44	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 04:44	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 04:44	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 04:44	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 04:44	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 04:44	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 04:44	79-00-5	
Trichloroethene	**411**	ug/L	5.0	0.85	5		11/15/16 18:54	79-01-6	
Vinyl chloride	**0.79J**	ug/L	1.0	0.13	1		11/14/16 04:44	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 04:44	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	99	%	77-130		1		11/14/16 04:44	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	81-127		1		11/14/16 04:44	17060-07-0	
Toluene-d8 (S)	97	%	80-120		1		11/14/16 04:44	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/14/16 04:44		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-185-201611 **Lab ID: 60231848003** Collected: 11/08/16 16:40 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/14/16 04:29	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/14/16 04:29	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 04:29	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/14/16 04:29	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/14/16 04:29	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 04:29	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 04:29	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 04:29	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 04:29	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 04:29	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/14/16 04:29	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/14/16 04:29	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 04:29	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 04:29	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 04:29	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 04:29	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/14/16 04:29	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 04:29	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 04:29	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 04:29	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 04:29	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 04:29	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 04:29	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 04:29	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 04:29	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 04:29	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 04:29	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 04:29	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 04:29	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 04:29	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 04:29	79-00-5	
Trichloroethene	**3.1**	ug/L	1.0	0.17	1		11/14/16 04:29	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/14/16 04:29	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 04:29	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	102	%	77-130		1		11/14/16 04:29	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	81-127		1		11/14/16 04:29	17060-07-0	
Toluene-d8 (S)	100	%	80-120		1		11/14/16 04:29	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/14/16 04:29		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: IW-77-201611 **Lab ID: 60231848004** Collected: 11/08/16 09:29 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	**21.6**	ug/L	10.0	1.9	1		11/14/16 11:33	67-64-1	
Benzene	**0.11J**	ug/L	1.0	0.060	1		11/14/16 11:33	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 11:33	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/14/16 11:33	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/14/16 11:33	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 11:33	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 11:33	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 11:33	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 11:33	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 11:33	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/14/16 11:33	67-66-3	
Chloromethane	**1.6**	ug/L	1.0	0.080	1		11/14/16 11:33	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 11:33	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 11:33	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 11:33	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 11:33	75-35-4	
cis-1,2-Dichloroethene	**2.1**	ug/L	1.0	0.080	1		11/14/16 11:33	156-59-2	
trans-1,2-Dichloroethene	**0.43J**	ug/L	1.0	0.20	1		11/14/16 11:33	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 11:33	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 11:33	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 11:33	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 11:33	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 11:33	591-78-6	
Methylene chloride	**0.27J**	ug/L	1.0	0.15	1		11/14/16 11:33	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 11:33	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 11:33	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 11:33	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 11:33	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 11:33	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 11:33	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 11:33	79-00-5	
Trichloroethene	**137**	ug/L	1.0	0.17	1		11/14/16 11:33	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/14/16 11:33	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 11:33	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	98	%	77-130		1		11/14/16 11:33	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	81-127		1		11/14/16 11:33	17060-07-0	
Toluene-d8 (S)	100	%	80-120		1		11/14/16 11:33	2037-26-5	
Preservation pH	**7.0**		0.10	0.10	1		11/14/16 11:33		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: IW-78-201611 **Lab ID: 60231848005** Collected: 11/08/16 11:37 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	**82.4**	ug/L	10.0	1.9	1		11/14/16 11:19	67-64-1	
Benzene	**0.11J**	ug/L	1.0	0.060	1		11/14/16 11:19	71-43-2	
Bromodichloromethane	**0.34J**	ug/L	1.0	0.19	1		11/14/16 11:19	75-27-4	
Bromoform	**11.5**	ug/L	1.0	0.070	1		11/14/16 11:19	75-25-2	
Bromomethane	**2.4J**	ug/L	5.0	0.16	1		11/14/16 11:19	74-83-9	
2-Butanone (MEK)	**6.1J**	ug/L	10.0	0.59	1		11/14/16 11:19	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 11:19	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 11:19	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 11:19	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 11:19	75-00-3	
Chloroform	**0.16J**	ug/L	1.0	0.14	1		11/14/16 11:19	67-66-3	
Chloromethane	**7.5**	ug/L	1.0	0.080	1		11/14/16 11:19	74-87-3	
Dibromochloromethane	**0.76J**	ug/L	1.0	0.21	1		11/14/16 11:19	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 11:19	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 11:19	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 11:19	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/14/16 11:19	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 11:19	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 11:19	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 11:19	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 11:19	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 11:19	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 11:19	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 11:19	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 11:19	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 11:19	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 11:19	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 11:19	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 11:19	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 11:19	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 11:19	79-00-5	
Trichloroethene	**2.6**	ug/L	1.0	0.17	1		11/14/16 11:19	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/14/16 11:19	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 11:19	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	99	%	77-130		1		11/14/16 11:19	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	81-127		1		11/14/16 11:19	17060-07-0	
Toluene-d8 (S)	99	%	80-120		1		11/14/16 11:19	2037-26-5	
Preservation pH	**3.0**		0.10	0.10	1		11/14/16 11:19		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-22-201611 **Lab ID: 60231848006** Collected: 11/08/16 13:16 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/14/16 04:14	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/14/16 04:14	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 04:14	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/14/16 04:14	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/14/16 04:14	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 04:14	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 04:14	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 04:14	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 04:14	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 04:14	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/14/16 04:14	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/14/16 04:14	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 04:14	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 04:14	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 04:14	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 04:14	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/14/16 04:14	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 04:14	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 04:14	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 04:14	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 04:14	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 04:14	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 04:14	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 04:14	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 04:14	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 04:14	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 04:14	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 04:14	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 04:14	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 04:14	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 04:14	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/14/16 04:14	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/14/16 04:14	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 04:14	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	101	%	77-130		1		11/14/16 04:14	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	81-127		1		11/14/16 04:14	17060-07-0	
Toluene-d8 (S)	100	%	80-120		1		11/14/16 04:14	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/14/16 04:14		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-24-201611 **Lab ID: 60231848007** Collected: 11/08/16 16:35 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	**90.1**	ug/L	10.0	1.9	1		11/14/16 11:48	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/14/16 11:48	71-43-2	
Bromodichloromethane	**0.78J**	ug/L	1.0	0.19	1		11/14/16 11:48	75-27-4	
Bromoform	**59.2**	ug/L	1.0	0.070	1		11/14/16 11:48	75-25-2	
Bromomethane	**8.3**	ug/L	5.0	0.16	1		11/14/16 11:48	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 11:48	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 11:48	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 11:48	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 11:48	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 11:48	75-00-3	
Chloroform	**0.16J**	ug/L	1.0	0.14	1		11/14/16 11:48	67-66-3	
Chloromethane	**13.6**	ug/L	1.0	0.080	1		11/14/16 11:48	74-87-3	
Dibromochloromethane	**2.5**	ug/L	1.0	0.21	1		11/14/16 11:48	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 11:48	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 11:48	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 11:48	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/14/16 11:48	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 11:48	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 11:48	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 11:48	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 11:48	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 11:48	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 11:48	591-78-6	
Methylene chloride	**0.24J**	ug/L	1.0	0.15	1		11/14/16 11:48	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 11:48	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 11:48	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 11:48	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 11:48	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 11:48	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 11:48	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 11:48	79-00-5	
Trichloroethene	**4.2**	ug/L	1.0	0.17	1		11/14/16 11:48	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/14/16 11:48	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 11:48	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	77-130		1		11/14/16 11:48	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	81-127		1		11/14/16 11:48	17060-07-0	
Toluene-d8 (S)	100	%	80-120		1		11/14/16 11:48	2037-26-5	
Preservation pH	**3.0**		0.10	0.10	1		11/14/16 11:48		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-175-201611 **Lab ID: 60231848008** Collected: 11/08/16 12:40 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	**11.9**	ug/L	10.0	1.9	1		11/14/16 04:58	67-64-1	
Benzene	**0.17J**	ug/L	1.0	0.060	1		11/14/16 04:58	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 04:58	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/14/16 04:58	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/14/16 04:58	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 04:58	78-93-3	
Carbon disulfide	**0.37J**	ug/L	5.0	0.12	1		11/14/16 04:58	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 04:58	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 04:58	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 04:58	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/14/16 04:58	67-66-3	
Chloromethane	**0.50J**	ug/L	1.0	0.080	1		11/14/16 04:58	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 04:58	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 04:58	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 04:58	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 04:58	75-35-4	
cis-1,2-Dichloroethene	**0.49J**	ug/L	1.0	0.080	1		11/14/16 04:58	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 04:58	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 04:58	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 04:58	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 04:58	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 04:58	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 04:58	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 04:58	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 04:58	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 04:58	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 04:58	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 04:58	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 04:58	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 04:58	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 04:58	79-00-5	
Trichloroethene	**50.9**	ug/L	1.0	0.17	1		11/14/16 04:58	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/14/16 04:58	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 04:58	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	102	%	77-130		1		11/14/16 04:58	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	81-127		1		11/14/16 04:58	17060-07-0	
Toluene-d8 (S)	99	%	80-120		1		11/14/16 04:58	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/14/16 04:58		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: DUP-07-201611 **Lab ID: 60231848009** Collected: 11/08/16 10:35 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/14/16 05:13	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/14/16 05:13	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 05:13	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/14/16 05:13	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/14/16 05:13	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 05:13	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 05:13	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 05:13	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 05:13	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 05:13	75-00-3	
Chloroform	**0.16J**	ug/L	1.0	0.14	1		11/14/16 05:13	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/14/16 05:13	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 05:13	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 05:13	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 05:13	107-06-2	
1,1-Dichloroethene	**1.7**	ug/L	1.0	0.20	1		11/14/16 05:13	75-35-4	
cis-1,2-Dichloroethene	**24.3**	ug/L	1.0	0.080	1		11/14/16 05:13	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 05:13	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 05:13	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 05:13	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 05:13	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 05:13	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 05:13	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 05:13	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 05:13	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 05:13	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 05:13	79-34-5	
Tetrachloroethene	**0.18J**	ug/L	1.0	0.10	1		11/14/16 05:13	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 05:13	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 05:13	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 05:13	79-00-5	
Trichloroethene	**453**	ug/L	5.0	0.85	5		11/15/16 19:09	79-01-6	
Vinyl chloride	**0.45J**	ug/L	1.0	0.13	1		11/14/16 05:13	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 05:13	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	101	%	77-130		1		11/14/16 05:13	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	81-127		1		11/14/16 05:13	17060-07-0	
Toluene-d8 (S)	101	%	80-120		1		11/14/16 05:13	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/14/16 05:13		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-57R-201611 **Lab ID: 60231848010** Collected: 11/08/16 10:35 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/14/16 05:27	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/14/16 05:27	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 05:27	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/14/16 05:27	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/14/16 05:27	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 05:27	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 05:27	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 05:27	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 05:27	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 05:27	75-00-3	
Chloroform	**0.14J**	ug/L	1.0	0.14	1		11/14/16 05:27	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/14/16 05:27	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 05:27	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 05:27	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 05:27	107-06-2	
1,1-Dichloroethene	**1.9**	ug/L	1.0	0.20	1		11/14/16 05:27	75-35-4	
cis-1,2-Dichloroethene	**23.0**	ug/L	1.0	0.080	1		11/14/16 05:27	156-59-2	
trans-1,2-Dichloroethene	**0.23J**	ug/L	1.0	0.20	1		11/14/16 05:27	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 05:27	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 05:27	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 05:27	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 05:27	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 05:27	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 05:27	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 05:27	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 05:27	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 05:27	79-34-5	
Tetrachloroethene	**0.18J**	ug/L	1.0	0.10	1		11/14/16 05:27	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 05:27	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 05:27	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 05:27	79-00-5	
Trichloroethene	**441**	ug/L	5.0	0.85	5		11/16/16 00:57	79-01-6	
Vinyl chloride	**0.44J**	ug/L	1.0	0.13	1		11/14/16 05:27	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 05:27	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	101	%	77-130		1		11/14/16 05:27	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	81-127		1		11/14/16 05:27	17060-07-0	
Toluene-d8 (S)	98	%	80-120		1		11/14/16 05:27	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/14/16 05:27		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-56R-201611 **Lab ID: 60231848011** Collected: 11/08/16 09:05 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/14/16 05:42	67-64-1	
Benzene	**0.17J**	ug/L	1.0	0.060	1		11/14/16 05:42	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 05:42	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/14/16 05:42	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/14/16 05:42	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 05:42	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 05:42	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 05:42	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 05:42	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 05:42	75-00-3	
Chloroform	**0.31J**	ug/L	1.0	0.14	1		11/14/16 05:42	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/14/16 05:42	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 05:42	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 05:42	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 05:42	107-06-2	
1,1-Dichloroethene	**1.9**	ug/L	1.0	0.20	1		11/14/16 05:42	75-35-4	
cis-1,2-Dichloroethene	**27.8**	ug/L	1.0	0.080	1		11/14/16 05:42	156-59-2	
trans-1,2-Dichloroethene	**0.35J**	ug/L	1.0	0.20	1		11/14/16 05:42	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 05:42	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 05:42	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 05:42	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 05:42	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 05:42	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 05:42	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 05:42	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 05:42	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 05:42	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 05:42	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 05:42	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 05:42	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 05:42	79-00-5	
Trichloroethene	**679**	ug/L	10.0	1.7	10		11/16/16 01:11	79-01-6	
Vinyl chloride	**0.37J**	ug/L	1.0	0.13	1		11/14/16 05:42	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 05:42	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	77-130		1		11/14/16 05:42	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	81-127		1		11/14/16 05:42	17060-07-0	
Toluene-d8 (S)	100	%	80-120		1		11/14/16 05:42	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/14/16 05:42		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-176-201611 **Lab ID: 60231848012** Collected: 11/08/16 14:55 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/16/16 22:16	67-64-1	
Benzene	**0.11J**	ug/L	1.0	0.060	1		11/16/16 22:16	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 22:16	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 22:16	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 22:16	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 22:16	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 22:16	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 22:16	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 22:16	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 22:16	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/16/16 22:16	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 22:16	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 22:16	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 22:16	75-34-3	
1,2-Dichloroethane	**0.12J**	ug/L	1.0	0.12	1		11/16/16 22:16	107-06-2	
1,1-Dichloroethene	**3.1**	ug/L	1.0	0.20	1		11/16/16 22:16	75-35-4	
cis-1,2-Dichloroethene	**202**	ug/L	10.0	0.80	10		11/14/16 05:56	156-59-2	
trans-1,2-Dichloroethene	**1.8**	ug/L	1.0	0.20	1		11/16/16 22:16	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 22:16	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 22:16	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 22:16	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 22:16	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 22:16	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/16/16 22:16	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/16/16 22:16	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 22:16	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 22:16	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 22:16	127-18-4	
Toluene	**0.31J**	ug/L	1.0	0.17	1		11/16/16 22:16	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 22:16	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 22:16	79-00-5	L3
Trichloroethene	**320**	ug/L	10.0	1.7	10		11/14/16 05:56	79-01-6	
Vinyl chloride	**1.6**	ug/L	1.0	0.13	1		11/16/16 22:16	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 22:16	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	77-130		1		11/16/16 22:16	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	81-127		1		11/16/16 22:16	17060-07-0	
Toluene-d8 (S)	94	%	80-120		1		11/16/16 22:16	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 22:16		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-87-201611 **Lab ID: 60231848013** Collected: 11/08/16 17:00 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	**507**	ug/L	50.0	8.8	1	11/11/16 11:45	11/14/16 17:05	7439-89-6	
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/16/16 22:45	67-64-1	
Benzene	**0.12J**	ug/L	1.0	0.060	1		11/16/16 22:45	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 22:45	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 22:45	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 22:45	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 22:45	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 22:45	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 22:45	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 22:45	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 22:45	75-00-3	
Chloroform	**0.32J**	ug/L	1.0	0.14	1		11/16/16 22:45	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 22:45	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 22:45	124-48-1	
1,1-Dichloroethane	**2.3**	ug/L	1.0	0.050	1		11/16/16 22:45	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 22:45	107-06-2	
1,1-Dichloroethene	**6.2**	ug/L	1.0	0.20	1		11/16/16 22:45	75-35-4	
cis-1,2-Dichloroethene	**51.9**	ug/L	1.0	0.080	1		11/16/16 22:45	156-59-2	
trans-1,2-Dichloroethene	**0.96J**	ug/L	1.0	0.20	1		11/16/16 22:45	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 22:45	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 22:45	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 22:45	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 22:45	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 22:45	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/16/16 22:45	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/16/16 22:45	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 22:45	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 22:45	79-34-5	
Tetrachloroethene	**4.7**	ug/L	1.0	0.10	1		11/16/16 22:45	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/16/16 22:45	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 22:45	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 22:45	79-00-5	L3
Trichloroethene	**701**	ug/L	20.0	3.4	20		11/14/16 06:11	79-01-6	
Vinyl chloride	**0.25J**	ug/L	1.0	0.13	1		11/16/16 22:45	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 22:45	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	109	%	77-130		1		11/16/16 22:45	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	81-127		1		11/16/16 22:45	17060-07-0	
Toluene-d8 (S)	93	%	80-120		1		11/16/16 22:45	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 22:45		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4								
Iron, Ferric	**0.46**	mg/L	0.20		1		11/15/16 00:00	7439-89-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-87-201611 **Lab ID: 60231848013** Collected: 11/08/16 17:00 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D								
Sulfide, Total	ND	mg/L	0.050	0.019	1		11/14/16 12:08	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	**15.3**	mg/L	1.0	0.15	1		11/16/16 16:31	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	**3.0**	mg/L	0.10	0.012	1		11/09/16 15:17		
Nitrogen, Nitrite	ND	mg/L	0.10	0.010	1		11/09/16 15:17		
Nitrogen, NO2 plus NO3	**3.0**	mg/L	0.10	0.012	1		11/09/16 15:17		
5310C TOC	Analytical Method: SM 5310C								
Total Organic Carbon	**0.80J**	mg/L	1.0	0.054	1		11/12/16 15:07	7440-44-0	B

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-89-201611 **Lab ID: 60231848014** Collected: 11/08/16 15:15 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	**40.4J**	ug/L	50.0	8.8	1	11/11/16 11:45	11/14/16 17:07	7439-89-6	
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/15/16 22:17	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/15/16 22:17	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/15/16 22:17	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/15/16 22:17	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/15/16 22:17	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/15/16 22:17	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/15/16 22:17	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/15/16 22:17	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/15/16 22:17	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/15/16 22:17	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/15/16 22:17	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/15/16 22:17	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/15/16 22:17	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/15/16 22:17	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/15/16 22:17	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 22:17	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/15/16 22:17	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 22:17	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/15/16 22:17	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/15/16 22:17	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/15/16 22:17	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/15/16 22:17	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/15/16 22:17	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/15/16 22:17	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/15/16 22:17	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/15/16 22:17	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/15/16 22:17	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/15/16 22:17	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/15/16 22:17	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/15/16 22:17	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/15/16 22:17	79-00-5	
Trichloroethene	**13.4**	ug/L	1.0	0.17	1		11/15/16 22:17	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/15/16 22:17	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/15/16 22:17	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	77-130		1		11/15/16 22:17	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	81-127		1		11/15/16 22:17	17060-07-0	
Toluene-d8 (S)	96	%	80-120		1		11/15/16 22:17	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/15/16 22:17		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4								
Iron, Ferric	ND	mg/L	0.20		1		11/15/16 00:00	7439-89-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-89-201611 **Lab ID: 60231848014** Collected: 11/08/16 15:15 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D								
Sulfide, Total	ND	mg/L	0.050	0.019	1		11/14/16 12:09	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	**12.7**	mg/L	1.0	0.15	1		11/16/16 16:45	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	**108**	mg/L	5.0	0.60	50		11/09/16 15:30		
Nitrogen, Nitrite	ND	mg/L	5.0	0.52	50		11/09/16 15:30		
Nitrogen, NO2 plus NO3	**108**	mg/L	5.0	0.60	50		11/09/16 15:30		
5310C TOC	Analytical Method: SM 5310C								
Total Organic Carbon	**1.9**	mg/L	1.0	0.054	1		11/12/16 15:20	7440-44-0	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: TMW-11-201611 **Lab ID: 60231848015** Collected: 11/08/16 09:27 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	**7730**	ug/L	50.0	8.8	1	11/11/16 11:45	11/14/16 17:09	7439-89-6	
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	**5.0J**	ug/L	10.0	1.9	1		11/16/16 22:31	67-64-1	
Benzene	**0.10J**	ug/L	1.0	0.060	1		11/16/16 22:31	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 22:31	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 22:31	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 22:31	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 22:31	78-93-3	
Carbon disulfide	**0.26J**	ug/L	5.0	0.12	1		11/16/16 22:31	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 22:31	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 22:31	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 22:31	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/16/16 22:31	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 22:31	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 22:31	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 22:31	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 22:31	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 22:31	75-35-4	
cis-1,2-Dichloroethene	**4.7**	ug/L	1.0	0.080	1		11/16/16 22:31	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 22:31	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 22:31	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 22:31	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 22:31	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 22:31	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 22:31	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/16/16 22:31	75-09-2	
4-Methyl-2-pentanone (MIBK)	**1.1J**	ug/L	10.0	0.42	1		11/16/16 22:31	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 22:31	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 22:31	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 22:31	127-18-4	
Toluene	**0.87J**	ug/L	1.0	0.17	1		11/16/16 22:31	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 22:31	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 22:31	79-00-5	L3
Trichloroethene	**1.2**	ug/L	1.0	0.17	1		11/16/16 22:31	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/16/16 22:31	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 22:31	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	77-130		1		11/16/16 22:31	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	81-127		1		11/16/16 22:31	17060-07-0	
Toluene-d8 (S)	98	%	80-120		1		11/16/16 22:31	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 22:31		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4								
Iron, Ferric	**4.4**	mg/L	0.20		1		11/15/16 00:00	7439-89-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: TMW-11-201611 **Lab ID: 60231848015** Collected: 11/08/16 09:27 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D								
Sulfide, Total	ND	mg/L	0.050	0.019	1		11/14/16 12:09	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	**0.68J**	mg/L	1.0	0.15	1		11/16/16 17:00	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	ND	mg/L	0.10	0.012	1		11/09/16 15:21		
Nitrogen, Nitrite	**0.019J**	mg/L	0.10	0.010	1		11/09/16 15:21		
Nitrogen, NO2 plus NO3	ND	mg/L	0.10	0.012	1		11/09/16 15:21		
5310C TOC	Analytical Method: SM 5310C								
Total Organic Carbon	**29.4**	mg/L	3.0	0.16	3		11/15/16 13:45	7440-44-0	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: DUP-05-201611 **Lab ID: 60231848016** Collected: 11/08/16 17:00 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/16/16 00:13	67-64-1	
Benzene	**0.11J**	ug/L	1.0	0.060	1		11/16/16 00:13	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 00:13	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 00:13	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 00:13	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 00:13	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 00:13	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 00:13	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 00:13	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 00:13	75-00-3	
Chloroform	**0.36J**	ug/L	1.0	0.14	1		11/16/16 00:13	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 00:13	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 00:13	124-48-1	
1,1-Dichloroethane	**2.2**	ug/L	1.0	0.050	1		11/16/16 00:13	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 00:13	107-06-2	
1,1-Dichloroethene	**6.4**	ug/L	1.0	0.20	1		11/16/16 00:13	75-35-4	
cis-1,2-Dichloroethene	**49.0**	ug/L	1.0	0.080	1		11/16/16 00:13	156-59-2	
trans-1,2-Dichloroethene	**0.86J**	ug/L	1.0	0.20	1		11/16/16 00:13	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 00:13	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 00:13	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 00:13	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 00:13	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 00:13	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/16/16 00:13	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/16/16 00:13	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 00:13	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 00:13	79-34-5	
Tetrachloroethene	**5.1**	ug/L	1.0	0.10	1		11/16/16 00:13	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/16/16 00:13	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 00:13	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 00:13	79-00-5	
Trichloroethene	**948**	ug/L	10.0	1.7	10		11/16/16 23:29	79-01-6	
Vinyl chloride	**0.39J**	ug/L	1.0	0.13	1		11/16/16 00:13	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 00:13	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	104	%	77-130		1		11/16/16 00:13	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	81-127		1		11/16/16 00:13	17060-07-0	
Toluene-d8 (S)	97	%	80-120		1		11/16/16 00:13	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 00:13		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-190-201611 **Lab ID: 60231848017** Collected: 11/08/16 15:15 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	**2.6J**	ug/L	10.0	1.9	1		11/15/16 22:31	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/15/16 22:31	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/15/16 22:31	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/15/16 22:31	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/15/16 22:31	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/15/16 22:31	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/15/16 22:31	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/15/16 22:31	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/15/16 22:31	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/15/16 22:31	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/15/16 22:31	67-66-3	
Chloromethane	**0.52J**	ug/L	1.0	0.080	1		11/15/16 22:31	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/15/16 22:31	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/15/16 22:31	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/15/16 22:31	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 22:31	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/15/16 22:31	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 22:31	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/15/16 22:31	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/15/16 22:31	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/15/16 22:31	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/15/16 22:31	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/15/16 22:31	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/15/16 22:31	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/15/16 22:31	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/15/16 22:31	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/15/16 22:31	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/15/16 22:31	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/15/16 22:31	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/15/16 22:31	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/15/16 22:31	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/15/16 22:31	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/15/16 22:31	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/15/16 22:31	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	93	%	77-130		1		11/15/16 22:31	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	81-127		1		11/15/16 22:31	17060-07-0	
Toluene-d8 (S)	93	%	80-120		1		11/15/16 22:31	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/15/16 22:31		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-98-201611 **Lab ID: 60231848018** Collected: 11/08/16 13:15 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/15/16 22:46	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/15/16 22:46	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/15/16 22:46	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/15/16 22:46	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/15/16 22:46	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/15/16 22:46	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/15/16 22:46	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/15/16 22:46	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/15/16 22:46	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/15/16 22:46	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/15/16 22:46	67-66-3	
Chloromethane	**0.39J**	ug/L	1.0	0.080	1		11/15/16 22:46	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/15/16 22:46	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/15/16 22:46	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/15/16 22:46	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 22:46	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/15/16 22:46	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 22:46	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/15/16 22:46	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/15/16 22:46	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/15/16 22:46	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/15/16 22:46	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/15/16 22:46	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/15/16 22:46	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/15/16 22:46	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/15/16 22:46	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/15/16 22:46	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/15/16 22:46	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/15/16 22:46	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/15/16 22:46	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/15/16 22:46	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/15/16 22:46	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/15/16 22:46	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/15/16 22:46	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	77-130		1		11/15/16 22:46	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	81-127		1		11/15/16 22:46	17060-07-0	
Toluene-d8 (S)	94	%	80-120		1		11/15/16 22:46	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/15/16 22:46		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-191-201611 **Lab ID: 60231848019** Collected: 11/08/16 16:35 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/15/16 23:00	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/15/16 23:00	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/15/16 23:00	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/15/16 23:00	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/15/16 23:00	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/15/16 23:00	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/15/16 23:00	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/15/16 23:00	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/15/16 23:00	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/15/16 23:00	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/15/16 23:00	67-66-3	
Chloromethane	**0.32J**	ug/L	1.0	0.080	1		11/15/16 23:00	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/15/16 23:00	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/15/16 23:00	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/15/16 23:00	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 23:00	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/15/16 23:00	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 23:00	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/15/16 23:00	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/15/16 23:00	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/15/16 23:00	10061-02-6	R1
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/15/16 23:00	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/15/16 23:00	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/15/16 23:00	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/15/16 23:00	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/15/16 23:00	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/15/16 23:00	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/15/16 23:00	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/15/16 23:00	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/15/16 23:00	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/15/16 23:00	79-00-5	R1
Trichloroethene	ND	ug/L	1.0	0.17	1		11/15/16 23:00	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/15/16 23:00	75-01-4	R1
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/15/16 23:00	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	98	%	77-130		1		11/15/16 23:00	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	81-127		1		11/15/16 23:00	17060-07-0	
Toluene-d8 (S)	100	%	80-120		1		11/15/16 23:00	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/15/16 23:00		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-97-201611 **Lab ID: 60231848020** Collected: 11/08/16 11:25 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/15/16 23:15	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/15/16 23:15	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/15/16 23:15	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/15/16 23:15	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/15/16 23:15	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/15/16 23:15	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/15/16 23:15	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/15/16 23:15	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/15/16 23:15	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/15/16 23:15	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/15/16 23:15	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/15/16 23:15	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/15/16 23:15	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/15/16 23:15	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/15/16 23:15	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 23:15	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/15/16 23:15	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 23:15	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/15/16 23:15	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/15/16 23:15	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/15/16 23:15	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/15/16 23:15	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/15/16 23:15	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/15/16 23:15	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/15/16 23:15	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/15/16 23:15	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/15/16 23:15	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/15/16 23:15	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/15/16 23:15	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/15/16 23:15	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/15/16 23:15	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/15/16 23:15	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/15/16 23:15	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/15/16 23:15	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	77-130		1		11/15/16 23:15	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	81-127		1		11/15/16 23:15	17060-07-0	
Toluene-d8 (S)	96	%	80-120		1		11/15/16 23:15	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/15/16 23:15		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-96-201611 **Lab ID: 60231848021** Collected: 11/08/16 10:15 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/15/16 23:30	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/15/16 23:30	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/15/16 23:30	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/15/16 23:30	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/15/16 23:30	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/15/16 23:30	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/15/16 23:30	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/15/16 23:30	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/15/16 23:30	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/15/16 23:30	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/15/16 23:30	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/15/16 23:30	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/15/16 23:30	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/15/16 23:30	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/15/16 23:30	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 23:30	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/15/16 23:30	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 23:30	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/15/16 23:30	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/15/16 23:30	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/15/16 23:30	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/15/16 23:30	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/15/16 23:30	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/15/16 23:30	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/15/16 23:30	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/15/16 23:30	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/15/16 23:30	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/15/16 23:30	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/15/16 23:30	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/15/16 23:30	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/15/16 23:30	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/15/16 23:30	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/15/16 23:30	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/15/16 23:30	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	101	%	77-130		1		11/15/16 23:30	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	81-127		1		11/15/16 23:30	17060-07-0	
Toluene-d8 (S)	94	%	80-120		1		11/15/16 23:30	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/15/16 23:30		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-184-201611 **Lab ID: 60231848022** Collected: 11/08/16 08:25 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/15/16 23:44	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/15/16 23:44	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/15/16 23:44	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/15/16 23:44	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/15/16 23:44	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/15/16 23:44	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/15/16 23:44	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/15/16 23:44	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/15/16 23:44	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/15/16 23:44	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/15/16 23:44	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/15/16 23:44	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/15/16 23:44	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/15/16 23:44	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/15/16 23:44	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 23:44	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/15/16 23:44	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 23:44	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/15/16 23:44	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/15/16 23:44	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/15/16 23:44	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/15/16 23:44	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/15/16 23:44	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/15/16 23:44	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/15/16 23:44	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/15/16 23:44	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/15/16 23:44	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/15/16 23:44	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/15/16 23:44	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/15/16 23:44	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/15/16 23:44	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/15/16 23:44	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/15/16 23:44	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/15/16 23:44	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	77-130		1		11/15/16 23:44	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	81-127		1		11/15/16 23:44	17060-07-0	
Toluene-d8 (S)	106	%	80-120		1		11/15/16 23:44	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/15/16 23:44		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: EB-02-201611 **Lab ID: 60231848023** Collected: 11/08/16 17:00 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/15/16 23:59	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/15/16 23:59	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/15/16 23:59	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/15/16 23:59	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/15/16 23:59	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/15/16 23:59	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/15/16 23:59	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/15/16 23:59	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/15/16 23:59	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/15/16 23:59	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/15/16 23:59	67-66-3	
Chloromethane	**0.25J**	ug/L	1.0	0.080	1		11/15/16 23:59	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/15/16 23:59	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/15/16 23:59	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/15/16 23:59	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 23:59	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/15/16 23:59	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 23:59	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/15/16 23:59	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/15/16 23:59	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/15/16 23:59	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/15/16 23:59	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/15/16 23:59	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/15/16 23:59	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/15/16 23:59	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/15/16 23:59	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/15/16 23:59	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/15/16 23:59	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/15/16 23:59	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/15/16 23:59	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/15/16 23:59	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/15/16 23:59	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/15/16 23:59	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/15/16 23:59	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	98	%	77-130		1		11/15/16 23:59	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	81-127		1		11/15/16 23:59	17060-07-0	
Toluene-d8 (S)	87	%	80-120		1		11/15/16 23:59	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/15/16 23:59		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: TMW-10-201611 **Lab ID: 60231848024** Collected: 11/08/16 09:17 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	**133**	ug/L	50.0	8.8	1	11/11/16 11:45	11/14/16 17:12	7439-89-6	
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/16/16 23:00	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/16/16 23:00	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 23:00	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 23:00	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 23:00	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 23:00	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 23:00	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 23:00	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 23:00	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 23:00	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/16/16 23:00	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 23:00	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 23:00	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 23:00	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 23:00	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 23:00	75-35-4	
cis-1,2-Dichloroethene	**4.4**	ug/L	1.0	0.080	1		11/16/16 23:00	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 23:00	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 23:00	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 23:00	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 23:00	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 23:00	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 23:00	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/16/16 23:00	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/16/16 23:00	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 23:00	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 23:00	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 23:00	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/16/16 23:00	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 23:00	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 23:00	79-00-5	L3
Trichloroethene	**95.4**	ug/L	1.0	0.17	1		11/16/16 23:00	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/16/16 23:00	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 23:00	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	95	%	77-130		1		11/16/16 23:00	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	81-127		1		11/16/16 23:00	17060-07-0	
Toluene-d8 (S)	92	%	80-120		1		11/16/16 23:00	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 23:00		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4								
Iron, Ferric	ND	mg/L	0.20		1		11/15/16 00:00	7439-89-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: TMW-10-201611 **Lab ID: 60231848024** Collected: 11/08/16 09:17 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D								
Sulfide, Total	ND	mg/L	0.050	0.019	1		11/14/16 12:09	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	**2.4**	mg/L	1.0	0.15	1		11/16/16 17:42	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	**1.1**	mg/L	0.10	0.012	1		11/09/16 15:09		
Nitrogen, Nitrite	**0.97**	mg/L	0.10	0.010	1		11/09/16 15:09		
Nitrogen, NO2 plus NO3	**2.1**	mg/L	0.10	0.012	1		11/09/16 15:09		
5310C TOC	Analytical Method: SM 5310C								
Total Organic Carbon	**0.75J**	mg/L	1.0	0.054	1		11/15/16 12:30	7440-44-0	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: ITMW-9-201611 **Lab ID: 60231848025** Collected: 11/08/16 16:00 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	**22.7J**	ug/L	50.0	8.8	1	11/11/16 11:45	11/14/16 17:14	7439-89-6	
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/16/16 09:26	67-64-1	R1
Benzene	ND	ug/L	1.0	0.060	1		11/16/16 09:26	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 09:26	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 09:26	75-25-2	L3
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 09:26	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 09:26	78-93-3	R1
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 09:26	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 09:26	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 09:26	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 09:26	75-00-3	
Chloroform	**0.36J**	ug/L	1.0	0.14	1		11/16/16 09:26	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 09:26	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 09:26	124-48-1	M1
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 09:26	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 09:26	107-06-2	
1,1-Dichloroethene	**0.48J**	ug/L	1.0	0.20	1		11/16/16 09:26	75-35-4	
cis-1,2-Dichloroethene	**73.0**	ug/L	1.0	0.080	1		11/16/16 09:26	156-59-2	M1
trans-1,2-Dichloroethene	**0.88J**	ug/L	1.0	0.20	1		11/16/16 09:26	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 09:26	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 09:26	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 09:26	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 09:26	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 09:26	591-78-6	
Methylene chloride	**0.24J**	ug/L	1.0	0.15	1		11/16/16 09:26	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/16/16 09:26	108-10-1	R1
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 09:26	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 09:26	79-34-5	L3
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 09:26	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/16/16 09:26	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 09:26	71-55-6	R1
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 09:26	79-00-5	
Vinyl chloride	**0.17J**	ug/L	1.0	0.13	1		11/16/16 09:26	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 09:26	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	77-130		1		11/16/16 09:26	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	81-127		1		11/16/16 09:26	17060-07-0	
Toluene-d8 (S)	85	%	80-120		1		11/16/16 09:26	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 09:26		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4								
Iron, Ferric	ND	mg/L	0.20		1		11/15/16 00:00	7439-89-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: ITMW-9-201611 **Lab ID: 60231848025** Collected: 11/08/16 16:00 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D								
Sulfide, Total	ND	mg/L	0.050	0.019	1		11/14/16 12:10	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	**19.7**	mg/L	1.0	0.15	1		11/16/16 17:56	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	**12.4**	mg/L	0.50	0.060	5		11/09/16 15:26		M1
Nitrogen, Nitrite	ND	mg/L	0.50	0.052	5		11/09/16 15:26		
Nitrogen, NO2 plus NO3	**12.4**	mg/L	0.50	0.060	5		11/09/16 15:26		
5310C TOC	Analytical Method: SM 5310C								
Total Organic Carbon	**0.50J**	mg/L	1.0	0.054	1		11/15/16 12:42	7440-44-0	B

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: TB-1-201611 **Lab ID: 60231848026** Collected: 11/08/16 08:25 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/15/16 20:50	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/15/16 20:50	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/15/16 20:50	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/15/16 20:50	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/15/16 20:50	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/15/16 20:50	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/15/16 20:50	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/15/16 20:50	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/15/16 20:50	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/15/16 20:50	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/15/16 20:50	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/15/16 20:50	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/15/16 20:50	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/15/16 20:50	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/15/16 20:50	107-06-2	
1,1-Dichloroethene	**0.23J**	ug/L	1.0	0.20	1		11/15/16 20:50	75-35-4	B
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/15/16 20:50	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 20:50	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/15/16 20:50	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/15/16 20:50	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/15/16 20:50	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/15/16 20:50	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/15/16 20:50	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/15/16 20:50	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/15/16 20:50	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/15/16 20:50	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/15/16 20:50	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/15/16 20:50	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/15/16 20:50	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/15/16 20:50	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/15/16 20:50	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/15/16 20:50	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/15/16 20:50	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/15/16 20:50	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	77-130		1		11/15/16 20:50	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	81-127		1		11/15/16 20:50	17060-07-0	
Toluene-d8 (S)	87	%	80-120		1		11/15/16 20:50	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/15/16 20:50		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: TB-3-201611 **Lab ID: 60231848027** Collected: 11/08/16 08:25 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/15/16 21:05	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/15/16 21:05	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/15/16 21:05	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/15/16 21:05	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/15/16 21:05	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/15/16 21:05	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/15/16 21:05	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/15/16 21:05	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/15/16 21:05	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/15/16 21:05	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/15/16 21:05	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/15/16 21:05	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/15/16 21:05	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/15/16 21:05	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/15/16 21:05	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 21:05	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/15/16 21:05	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 21:05	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/15/16 21:05	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/15/16 21:05	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/15/16 21:05	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/15/16 21:05	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/15/16 21:05	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/15/16 21:05	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/15/16 21:05	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/15/16 21:05	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/15/16 21:05	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/15/16 21:05	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/15/16 21:05	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/15/16 21:05	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/15/16 21:05	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/15/16 21:05	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/15/16 21:05	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/15/16 21:05	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	77-130		1		11/15/16 21:05	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	81-127		1		11/15/16 21:05	17060-07-0	
Toluene-d8 (S)	99	%	80-120		1		11/15/16 21:05	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/15/16 21:05		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

QC Batch: 454539 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET
Associated Lab Samples: 60231848013, 60231848014, 60231848015, 60231848024, 60231848025

METHOD BLANK: 1861302 Matrix: Water
Associated Lab Samples: 60231848013, 60231848014, 60231848015, 60231848024, 60231848025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron	ug/L	ND	50.0	8.8	11/15/16 12:51	

LABORATORY CONTROL SAMPLE: 1861303

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron	ug/L	10000	10000	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1861304 1861305

Parameter	Units	60231955004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron	ug/L	5940	10000	10000	15500	15000	96	91	75-125	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1861306 1861307

Parameter	Units	60231848025 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron	ug/L	22.7J	10000	10000	9390	9720	94	97	75-125	3	20	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

QC Batch: 454535 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60231848001, 60231848002, 60231848003, 60231848006, 60231848008, 60231848009, 60231848010, 60231848011, 60231848012, 60231848013

METHOD BLANK: 1861274 Matrix: Water
Associated Lab Samples: 60231848001, 60231848002, 60231848003, 60231848006, 60231848008, 60231848009, 60231848010, 60231848011, 60231848012, 60231848013

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	0.11	11/14/16 01:50	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.15	11/14/16 01:50	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.20	11/14/16 01:50	
1,1-Dichloroethane	ug/L	ND	1.0	0.050	11/14/16 01:50	
1,1-Dichloroethene	ug/L	ND	1.0	0.20	11/14/16 01:50	
1,2-Dichloroethane	ug/L	ND	1.0	0.12	11/14/16 01:50	
1,2-Dichloropropane	ug/L	ND	1.0	0.16	11/14/16 01:50	
2-Butanone (MEK)	ug/L	ND	10.0	0.59	11/14/16 01:50	
2-Hexanone	ug/L	ND	10.0	1.2	11/14/16 01:50	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	0.42	11/14/16 01:50	
Acetone	ug/L	ND	10.0	1.9	11/14/16 01:50	
Benzene	ug/L	ND	1.0	0.060	11/14/16 01:50	
Bromodichloromethane	ug/L	ND	1.0	0.19	11/14/16 01:50	
Bromoform	ug/L	ND	1.0	0.070	11/14/16 01:50	
Bromomethane	ug/L	ND	5.0	0.16	11/14/16 01:50	
Carbon disulfide	ug/L	ND	5.0	0.12	11/14/16 01:50	
Carbon tetrachloride	ug/L	ND	1.0	0.18	11/14/16 01:50	
Chlorobenzene	ug/L	ND	1.0	0.21	11/14/16 01:50	
Chloroethane	ug/L	ND	1.0	0.15	11/14/16 01:50	
Chloroform	ug/L	ND	1.0	0.14	11/14/16 01:50	
Chloromethane	ug/L	ND	1.0	0.080	11/14/16 01:50	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.080	11/14/16 01:50	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.14	11/14/16 01:50	
Dibromochloromethane	ug/L	ND	1.0	0.21	11/14/16 01:50	
Ethylbenzene	ug/L	ND	1.0	0.18	11/14/16 01:50	
Methylene chloride	ug/L	ND	1.0	0.15	11/14/16 01:50	
Styrene	ug/L	ND	1.0	0.12	11/14/16 01:50	
Tetrachloroethene	ug/L	ND	1.0	0.10	11/14/16 01:50	
Toluene	ug/L	ND	1.0	0.17	11/14/16 01:50	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.20	11/14/16 01:50	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.12	11/14/16 01:50	
Trichloroethene	ug/L	ND	1.0	0.17	11/14/16 01:50	
Vinyl chloride	ug/L	ND	1.0	0.13	11/14/16 01:50	
Xylene (Total)	ug/L	ND	3.0	0.42	11/14/16 01:50	
1,2-Dichloroethane-d4 (S)	%	90	81-127		11/14/16 01:50	
4-Bromofluorobenzene (S)	%	98	77-130		11/14/16 01:50	
Toluene-d8 (S)	%	98	80-120		11/14/16 01:50	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

LABORATORY CONTROL SAMPLE: 1861275

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	20.7	104	81-116	
1,1,2,2-Tetrachloroethane	ug/L	20	20.5	103	72-117	
1,1,2-Trichloroethane	ug/L	20	21.1	105	79-108	
1,1-Dichloroethane	ug/L	20	20.5	102	83-117	
1,1-Dichloroethene	ug/L	20	20.3	101	74-114	
1,2-Dichloroethane	ug/L	20	19.3	97	72-116	
1,2-Dichloropropane	ug/L	20	20.1	100	80-120	
2-Butanone (MEK)	ug/L	100	86.3	86	67-129	
2-Hexanone	ug/L	100	96.7	97	70-128	
4-Methyl-2-pentanone (MIBK)	ug/L	100	91.6	92	80-120	
Acetone	ug/L	100	79.7	80	56-142	
Benzene	ug/L	20	21.1	106	79-116	
Bromodichloromethane	ug/L	20	21.4	107	80-120	
Bromoform	ug/L	20	19.8	99	73-114	
Bromomethane	ug/L	20	15.6	78	49-153	
Carbon disulfide	ug/L	20	19.5	97	82-121	
Carbon tetrachloride	ug/L	20	19.5	97	80-116	
Chlorobenzene	ug/L	20	20.1	100	80-120	
Chloroethane	ug/L	20	21.4	107	67-124	
Chloroform	ug/L	20	19.8	99	79-120	
Chloromethane	ug/L	20	15.9	80	10-192	
cis-1,2-Dichloroethene	ug/L	20	19.5	97	80-120	
cis-1,3-Dichloropropene	ug/L	20	18.9	94	80-120	
Dibromochloromethane	ug/L	20	22.1	110	80-120	
Ethylbenzene	ug/L	20	19.8	99	80-120	
Methylene chloride	ug/L	20	17.3	86	80-120	
Styrene	ug/L	20	21.0	105	80-120	
Tetrachloroethene	ug/L	20	21.7	109	80-120	
Toluene	ug/L	20	22.0	110	80-120	
trans-1,2-Dichloroethene	ug/L	20	20.0	100	78-108	
trans-1,3-Dichloropropene	ug/L	20	19.2	96	85-120	
Trichloroethene	ug/L	20	19.1	96	76-114	
Vinyl chloride	ug/L	20	19.4	97	69-129	
Xylene (Total)	ug/L	60	61.3	102	80-120	
1,2-Dichloroethane-d4 (S)	%			97	81-127	
4-Bromofluorobenzene (S)	%			97	77-130	
Toluene-d8 (S)	%			104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1861276 1861277

Parameter	Units	60231721006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	21.4	21.6	107	108	70-135	1	12	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	19.7	19.6	99	98	54-136	0	15	
1,1,2-Trichloroethane	ug/L	ND	20	20	19.4	18.7	97	94	70-113	4	15	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1861276 1861277

Parameter	Units	60231721006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethane	ug/L	ND	20	20	21.6	21.1	108	106	80-122	2	13	
1,1-Dichloroethene	ug/L	ND	20	20	20.8	22.3	104	111	73-118	7	14	
1,2-Dichloroethane	ug/L	ND	20	20	19.5	19.9	98	100	54-137	2	41	
1,2-Dichloropropane	ug/L	ND	20	20	20.6	20.5	103	103	77-116	0	12	
2-Butanone (MEK)	ug/L	ND	100	100	83.1	82.4	83	82	30-127	1	18	
2-Hexanone	ug/L	ND	100	100	85.0	87.3	85	87	44-124	3	18	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	100	86.7	90.5	87	90	70-124	4	15	
Acetone	ug/L	ND	100	100	79.1	85.5	78	84	10-132	8	20	
Benzene	ug/L	ND	20	20	21.2	21.8	106	109	37-151	3	40	
Bromodichloromethane	ug/L	ND	20	20	20.9	20.6	104	103	76-118	1	11	
Bromoform	ug/L	ND	20	20	19.8	19.0	99	95	64-113	4	15	
Bromomethane	ug/L	ND	20	20	15.3	17.7	77	89	41-154	14	43	
Carbon disulfide	ug/L	ND	20	20	20.5	21.3	103	106	80-139	4	17	
Carbon tetrachloride	ug/L	ND	20	20	21.5	21.8	107	109	75-127	1	13	
Chlorobenzene	ug/L	ND	20	20	21.0	20.6	105	103	79-113	2	13	
Chloroethane	ug/L	ND	20	20	21.8	22.1	109	110	53-154	1	20	
Chloroform	ug/L	0.27J	20	20	20.1	20.4	99	101	74-115	2	12	
Chloromethane	ug/L	ND	20	20	15.3	21.6	77	108	33-169	34	72	
cis-1,2-Dichloroethene	ug/L	ND	20	20	19.3	20.6	96	103	58-139	7	40	
cis-1,3-Dichloropropene	ug/L	ND	20	20	16.0	15.8	80	79	70-120	2	14	
Dibromochloromethane	ug/L	ND	20	20	20.3	19.8	102	99	77-114	2	13	
Ethylbenzene	ug/L	ND	20	20	21.4	22.6	107	113	29-151	5	45	
Methylene chloride	ug/L	ND	20	20	18.4	19.4	92	97	76-120	5	13	
Styrene	ug/L	ND	20	20	20.3	20.9	102	105	66-127	3	15	
Tetrachloroethene	ug/L	ND	20	20	21.8	20.9	109	104	77-118	4	14	
Toluene	ug/L	ND	20	20	21.3	21.5	106	108	37-147	1	43	
trans-1,2-Dichloroethene	ug/L	ND	20	20	20.9	21.4	104	107	69-125	2	16	
trans-1,3-Dichloropropene	ug/L	ND	20	20	16.1	15.6	81	78	71-118	4	13	
Trichloroethene	ug/L	ND	20	20	20.7	20.5	104	103	71-116	1	14	
Vinyl chloride	ug/L	ND	20	20	18.8	23.1	94	116	65-142	20	22	
Xylene (Total)	ug/L	ND	60	60	64.0	63.7	107	106	27-156	0	46	
1,2-Dichloroethane-d4 (S)	%						96	99	81-127			
4-Bromofluorobenzene (S)	%						99	99	77-130			
Toluene-d8 (S)	%						101	101	80-120			
Preservation pH		1.0			1.0	1.0				0		

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

QC Batch: 454817 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60231848002, 60231848009

METHOD BLANK: 1862602 Matrix: Water
Associated Lab Samples: 60231848002, 60231848009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Trichloroethene	ug/L	ND	1.0	0.17	11/15/16 14:19	
1,2-Dichloroethane-d4 (S)	%	100	81-127		11/15/16 14:19	
4-Bromofluorobenzene (S)	%	102	77-130		11/15/16 14:19	
Toluene-d8 (S)	%	95	80-120		11/15/16 14:19	

LABORATORY CONTROL SAMPLE: 1862603

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Trichloroethene	ug/L	20	20.7	103	76-114	
1,2-Dichloroethane-d4 (S)	%			95	81-127	
4-Bromofluorobenzene (S)	%			97	77-130	
Toluene-d8 (S)	%			94	80-120	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

QC Batch: 454950 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60231848010, 60231848011, 60231848014, 60231848016, 60231848017, 60231848018, 60231848019, 60231848020, 60231848021, 60231848022, 60231848023, 60231848026, 60231848027

METHOD BLANK: 1863034 Matrix: Water
Associated Lab Samples: 60231848010, 60231848011, 60231848014, 60231848016, 60231848017, 60231848018, 60231848019, 60231848020, 60231848021, 60231848022, 60231848023, 60231848026, 60231848027

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	0.11	11/15/16 20:36	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.15	11/15/16 20:36	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.20	11/15/16 20:36	
1,1-Dichloroethane	ug/L	ND	1.0	0.050	11/15/16 20:36	
1,1-Dichloroethene	ug/L	0.27J	1.0	0.20	11/15/16 20:36	
1,2-Dichloroethane	ug/L	ND	1.0	0.12	11/15/16 20:36	
1,2-Dichloropropane	ug/L	ND	1.0	0.16	11/15/16 20:36	
2-Butanone (MEK)	ug/L	ND	10.0	0.59	11/15/16 20:36	
2-Hexanone	ug/L	ND	10.0	1.2	11/15/16 20:36	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	0.42	11/15/16 20:36	
Acetone	ug/L	ND	10.0	1.9	11/15/16 20:36	
Benzene	ug/L	ND	1.0	0.060	11/15/16 20:36	
Bromodichloromethane	ug/L	ND	1.0	0.19	11/15/16 20:36	
Bromoform	ug/L	ND	1.0	0.070	11/15/16 20:36	
Bromomethane	ug/L	ND	5.0	0.16	11/15/16 20:36	
Carbon disulfide	ug/L	ND	5.0	0.12	11/15/16 20:36	
Carbon tetrachloride	ug/L	ND	1.0	0.18	11/15/16 20:36	
Chlorobenzene	ug/L	ND	1.0	0.21	11/15/16 20:36	
Chloroethane	ug/L	ND	1.0	0.15	11/15/16 20:36	
Chloroform	ug/L	ND	1.0	0.14	11/15/16 20:36	
Chloromethane	ug/L	ND	1.0	0.080	11/15/16 20:36	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.080	11/15/16 20:36	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.14	11/15/16 20:36	
Dibromochloromethane	ug/L	ND	1.0	0.21	11/15/16 20:36	
Ethylbenzene	ug/L	ND	1.0	0.18	11/15/16 20:36	
Methylene chloride	ug/L	ND	1.0	0.15	11/15/16 20:36	
Styrene	ug/L	ND	1.0	0.12	11/15/16 20:36	
Tetrachloroethene	ug/L	ND	1.0	0.10	11/15/16 20:36	
Toluene	ug/L	ND	1.0	0.17	11/15/16 20:36	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.20	11/15/16 20:36	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.12	11/15/16 20:36	
Trichloroethene	ug/L	ND	1.0	0.17	11/15/16 20:36	
Vinyl chloride	ug/L	ND	1.0	0.13	11/15/16 20:36	
Xylene (Total)	ug/L	ND	3.0	0.42	11/15/16 20:36	
1,2-Dichloroethane-d4 (S)	%	98	81-127		11/15/16 20:36	
4-Bromofluorobenzene (S)	%	101	77-130		11/15/16 20:36	
Toluene-d8 (S)	%	90	80-120		11/15/16 20:36	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

LABORATORY CONTROL SAMPLE: 1863035

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	21.8	109	81-116	
1,1,2,2-Tetrachloroethane	ug/L	20	20.1	101	72-117	
1,1,2-Trichloroethane	ug/L	20	20.6	103	79-108	
1,1-Dichloroethane	ug/L	20	21.5	108	83-117	
1,1-Dichloroethene	ug/L	20	21.2	106	74-114	
1,2-Dichloroethane	ug/L	20	20.4	102	72-116	
1,2-Dichloropropane	ug/L	20	20.6	103	80-120	
2-Butanone (MEK)	ug/L	100	99.9	100	67-129	
2-Hexanone	ug/L	100	105	105	70-128	
4-Methyl-2-pentanone (MIBK)	ug/L	100	94.3	94	80-120	
Acetone	ug/L	100	99.8	100	56-142	
Benzene	ug/L	20	21.5	107	79-116	
Bromodichloromethane	ug/L	20	21.2	106	80-120	
Bromoform	ug/L	20	20.7	103	73-114	
Bromomethane	ug/L	20	19.4	97	49-153	
Carbon disulfide	ug/L	20	20.1	101	82-121	
Carbon tetrachloride	ug/L	20	20.9	105	80-116	
Chlorobenzene	ug/L	20	20.5	103	80-120	
Chloroethane	ug/L	20	21.8	109	67-124	
Chloroform	ug/L	20	20.4	102	79-120	
Chloromethane	ug/L	20	21.7	108	10-192	
cis-1,2-Dichloroethene	ug/L	20	19.7	99	80-120	
cis-1,3-Dichloropropene	ug/L	20	19.2	96	80-120	
Dibromochloromethane	ug/L	20	22.2	111	80-120	
Ethylbenzene	ug/L	20	21.0	105	80-120	
Methylene chloride	ug/L	20	18.3	92	80-120	
Styrene	ug/L	20	21.1	106	80-120	
Tetrachloroethene	ug/L	20	24.0	120	80-120	
Toluene	ug/L	20	20.7	104	80-120	
trans-1,2-Dichloroethene	ug/L	20	20.9	104	78-108	
trans-1,3-Dichloropropene	ug/L	20	22.1	110	85-120	
Trichloroethene	ug/L	20	20.8	104	76-114	
Vinyl chloride	ug/L	20	20.1	101	69-129	
Xylene (Total)	ug/L	60	62.7	105	80-120	
1,2-Dichloroethane-d4 (S)	%			100	81-127	
4-Bromofluorobenzene (S)	%			97	77-130	
Toluene-d8 (S)	%			94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1863036 1863037

Parameter	Units	60231848019 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	22.3	20.9	111	104	70-135	7	12	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	19.4	18.7	97	93	54-136	4	15	
1,1,2-Trichloroethane	ug/L	ND	20	20	16.7	20.8	84	104	70-113	22	15	R1

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1863036 1863037

Parameter	Units	60231848019 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethane	ug/L	ND	20	20	20.7	20.0	103	100	80-122	3	13	
1,1-Dichloroethene	ug/L	ND	20	20	21.5	19.8	107	99	73-118	8	14	
1,2-Dichloroethane	ug/L	ND	20	20	19.2	19.2	96	96	54-137	0	41	
1,2-Dichloropropane	ug/L	ND	20	20	19.5	19.7	98	99	77-116	1	12	
2-Butanone (MEK)	ug/L	ND	100	100	82.3	81.9	82	82	30-127	0	18	
2-Hexanone	ug/L	ND	100	100	80.8	93.2	81	93	44-124	14	18	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	100	83.0	81.6	83	82	70-124	2	15	
Acetone	ug/L	ND	100	100	83.0	73.1	83	73	10-132	13	20	
Benzene	ug/L	ND	20	20	21.5	20.5	107	102	37-151	5	40	
Bromodichloromethane	ug/L	ND	20	20	19.6	20.1	98	101	76-118	3	11	
Bromoform	ug/L	ND	20	20	18.4	21.4	92	107	64-113	15	15	
Bromomethane	ug/L	ND	20	20	15.7	18.0	78	90	41-154	14	43	
Carbon disulfide	ug/L	ND	20	20	21.5	19.6	108	98	80-139	9	17	
Carbon tetrachloride	ug/L	ND	20	20	21.4	20.0	107	100	75-127	7	13	
Chlorobenzene	ug/L	ND	20	20	20.5	21.0	103	105	79-113	2	13	
Chloroethane	ug/L	ND	20	20	24.0	20.0	120	100	53-154	18	20	
Chloroform	ug/L	ND	20	20	19.7	18.9	99	94	74-115	4	12	
Chloromethane	ug/L	0.32J	20	20	30.4	19.2	150	94	33-169	45	72	
cis-1,2-Dichloroethene	ug/L	ND	20	20	19.3	18.0	96	90	58-139	7	40	
cis-1,3-Dichloropropene	ug/L	ND	20	20	17.9	16.9	89	84	70-120	6	14	
Dibromochloromethane	ug/L	ND	20	20	18.8	21.5	94	108	77-114	13	13	
Ethylbenzene	ug/L	ND	20	20	21.9	22.0	109	110	29-151	1	45	
Methylene chloride	ug/L	ND	20	20	19.2	17.3	96	86	76-120	11	13	
Styrene	ug/L	ND	20	20	19.8	20.7	99	104	66-127	5	15	
Tetrachloroethene	ug/L	ND	20	20	20.9	22.7	104	114	77-118	8	14	
Toluene	ug/L	ND	20	20	17.9	21.1	90	106	37-147	17	43	
trans-1,2-Dichloroethene	ug/L	ND	20	20	20.7	19.7	103	98	69-125	5	16	
trans-1,3-Dichloropropene	ug/L	ND	20	20	17.0	19.5	85	97	71-118	14	13	R1
Trichloroethene	ug/L	ND	20	20	20.4	20.7	102	103	71-116	1	14	
Vinyl chloride	ug/L	ND	20	20	22.9	18.2	114	91	65-142	23	22	R1
Xylene (Total)	ug/L	ND	60	60	63.9	64.3	106	107	27-156	1	46	
1,2-Dichloroethane-d4 (S)	%						96	94	81-127			
4-Bromofluorobenzene (S)	%						99	93	77-130			
Toluene-d8 (S)	%						84	96	80-120			
Preservation pH		1.0			1.0	1.0				0		

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

QC Batch: 454968
QC Batch Method: EPA 5030B/8260
Analysis Method: EPA 5030B/8260
Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60231848025

METHOD BLANK: 1863067
Matrix: Water
Associated Lab Samples: 60231848025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	0.11	11/16/16 08:42	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.15	11/16/16 08:42	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.20	11/16/16 08:42	
1,1-Dichloroethane	ug/L	ND	1.0	0.050	11/16/16 08:42	
1,1-Dichloroethene	ug/L	ND	1.0	0.20	11/16/16 08:42	
1,2-Dichloroethane	ug/L	ND	1.0	0.12	11/16/16 08:42	
1,2-Dichloropropane	ug/L	ND	1.0	0.16	11/16/16 08:42	
2-Butanone (MEK)	ug/L	ND	10.0	0.59	11/16/16 08:42	
2-Hexanone	ug/L	ND	10.0	1.2	11/16/16 08:42	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	0.42	11/16/16 08:42	
Acetone	ug/L	ND	10.0	1.9	11/16/16 08:42	
Benzene	ug/L	ND	1.0	0.060	11/16/16 08:42	
Bromodichloromethane	ug/L	ND	1.0	0.19	11/16/16 08:42	
Bromoform	ug/L	ND	1.0	0.070	11/16/16 08:42	
Bromomethane	ug/L	ND	5.0	0.16	11/16/16 08:42	
Carbon disulfide	ug/L	ND	5.0	0.12	11/16/16 08:42	
Carbon tetrachloride	ug/L	ND	1.0	0.18	11/16/16 08:42	
Chlorobenzene	ug/L	ND	1.0	0.21	11/16/16 08:42	
Chloroethane	ug/L	ND	1.0	0.15	11/16/16 08:42	
Chloroform	ug/L	ND	1.0	0.14	11/16/16 08:42	
Chloromethane	ug/L	ND	1.0	0.080	11/16/16 08:42	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.080	11/16/16 08:42	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.14	11/16/16 08:42	
Dibromochloromethane	ug/L	ND	1.0	0.21	11/16/16 08:42	
Ethylbenzene	ug/L	ND	1.0	0.18	11/16/16 08:42	
Methylene chloride	ug/L	ND	1.0	0.15	11/16/16 08:42	
Styrene	ug/L	ND	1.0	0.12	11/16/16 08:42	
Tetrachloroethene	ug/L	ND	1.0	0.10	11/16/16 08:42	
Toluene	ug/L	ND	1.0	0.17	11/16/16 08:42	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.20	11/16/16 08:42	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.12	11/16/16 08:42	
Vinyl chloride	ug/L	ND	1.0	0.13	11/16/16 08:42	
Xylene (Total)	ug/L	ND	3.0	0.42	11/16/16 08:42	
1,2-Dichloroethane-d4 (S)	%	99	81-127		11/16/16 08:42	
4-Bromofluorobenzene (S)	%	97	77-130		11/16/16 08:42	
Toluene-d8 (S)	%	91	80-120		11/16/16 08:42	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

LABORATORY CONTROL SAMPLE: 1863068

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	20.0	100	81-116	
1,1,2,2-Tetrachloroethane	ug/L	20	24.6	123	72-117	L0
1,1,2-Trichloroethane	ug/L	20	21.7	108	79-108	
1,1-Dichloroethane	ug/L	20	18.7	94	83-117	
1,1-Dichloroethene	ug/L	20	18.0	90	74-114	
1,2-Dichloroethane	ug/L	20	20.6	103	72-116	
1,2-Dichloropropane	ug/L	20	22.2	111	80-120	
2-Butanone (MEK)	ug/L	100	92.7	93	67-129	
2-Hexanone	ug/L	100	102	102	70-128	
4-Methyl-2-pentanone (MIBK)	ug/L	100	101	101	80-120	
Acetone	ug/L	100	87.1	87	56-142	
Benzene	ug/L	20	21.6	108	79-116	
Bromodichloromethane	ug/L	20	21.3	107	80-120	
Bromoform	ug/L	20	23.3	116	73-114	L0
Bromomethane	ug/L	20	18.7	94	49-153	
Carbon disulfide	ug/L	20	18.1	90	82-121	
Carbon tetrachloride	ug/L	20	19.2	96	80-116	
Chlorobenzene	ug/L	20	21.0	105	80-120	
Chloroethane	ug/L	20	18.5	92	67-124	
Chloroform	ug/L	20	19.2	96	79-120	
Chloromethane	ug/L	20	14.7	74	10-192	
cis-1,2-Dichloroethene	ug/L	20	18.5	93	80-120	
cis-1,3-Dichloropropene	ug/L	20	21.2	106	80-120	
Dibromochloromethane	ug/L	20	22.8	114	80-120	
Ethylbenzene	ug/L	20	21.3	107	80-120	
Methylene chloride	ug/L	20	16.4	82	80-120	
Styrene	ug/L	20	21.6	108	80-120	
Tetrachloroethene	ug/L	20	21.4	107	80-120	
Toluene	ug/L	20	21.0	105	80-120	
trans-1,2-Dichloroethene	ug/L	20	18.5	93	78-108	
trans-1,3-Dichloropropene	ug/L	20	21.7	109	85-120	
Vinyl chloride	ug/L	20	16.6	83	69-129	
Xylene (Total)	ug/L	60	63.0	105	80-120	
1,2-Dichloroethane-d4 (S)	%			97	81-127	
4-Bromofluorobenzene (S)	%			108	77-130	
Toluene-d8 (S)	%			96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1863069 1863070

Parameter	Units	60231848025 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	21.4	24.7	107	123	70-135	14	12	R1
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	19.4	21.0	97	105	54-136	8	15	
1,1,2-Trichloroethane	ug/L	ND	20	20	20.3	20.2	101	101	70-113	0	15	
1,1-Dichloroethane	ug/L	ND	20	20	19.6	21.8	98	109	80-122	11	13	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1863069 1863070

Parameter	Units	60231848025 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethene	ug/L	0.48J	20	20	20.6	22.3	101	109	73-118	8	14	
1,2-Dichloroethane	ug/L	ND	20	20	20.0	21.4	100	107	54-137	7	41	
1,2-Dichloropropane	ug/L	ND	20	20	20.8	21.2	104	106	77-116	2	12	
2-Butanone (MEK)	ug/L	ND	100	100	77.2	96.9	77	97	30-127	23	18	R1
2-Hexanone	ug/L	ND	100	100	91.5	99.2	91	99	44-124	8	18	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	100	81.2	95.9	81	96	70-124	17	15	R1
Acetone	ug/L	ND	100	100	72.2	94.1	70	92	10-132	26	20	R1
Benzene	ug/L	ND	20	20	22.4	22.2	112	111	37-151	1	40	
Bromodichloromethane	ug/L	ND	20	20	20.7	21.9	103	110	76-118	6	11	
Bromoform	ug/L	ND	20	20	20.0	20.4	100	102	64-113	2	15	
Bromomethane	ug/L	ND	20	20	15.0	19.3	75	97	41-154	25	43	
Carbon disulfide	ug/L	ND	20	20	19.3	21.5	96	108	80-139	11	17	
Carbon tetrachloride	ug/L	ND	20	20	20.5	22.5	103	112	75-127	9	13	
Chlorobenzene	ug/L	ND	20	20	21.0	20.7	105	103	79-113	2	13	
Chloroethane	ug/L	ND	20	20	20.1	21.7	101	109	53-154	8	20	
Chloroform	ug/L	0.36J	20	20	19.8	22.1	97	109	74-115	11	12	
Chloromethane	ug/L	ND	20	20	14.6	19.3	73	97	33-169	28	72	
cis-1,2-Dichloroethene	ug/L	73.0	20	20	86.0	101	65	140	58-139	16	40	M1
cis-1,3-Dichloropropene	ug/L	ND	20	20	17.1	18.8	85	94	70-120	10	14	
Dibromochloromethane	ug/L	ND	20	20	20.7	22.9	103	115	77-114	10	13	M1
Ethylbenzene	ug/L	ND	20	20	22.0	21.0	110	105	29-151	4	45	
Methylene chloride	ug/L	0.24J	20	20	16.7	19.0	82	94	76-120	13	13	
Styrene	ug/L	ND	20	20	19.8	19.5	99	97	66-127	2	15	
Tetrachloroethene	ug/L	ND	20	20	21.6	22.7	108	113	77-118	5	14	
Toluene	ug/L	ND	20	20	20.2	20.3	101	102	37-147	0	43	
trans-1,2-Dichloroethene	ug/L	0.88J	20	20	20.2	22.3	96	107	69-125	10	16	
trans-1,3-Dichloropropene	ug/L	ND	20	20	18.2	18.5	91	93	71-118	2	13	
Vinyl chloride	ug/L	0.17J	20	20	17.9	20.9	89	103	65-142	15	22	
Xylene (Total)	ug/L	ND	60	60	65.4	62.7	109	104	27-156	4	46	
1,2-Dichloroethane-d4 (S)	%						96	104	81-127			
4-Bromofluorobenzene (S)	%						97	101	77-130			
Toluene-d8 (S)	%						95	92	80-120			
Preservation pH		1.0			1.0	1.0				0		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1863071 1863072

Parameter	Units	60231925008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	20.7	21.9	104	109	70-135	5	12	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	18.9	22.5	95	113	54-136	17	15	R1
1,1,2-Trichloroethane	ug/L	ND	20	20	20.7	20.5	103	102	70-113	1	15	
1,1-Dichloroethane	ug/L	ND	20	20	19.4	20.3	97	101	80-122	5	13	
1,1-Dichloroethene	ug/L	ND	20	20	19.3	21.4	97	107	73-118	10	14	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1863071 1863072

Parameter	Units	60231925008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dichloroethane	ug/L	ND	20	20	19.2	20.3	96	102	54-137	6	41	
1,2-Dichloropropane	ug/L	ND	20	20	19.3	20.6	96	103	77-116	7	12	
2-Butanone (MEK)	ug/L	ND	100	100	77.0	88.9	77	89	30-127	14	18	
2-Hexanone	ug/L	ND	100	100	89.5	93.9	90	94	44-124	5	18	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	100	78.4	90.2	78	90	70-124	14	15	
Acetone	ug/L	2.1J	100	100	78.9	84.2	77	82	10-132	6	20	
Benzene	ug/L	ND	20	20	22.0	21.8	110	109	37-151	1	40	
Bromodichloromethane	ug/L	ND	20	20	18.4	20.5	92	102	76-118	11	11	
Bromoform	ug/L	ND	20	20	20.9	21.8	104	109	64-113	4	15	
Bromomethane	ug/L	ND	20	20	17.5	19.4	87	97	41-154	10	43	
Carbon disulfide	ug/L	ND	20	20	19.6	20.2	98	101	80-139	3	17	
Carbon tetrachloride	ug/L	ND	20	20	20.5	22.1	102	110	75-127	8	13	
Chlorobenzene	ug/L	ND	20	20	21.1	21.2	106	106	79-113	0	13	
Chloroethane	ug/L	ND	20	20	21.0	20.6	105	103	53-154	2	20	
Chloroform	ug/L	ND	20	20	19.1	19.7	95	99	74-115	3	12	
Chloromethane	ug/L	ND	20	20	21.5	16.3	108	81	33-169	28	72	
cis-1,2-Dichloroethene	ug/L	ND	20	20	18.5	20.1	93	100	58-139	8	40	
cis-1,3-Dichloropropene	ug/L	ND	20	20	16.3	18.6	82	93	70-120	13	14	
Dibromochloromethane	ug/L	ND	20	20	21.3	21.3	106	107	77-114	0	13	
Ethylbenzene	ug/L	ND	20	20	22.5	21.8	113	109	29-151	3	45	
Methylene chloride	ug/L	ND	20	20	18.0	18.4	90	92	76-120	2	13	
Styrene	ug/L	ND	20	20	21.7	21.6	109	108	66-127	0	15	
Tetrachloroethene	ug/L	ND	20	20	23.0	21.4	115	107	77-118	7	14	
Toluene	ug/L	ND	20	20	20.4	20.2	102	101	37-147	1	43	
trans-1,2-Dichloroethene	ug/L	ND	20	20	18.9	20.3	94	101	69-125	7	16	
trans-1,3-Dichloropropene	ug/L	ND	20	20	18.2	18.7	91	93	71-118	2	13	
Vinyl chloride	ug/L	ND	20	20	19.8	19.8	99	99	65-142	0	22	
Xylene (Total)	ug/L	ND	60	60	66.1	69.5	110	116	27-156	5	46	
1,2-Dichloroethane-d4 (S)	%						94	98	81-127			
4-Bromofluorobenzene (S)	%						99	109	77-130			
Toluene-d8 (S)	%						95	94	80-120			
Preservation pH		1.0			1.0	1.0				0		

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

QC Batch: 455179 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60231848012, 60231848013, 60231848015, 60231848016, 60231848024

METHOD BLANK: 1863804 Matrix: Water
Associated Lab Samples: 60231848012, 60231848013, 60231848015, 60231848016, 60231848024

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	0.11	11/16/16 20:49	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.15	11/16/16 20:49	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.20	11/16/16 20:49	
1,1-Dichloroethane	ug/L	ND	1.0	0.050	11/16/16 20:49	
1,1-Dichloroethene	ug/L	ND	1.0	0.20	11/16/16 20:49	
1,2-Dichloroethane	ug/L	ND	1.0	0.12	11/16/16 20:49	
1,2-Dichloropropane	ug/L	ND	1.0	0.16	11/16/16 20:49	
2-Butanone (MEK)	ug/L	ND	10.0	0.59	11/16/16 20:49	
2-Hexanone	ug/L	ND	10.0	1.2	11/16/16 20:49	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	0.42	11/16/16 20:49	
Acetone	ug/L	ND	10.0	1.9	11/16/16 20:49	
Benzene	ug/L	ND	1.0	0.060	11/16/16 20:49	
Bromodichloromethane	ug/L	ND	1.0	0.19	11/16/16 20:49	
Bromoform	ug/L	ND	1.0	0.070	11/16/16 20:49	
Bromomethane	ug/L	ND	5.0	0.16	11/16/16 20:49	
Carbon disulfide	ug/L	ND	5.0	0.12	11/16/16 20:49	
Carbon tetrachloride	ug/L	ND	1.0	0.18	11/16/16 20:49	
Chlorobenzene	ug/L	ND	1.0	0.21	11/16/16 20:49	
Chloroethane	ug/L	ND	1.0	0.15	11/16/16 20:49	
Chloroform	ug/L	ND	1.0	0.14	11/16/16 20:49	
Chloromethane	ug/L	ND	1.0	0.080	11/16/16 20:49	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.080	11/16/16 20:49	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.14	11/16/16 20:49	
Dibromochloromethane	ug/L	ND	1.0	0.21	11/16/16 20:49	
Ethylbenzene	ug/L	ND	1.0	0.18	11/16/16 20:49	
Methylene chloride	ug/L	ND	1.0	0.15	11/16/16 20:49	
Styrene	ug/L	ND	1.0	0.12	11/16/16 20:49	
Tetrachloroethene	ug/L	ND	1.0	0.10	11/16/16 20:49	
Toluene	ug/L	ND	1.0	0.17	11/16/16 20:49	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.20	11/16/16 20:49	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.12	11/16/16 20:49	
Trichloroethene	ug/L	ND	1.0	0.17	11/16/16 20:49	
Vinyl chloride	ug/L	ND	1.0	0.13	11/16/16 20:49	
Xylene (Total)	ug/L	ND	3.0	0.42	11/16/16 20:49	
1,2-Dichloroethane-d4 (S)	%	88	81-127		11/16/16 20:49	
4-Bromofluorobenzene (S)	%	89	77-130		11/16/16 20:49	
Toluene-d8 (S)	%	99	80-120		11/16/16 20:49	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

LABORATORY CONTROL SAMPLE: 1863805

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	19.9	100	81-116	
1,1,2,2-Tetrachloroethane	ug/L	20	20.2	101	72-117	
1,1,2-Trichloroethane	ug/L	20	22.6	113	79-108	L0
1,1-Dichloroethane	ug/L	20	19.0	95	83-117	
1,1-Dichloroethene	ug/L	20	18.3	91	74-114	
1,2-Dichloroethane	ug/L	20	21.4	107	72-116	
1,2-Dichloropropane	ug/L	20	22.0	110	80-120	
2-Butanone (MEK)	ug/L	100	92.7	93	67-129	
2-Hexanone	ug/L	100	105	105	70-128	
4-Methyl-2-pentanone (MIBK)	ug/L	100	102	102	80-120	
Acetone	ug/L	100	86.8	87	56-142	
Benzene	ug/L	20	22.8	114	79-116	
Bromodichloromethane	ug/L	20	22.5	112	80-120	
Bromoform	ug/L	20	19.6	98	73-114	
Bromomethane	ug/L	20	17.3	86	49-153	
Carbon disulfide	ug/L	20	18.1	90	82-121	
Carbon tetrachloride	ug/L	20	19.4	97	80-116	
Chlorobenzene	ug/L	20	20.4	102	80-120	
Chloroethane	ug/L	20	17.9	89	67-124	
Chloroform	ug/L	20	19.9	100	79-120	
Chloromethane	ug/L	20	14.9	75	10-192	
cis-1,2-Dichloroethene	ug/L	20	19.3	96	80-120	
cis-1,3-Dichloropropene	ug/L	20	20.4	102	80-120	
Dibromochloromethane	ug/L	20	22.6	113	80-120	
Ethylbenzene	ug/L	20	20.3	102	80-120	
Methylene chloride	ug/L	20	16.7	83	80-120	
Styrene	ug/L	20	20.0	100	80-120	
Tetrachloroethene	ug/L	20	23.4	117	80-120	
Toluene	ug/L	20	22.1	111	80-120	
trans-1,2-Dichloroethene	ug/L	20	18.4	92	78-108	
trans-1,3-Dichloropropene	ug/L	20	21.8	109	85-120	
Trichloroethene	ug/L	20	21.8	109	76-114	
Vinyl chloride	ug/L	20	19.7	99	69-129	
Xylene (Total)	ug/L	60	59.2	99	80-120	
1,2-Dichloroethane-d4 (S)	%			92	81-127	
4-Bromofluorobenzene (S)	%			98	77-130	
Toluene-d8 (S)	%			98	80-120	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

QC Batch: 454708 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 7 day
Associated Lab Samples: 60231848004, 60231848005, 60231848007

METHOD BLANK: 1862328 Matrix: Water
Associated Lab Samples: 60231848004, 60231848005, 60231848007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	0.11	11/14/16 08:27	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.15	11/14/16 08:27	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.20	11/14/16 08:27	
1,1-Dichloroethane	ug/L	ND	1.0	0.050	11/14/16 08:27	
1,1-Dichloroethene	ug/L	ND	1.0	0.20	11/14/16 08:27	
1,2-Dichloroethane	ug/L	ND	1.0	0.12	11/14/16 08:27	
1,2-Dichloropropane	ug/L	ND	1.0	0.16	11/14/16 08:27	
2-Butanone (MEK)	ug/L	ND	10.0	0.59	11/14/16 08:27	
2-Hexanone	ug/L	ND	10.0	1.2	11/14/16 08:27	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	0.42	11/14/16 08:27	
Acetone	ug/L	ND	10.0	1.9	11/14/16 08:27	
Benzene	ug/L	ND	1.0	0.060	11/14/16 08:27	
Bromodichloromethane	ug/L	ND	1.0	0.19	11/14/16 08:27	
Bromoform	ug/L	ND	1.0	0.070	11/14/16 08:27	
Bromomethane	ug/L	ND	5.0	0.16	11/14/16 08:27	
Carbon disulfide	ug/L	ND	5.0	0.12	11/14/16 08:27	
Carbon tetrachloride	ug/L	ND	1.0	0.18	11/14/16 08:27	
Chlorobenzene	ug/L	ND	1.0	0.21	11/14/16 08:27	
Chloroethane	ug/L	ND	1.0	0.15	11/14/16 08:27	
Chloroform	ug/L	ND	1.0	0.14	11/14/16 08:27	
Chloromethane	ug/L	ND	1.0	0.080	11/14/16 08:27	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.080	11/14/16 08:27	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.14	11/14/16 08:27	
Dibromochloromethane	ug/L	ND	1.0	0.21	11/14/16 08:27	
Ethylbenzene	ug/L	ND	1.0	0.18	11/14/16 08:27	
Methylene chloride	ug/L	ND	1.0	0.15	11/14/16 08:27	
Styrene	ug/L	ND	1.0	0.12	11/14/16 08:27	
Tetrachloroethene	ug/L	ND	1.0	0.10	11/14/16 08:27	
Toluene	ug/L	ND	1.0	0.17	11/14/16 08:27	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.20	11/14/16 08:27	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.12	11/14/16 08:27	
Trichloroethene	ug/L	ND	1.0	0.17	11/14/16 08:27	
Vinyl chloride	ug/L	ND	1.0	0.13	11/14/16 08:27	
Xylene (Total)	ug/L	ND	3.0	0.42	11/14/16 08:27	
1,2-Dichloroethane-d4 (S)	%	99	81-127		11/14/16 08:27	
4-Bromofluorobenzene (S)	%	104	77-130		11/14/16 08:27	
Toluene-d8 (S)	%	99	80-120		11/14/16 08:27	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

LABORATORY CONTROL SAMPLE: 1862329

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	22.0	110	81-116	
1,1,2,2-Tetrachloroethane	ug/L	20	21.5	108	72-117	
1,1,2-Trichloroethane	ug/L	20	20.6	103	79-108	
1,1-Dichloroethane	ug/L	20	20.6	103	83-117	
1,1-Dichloroethene	ug/L	20	21.2	106	74-114	
1,2-Dichloroethane	ug/L	20	20.9	104	72-116	
1,2-Dichloropropane	ug/L	20	21.8	109	80-120	
2-Butanone (MEK)	ug/L	100	96.7	97	67-129	
2-Hexanone	ug/L	100	104	104	70-128	
4-Methyl-2-pentanone (MIBK)	ug/L	100	101	101	80-120	
Acetone	ug/L	100	95.5	96	56-142	
Benzene	ug/L	20	21.7	108	79-116	
Bromodichloromethane	ug/L	20	21.8	109	80-120	
Bromoform	ug/L	20	20.9	105	73-114	
Bromomethane	ug/L	20	17.0	85	49-153	
Carbon disulfide	ug/L	20	20.6	103	82-121	
Carbon tetrachloride	ug/L	20	21.0	105	80-116	
Chlorobenzene	ug/L	20	20.8	104	80-120	
Chloroethane	ug/L	20	19.6	98	67-124	
Chloroform	ug/L	20	20.2	101	79-120	
Chloromethane	ug/L	20	14.8	74	10-192	
cis-1,2-Dichloroethene	ug/L	20	20.3	102	80-120	
cis-1,3-Dichloropropene	ug/L	20	20.9	105	80-120	
Dibromochloromethane	ug/L	20	22.2	111	80-120	
Ethylbenzene	ug/L	20	22.0	110	80-120	
Methylene chloride	ug/L	20	17.9	90	80-120	
Styrene	ug/L	20	21.3	107	80-120	
Tetrachloroethene	ug/L	20	21.7	108	80-120	
Toluene	ug/L	20	21.1	105	80-120	
trans-1,2-Dichloroethene	ug/L	20	20.7	104	78-108	
trans-1,3-Dichloropropene	ug/L	20	19.8	99	85-120	
Trichloroethene	ug/L	20	20.2	101	76-114	
Vinyl chloride	ug/L	20	20.9	104	69-129	
Xylene (Total)	ug/L	60	64.4	107	80-120	
1,2-Dichloroethane-d4 (S)	%			97	81-127	
4-Bromofluorobenzene (S)	%			101	77-130	
Toluene-d8 (S)	%			98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1862330 1862331

Parameter	Units	60232152007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	22.3	21.5	111	107	70-135	4	12	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	19.6	21.0	98	105	54-136	7	15	
1,1,2-Trichloroethane	ug/L	ND	20	20	19.0	19.5	95	98	70-113	3	15	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1862330 1862331

Parameter	Units	60232152007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethane	ug/L	ND	20	20	21.9	21.6	109	108	80-122	1	13	
1,1-Dichloroethene	ug/L	ND	20	20	21.6	21.6	108	108	73-118	0	14	
1,2-Dichloroethane	ug/L	4.8	20	20	23.9	24.8	96	100	54-137	4	41	
1,2-Dichloropropane	ug/L	ND	20	20	20.4	21.0	102	105	77-116	3	12	
2-Butanone (MEK)	ug/L	ND	100	100	86.1	89.4	86	89	30-127	4	18	
2-Hexanone	ug/L	ND	100	100	88.7	95.6	89	96	44-124	7	18	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	100	96.2	97.1	96	97	70-124	1	15	
Acetone	ug/L	ND	100	100	83.4	85.8	81	83	10-132	3	20	
Benzene	ug/L	ND	20	20	21.4	21.3	107	107	37-151	0	40	
Bromodichloromethane	ug/L	ND	20	20	21.0	20.8	105	104	76-118	1	11	
Bromoform	ug/L	ND	20	20	19.4	19.9	97	100	64-113	3	15	
Bromomethane	ug/L	ND	20	20	20.6	22.8	103	114	41-154	10	43	
Carbon disulfide	ug/L	ND	20	20	21.7	21.1	109	105	80-139	3	17	
Carbon tetrachloride	ug/L	ND	20	20	21.6	21.2	108	106	75-127	2	13	
Chlorobenzene	ug/L	ND	20	20	21.0	20.6	105	103	79-113	2	13	
Chloroethane	ug/L	ND	20	20	22.8	21.6	114	108	53-154	6	20	
Chloroform	ug/L	ND	20	20	20.0	20.6	100	103	74-115	3	12	
Chloromethane	ug/L	ND	20	20	28.6	19.4	143	97	33-169	39	72	
cis-1,2-Dichloroethene	ug/L	ND	20	20	21.1	21.7	101	104	58-139	3	40	
cis-1,3-Dichloropropene	ug/L	ND	20	20	20.2	20.4	101	102	70-120	1	14	
Dibromochloromethane	ug/L	ND	20	20	20.3	20.7	102	104	77-114	2	13	
Ethylbenzene	ug/L	ND	20	20	21.9	21.4	109	107	29-151	2	45	
Methylene chloride	ug/L	ND	20	20	18.8	18.5	94	92	76-120	2	13	
Styrene	ug/L	ND	20	20	21.9	21.1	110	105	66-127	4	15	
Tetrachloroethene	ug/L	ND	20	20	22.0	22.3	110	112	77-118	1	14	
Toluene	ug/L	ND	20	20	21.2	20.6	106	103	37-147	3	43	
trans-1,2-Dichloroethene	ug/L	ND	20	20	21.5	21.2	108	106	69-125	1	16	
trans-1,3-Dichloropropene	ug/L	ND	20	20	19.5	19.8	97	99	71-118	2	13	
Trichloroethene	ug/L	3.1	20	20	24.9	24.3	109	106	71-116	3	14	
Vinyl chloride	ug/L	ND	20	20	24.2	21.2	121	106	65-142	13	22	
Xylene (Total)	ug/L	ND	60	60	66.3	62.7	110	105	27-156	5	46	
1,2-Dichloroethane-d4 (S)	%						93	97	81-127			
4-Bromofluorobenzene (S)	%						98	99	77-130			
Toluene-d8 (S)	%						97	96	80-120			
Preservation pH		7.0			7.0	7.0				0		

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

QC Batch: 454733 Analysis Method: SM 4500-S-2 D
QC Batch Method: SM 4500-S-2 D Analysis Description: 4500S2D Sulfide, Total
Associated Lab Samples: 60231848013, 60231848014, 60231848015, 60231848024, 60231848025

METHOD BLANK: 1862393 Matrix: Water
Associated Lab Samples: 60231848013, 60231848014, 60231848015, 60231848024, 60231848025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide, Total	mg/L	ND	0.050	0.019	11/14/16 12:08	

LABORATORY CONTROL SAMPLE: 1862394

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	.5	0.52	104	80-120	

MATRIX SPIKE SAMPLE: 1862395

Parameter	Units	60231848013 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	ND	.5	0.42	83	75-125	

SAMPLE DUPLICATE: 1862396

Parameter	Units	60231848025 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Total	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 1862397

Parameter	Units	60232095001 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Total	mg/L	ND	ND		20	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

QC Batch: 455175 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 60231848013, 60231848014, 60231848015, 60231848024, 60231848025

METHOD BLANK: 1863799 Matrix: Water
Associated Lab Samples: 60231848013, 60231848014, 60231848015, 60231848024, 60231848025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfate	mg/L	ND	1.0	0.15	11/16/16 08:42	

LABORATORY CONTROL SAMPLE: 1863800

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	5	5.1	102	90-110	

MATRIX SPIKE SAMPLE: 1863803

Parameter	Units	60231848025 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	19.7	5	25.7	120	80-120	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

QC Batch: 454180 Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Associated Lab Samples: 60231848013, 60231848014, 60231848015, 60231848024, 60231848025

METHOD BLANK: 1859716 Matrix: Water
Associated Lab Samples: 60231848013, 60231848014, 60231848015, 60231848024, 60231848025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.012	11/09/16 15:28	
Nitrogen, Nitrite	mg/L	ND	0.10	0.010	11/09/16 15:28	
Nitrogen, NO2 plus NO3	mg/L	ND	0.10	0.012	11/09/16 15:28	

LABORATORY CONTROL SAMPLE: 1859717

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.1	107	85-115	
Nitrogen, Nitrite	mg/L	1	0.97	97	90-110	
Nitrogen, NO2 plus NO3	mg/L	2	2.0	102	90-110	

MATRIX SPIKE SAMPLE: 1859720

Parameter	Units	60231848025 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	12.4	5	16.4	80	85-115	M1
Nitrogen, Nitrite	mg/L	ND	5	5.1	101	90-110	
Nitrogen, NO2 plus NO3	mg/L	12.4	10	21.4	91	90-110	

SAMPLE DUPLICATE: 1859719

Parameter	Units	60231805011 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Nitrate	mg/L	0.23	0.23	1	20	
Nitrogen, Nitrite	mg/L	0.022J	0.024J		20	
Nitrogen, NO2 plus NO3	mg/L	0.26	0.25	0	20	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

QC Batch: 454642 Analysis Method: SM 5310C
QC Batch Method: SM 5310C Analysis Description: 5310C Total Organic Carbon
Associated Lab Samples: 60231848013, 60231848014

METHOD BLANK: 1861911 Matrix: Water
Associated Lab Samples: 60231848013, 60231848014

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	0.085J	1.0	0.054	11/12/16 09:38	

LABORATORY CONTROL SAMPLE: 1861912

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	5	4.9	97	80-120	

MATRIX SPIKE SAMPLE: 1861913

Parameter	Units	60231927001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	1.4	5	4.5	62	80-120	M1

SAMPLE DUPLICATE: 1861914

Parameter	Units	60231927002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Organic Carbon	mg/L	1.4	1.4	4	25	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

QC Batch: 454961 Analysis Method: SM 5310C
QC Batch Method: SM 5310C Analysis Description: 5310C Total Organic Carbon
Associated Lab Samples: 60231848015, 60231848024, 60231848025

METHOD BLANK: 1863050 Matrix: Water
Associated Lab Samples: 60231848015, 60231848024, 60231848025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	0.063J	1.0	0.054	11/15/16 10:49	

LABORATORY CONTROL SAMPLE: 1863051

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	5	4.6	92	80-120	

MATRIX SPIKE SAMPLE: 1863053

Parameter	Units	60231848025 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	0.50J	5	4.9	89	80-120	

SAMPLE DUPLICATE: 1863052

Parameter	Units	60231810015 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Organic Carbon	mg/L	2740	2730	0	25	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALIFIERS

Project: FORT SMITH, AR
Pace Project No.: 60231848

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-K	Pace Analytical Services - Kansas City

BATCH QUALIFIERS

Batch: 454817

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

Batch: 455179

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

Batch: 455400

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

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L3	Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
R1	RPD value was outside control limits.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: FORT SMITH, AR
Pace Project No.: 60231848

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60231848013	**MW-87-201611**	EPA 3010	454539	EPA 6010	454595
60231848014	**MW-89-201611**	EPA 3010	454539	EPA 6010	454595
60231848015	**TMW-11-201611**	EPA 3010	454539	EPA 6010	454595
60231848024	**TMW-10-201611**	EPA 3010	454539	EPA 6010	454595
60231848025	**ITMW-9-201611**	EPA 3010	454539	EPA 6010	454595
60231848001	**MW-60R-201611**	EPA 5030B/8260	454535		
60231848002	**MW-46R-201611**	EPA 5030B/8260	454535		
60231848002	**MW-46R-201611**	EPA 5030B/8260	454817		
60231848003	**MW-185-201611**	EPA 5030B/8260	454535		
60231848006	**MW-22-201611**	EPA 5030B/8260	454535		
60231848008	**MW-175-201611**	EPA 5030B/8260	454535		
60231848009	**DUP-07-201611**	EPA 5030B/8260	454535		
60231848009	**DUP-07-201611**	EPA 5030B/8260	454817		
60231848010	**MW-57R-201611**	EPA 5030B/8260	454535		
60231848010	**MW-57R-201611**	EPA 5030B/8260	454950		
60231848011	**MW-56R-201611**	EPA 5030B/8260	454535		
60231848011	**MW-56R-201611**	EPA 5030B/8260	454950		
60231848012	**MW-176-201611**	EPA 5030B/8260	454535		
60231848012	**MW-176-201611**	EPA 5030B/8260	455179		
60231848013	**MW-87-201611**	EPA 5030B/8260	454535		
60231848013	**MW-87-201611**	EPA 5030B/8260	455179		
60231848014	**MW-89-201611**	EPA 5030B/8260	454950		
60231848015	**TMW-11-201611**	EPA 5030B/8260	455179		
60231848016	**DUP-05-201611**	EPA 5030B/8260	454950		
60231848016	**DUP-05-201611**	EPA 5030B/8260	455179		
60231848017	**MW-190-201611**	EPA 5030B/8260	454950		
60231848018	**MW-98-201611**	EPA 5030B/8260	454950		
60231848019	**MW-191-201611**	EPA 5030B/8260	454950		
60231848020	**MW-97-201611**	EPA 5030B/8260	454950		
60231848021	**MW-96-201611**	EPA 5030B/8260	454950		
60231848022	**MW-184-201611**	EPA 5030B/8260	454950		
60231848023	**EB-02-201611**	EPA 5030B/8260	454950		
60231848024	**TMW-10-201611**	EPA 5030B/8260	455179		
60231848025	**ITMW-9-201611**	EPA 5030B/8260	454968		
60231848025	**ITMW-9-201611**	EPA 5030B/8260	455400		
60231848026	**TB-1-201611**	EPA 5030B/8260	454950		
60231848027	**TB-3-201611**	EPA 5030B/8260	454950		
60231848004	**IW-77-201611**	EPA 5030B/8260	454708		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: FORT SMITH, AR
Pace Project No.: 60231848

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60231848005	**IW-78-201611**	EPA 5030B/8260	454708		
60231848007	**MW-24-201611**	EPA 5030B/8260	454708		
60231848013	**MW-87-201611**	SM 3500-Fe B#4	456110		
60231848014	**MW-89-201611**	SM 3500-Fe B#4	456110		
60231848015	**TMW-11-201611**	SM 3500-Fe B#4	456110		
60231848024	**TMW-10-201611**	SM 3500-Fe B#4	456110		
60231848025	**ITMW-9-201611**	SM 3500-Fe B#4	456110		
60231848013	**MW-87-201611**	SM 4500-S-2 D	454733		
60231848014	**MW-89-201611**	SM 4500-S-2 D	454733		
60231848015	**TMW-11-201611**	SM 4500-S-2 D	454733		
60231848024	**TMW-10-201611**	SM 4500-S-2 D	454733		
60231848025	**ITMW-9-201611**	SM 4500-S-2 D	454733		
60231848013	**MW-87-201611**	EPA 300.0	455175		
60231848014	**MW-89-201611**	EPA 300.0	455175		
60231848015	**TMW-11-201611**	EPA 300.0	455175		
60231848024	**TMW-10-201611**	EPA 300.0	455175		
60231848025	**ITMW-9-201611**	EPA 300.0	455175		
60231848013	**MW-87-201611**	EPA 353.2	454180		
60231848014	**MW-89-201611**	EPA 353.2	454180		
60231848015	**TMW-11-201611**	EPA 353.2	454180		
60231848024	**TMW-10-201611**	EPA 353.2	454180		
60231848025	**ITMW-9-201611**	EPA 353.2	454180		
60231848013	**MW-87-201611**	SM 5310C	454642		
60231848014	**MW-89-201611**	SM 5310C	454642		
60231848015	**TMW-11-201611**	SM 5310C	454961		
60231848024	**TMW-10-201611**	SM 5310C	454961		
60231848025	**ITMW-9-201611**	SM 5310C	454961		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
www.pacelabs.com

Sample Condition Upon Receipt

WO# : 60231848

60231848

Client Name: Environ

Courier: FedEx ☒ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☐ Client ☐ Other ☐

Tracking #: 8103 0090 9404 , 9404 Pace Shipping Label Used? Yes ☐ No ☐

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

Packing Material: Bubble Wrap ☐ Bubble Bags ☒ Foam ☐ None ☐ Other ☐

Thermometer Used: ~~T-266~~ (CF +0.7) / T-239 (CF -0.5) **Type of Ice:** (Wet) Blue None

Cooler Temperature (°C): **As-read** 20 0.9 **Corr. Factor** (CF +0.7) CF -0.5 **Corrected** 2.7 1.6

Date and initials of person examining contents: JB 11/9

Temperature should be above freezing to 6°C

Chain of Custody present:	☒Yes ☐No ☐N/A	
Chain of Custody relinquished:	☒Yes ☐No ☐N/A	
Samples arrived within holding time:	☒Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☐Yes ☒No ☐N/A	NO2 / NO3
Rush Turn Around Time requested:	☐Yes ☒No ☐N/A	
Sufficient volume:	☒Yes ☐No ☐N/A	
Correct containers used:	☒Yes ☐No ☐N/A	
Pace containers used:	☒Yes ☐No ☐N/A	
Containers intact:	☒Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☒N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☒N/A	
Sample labels match COC: Date / time / ID / analyses	☒Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: WT	☐Yes ☒No ☐N/A	
Containers requiring pH preservation in compliance? (HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: (VOA), Micro, O&G, KS TPH, OK-DRO)	☒Yes ☐No ☐N/A	
Cyanide water sample checks: ☒ N/A Lead acetate strip turns dark? (Record only) Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No ☐Yes ☐No	
Trip Blank present:	☒Yes ☐No ☐N/A	
Headspace in VOA vials (>6mm):	☐Yes ☒No ☐N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☒N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☒N/A	

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: Colleen Clyne Date: 11/11/2016

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 3

Section A Required Client Information:

Company:	Environ
Address:	7500 College Blvd., Ste. 925
	Overland Park, KS 66210
Email To:	wstonestreet@ramboll.com
Phone: 913-553-5926	Fax:
Requested Due Date/TAT:	

Section B Required Project Information:

Report To:	Wendy Stonestreet
Copy To:	Tammy Gleason
Purchase Order No.:	NA
Project Name:	Fort Smith, AR
Project Number:	

Section C Invoice Information:

Attention:	Tammy Gleason
Company Name:	Environ
Address:	250 Monroe Ave. NW Grand Rapids
Pace Quote Reference:	Michigan, 49503
Pace Project Manager:	Colleen Clyne
Pace Profile #:	7444, line 1

REGULATORY AGENCY

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

Site Location STATE: AR

Section D Required Client Information

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

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	8260 VOCs	Sulfide	TOC	Sulfate	Nitrate, nitrite, unpres	6010-Iron	Ferric iron calc. (send field Ferrous)	ascorbic acid		Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
																												60231848
1	MW-16OL-20160111	WT	G			11/8/16	1250		3				X						X								(3) DUPH		W1
2	MW-46R-20160111	WT	G			11/8/16	1350		3				X						X										W2
3	MW-18S-20160111	WT	G			11/8/16	1640		3				X						X										W3
4	MW-77-20160111	WT	G			11/8/16	0929		3				X						X						X		(3) OTHER	7day hold	W4
5	MW-78-20160111	WT	G			11/8/16	1137		3				X						X						X			7day hold	W5
6	MW-22-20160111	WT	G			11/8/16	1316		3				X						X								(3) DUPH		W6
7	MW-24-20160111	WT	G			11/8/16	1635		3				X						X						X		(3) OTHER	7day hold	W7
8	MW-17S-20160111	WT	G			11/8/16	1240		3				X						X								(3) DUPH		W8
9	Dup-07-20160111	WT	G			11/8/16	1035		3				3						X										W9
10	MW-57R-20160111	WT	G			11/8/16	1035		3				3						X										W10
11	MW-51OR-20160111	WT	G			11/8/16	0905		3				3						X										W11
12	MW-17D-20160111	WT	G			11/8/16	1455		3				3						X										W12

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Victoria Stegler RE	11/8/16	1800		11/9	0910	2.7	Y	Y	Y
							1.6	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Victoria Stegler

SIGNATURE of SAMPLER: Victoria Stegler

DATE Signed (MM/DD/YY): 11/8/16

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

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

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

CHAIN-OF-CUSTODY / Analytical Request Document

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

Pace Analytical
www.pacelabs.com

Section A Required Client Information:

Company:	Environ
Address:	7500 College Blvd., Ste. 925
	Overland Park, KS 66210
Email To:	wstonestreet@ramboll.com
Phone: 913-553-5926	Fax:
Requested Due Date/TAT:	

Section B Required Project Information:

Report To:	Wendy Stonestreet
Copy To:	Tammy Gleason
Purchase Order No.:	NA
Project Name:	Fort Smith, AR
Project Number:	

Section C Invoice Information:

Attention:	Tammy Gleason
Company Name:	Environ
Address:	250 Monroe Ave. NW Grand Rapids
Pace Quote Reference:	Michigan, 49503
Pace Project Manager:	Colleen Clyne
Pace Profile #:	7444, line 1

REGULATORY AGENCY

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

Site Location STATE: AR

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

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

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	8260 VOCs	Sulfide	TOC	Sulfate	Nitrate, nitrite, unpres	6010-Iron	Ferric Iron calc. (send field Ferrous)		Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-87-20161111 BP3U AG3S BP3Z BP3N	WT	G			11/8/16	1700		9	X	X	X	X	X				X	X	X	X	X	X		(3)D69A		013
2	MW-89-20161111	WT	G			11/8/16	1515		9																		014
3	TMW-11-20161111	WT	G			11/8/16	0927		9																		015
4	DUP-05-20161111	WT	G			11/8/16	1700		3				X						X								016
5	MW-190-20161111	WT	G			11/8/16	1515		3				X						X								017
6	MW-98-20161111	WT	G			11/8/16	1315		3				X						X								018
7	MW-191-20161111 MS/MSD	WT	G			11/8/16	1635		3				X						X								-
8	MW-191-20161111	WT	G			11/8/16	1635		3				X						X					(6)D69A			019
9	MW-97-20161111	WT	G			11/8/16	1125		3				X						X					(3)D69A			020
10	MW-96-20161111	WT	G			11/8/16	1015		3				X						X								021
11	MW-184-20161111	WT	G			11/8/16	0825		3				X						X								022
12	EB-02-20161111	WT	G			11/8/16	1700		3				X						X								023

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Victoria Stratton RE	11/8/16	1800		11/9	0910	2.7	Y	Y	Y
							1.6	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Victoria Stratton

SIGNATURE of SAMPLER: Victoria Stratton

DATE Signed (MM/DD/YY): 11/8/16

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

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

CHAIN-OF-CUSTODY / Analytical Request Document

Pace Analytical
www.pacelabs.com

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

Page: 3 of 3

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Environ	Report To:	Wendy Stonestreet	Attention:	Tammy Gleason
Address:	7500 College Blvd., Ste. 925	Copy To:	Tammy Gleason	Company Name:	Environ
	Overland Park, KS 66210			Address:	250 Monroe Ave. NW Grand Rapids
Email To:	wstonestreet@ramboll.com	Purchase Order No.:	NA	Pace Quote Reference:	Michigan, 49503
Phone:	913-553-5926 Fax:	Project Name:	Fort Smith, AR	Pace Project Manager:	Colleen Clyne
Requested Due Date/TAT:		Project Number:		Pace Profile #:	7444, line 1

REGULATORY AGENCY

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

Site Location STATE: AR

Requested Analysis Filtered (Y/N)

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

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

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	8260 VOCs	Sulfide	TOC	Sulfate	Nitrate, nitrite, unpres	6010-Iron	Ferric Iron calc. (send field Ferrous)					Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 60231848
1	~~FB~~ TMW-10-20116 11	WT	G			11/8/16	0917		9																		(3) DGAH 024
2	TMW-9-20116 11	WT	G			11/8/16	1600		9																		(6) DGAH 025
3MS	~~MS/MSD~~ TMW-9-20116 11 MS/MSD	WT	G			11/8/16	1600		3																		-
4	TB-1-20116 11	WT	G			11/8/16	—		2																		(2) DGAH TB 026
5	TB-3-20116 11	WT	G			11/8/16	—		2																		027
6																											
7																											
8																											
9																											
10																											
11																											
12																											

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	Victoria Sieglen RG	11/8/16	1850		11/9	0910	2.7	Y	Y	Y
							1.6	Y	Y	F

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Victoria Sieglen

SIGNATURE of SAMPLER: Victoria Sieglen DATE Signed (MM/DD/YY): 11/8/16

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

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

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

November 28, 2016

Tamara Gleason
Ramboll Environ
250 Monroe Ave. NW
Ste 400
Grand Rapids, MI 49503

RE: Project: FORT SMITH, AR
Pace Project No.: 60231873

Dear Tamara Gleason:
Enclosed are the analytical results for sample(s) received by the laboratory on November 09, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Colleen Clyne

Colleen Clyne
colleen.clyne@pacelabs.com
Project Manager

Enclosures

cc: Johanna Pavlowsky, Ramboll Environ

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

CERTIFICATIONS

Project: FORT SMITH, AR
Pace Project No.: 60231873

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219
WY STR Certification #: 2456.01
Arkansas Certification #: 15-016-0
Illinois Certification #: 003097
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407
Utah Certification #: KS00021
Kansas Field Laboratory Accreditation: # E-92587
Missouri Certification: 10070

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

SAMPLE SUMMARY

Project: FORT SMITH, AR
Pace Project No.: 60231873

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60231873001	**VP-12-201611**	Water	11/08/16 12:30	11/09/16 09:10
60231873002	**VP-10-201611**	Water	11/08/16 10:05	11/09/16 09:10
60231873003	**VP-07-201611**	Water	11/08/16 13:00	11/09/16 09:10
60231873004	**VP-08-201611**	Water	11/08/16 13:20	11/09/16 09:10
60231873005	**VP-06-201611**	Water	11/08/16 14:04	11/09/16 09:10
60231873006	**VP-05-201611**	Water	11/08/16 14:12	11/09/16 09:10

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

SAMPLE ANALYTE COUNT

Project: FORT SMITH, AR
Pace Project No.: 60231873

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60231873001	**VP-12-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231873002	**VP-10-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231873003	**VP-07-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231873004	**VP-08-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231873005	**VP-06-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231873006	**VP-05-201611**	EPA 5030B/8260	PGH	38	PASI-K

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231873

Method: **EPA 5030B/8260**
Description: 8260 MSV
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
6 samples were analyzed for EPA 5030B/8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: 454968

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

- LCS (Lab ID: 1863068)
  - 1,1,2,2-Tetrachloroethane
  - Bromoform

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 454968

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60231848025,60231925008

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1863069)
  - Trichloroethene
- MSD (Lab ID: 1863070)
  - Dibromochloromethane
  - Trichloroethene
  - cis-1,2-Dichloroethene

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231873

Method: **EPA 5030B/8260**
Description: 8260 MSV
Client: Ramboll Environ_AR
Date: November 28, 2016

QC Batch: 454968

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60231848025,60231925008

R1: RPD value was outside control limits.

- MSD (Lab ID: 1863070)
  - 1,1,1-Trichloroethane
  - 2-Butanone (MEK)
  - 4-Methyl-2-pentanone (MIBK)
  - Acetone
- MSD (Lab ID: 1863072)
  - 1,1,2,2-Tetrachloroethane

QC Batch: 455400

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231873

Sample: VP-12-201611 **Lab ID: 60231873001** Collected: 11/08/16 12:30 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	**2.7J**	ug/L	10.0	1.9	1		11/16/16 09:40	67-64-1	
Benzene	**0.13J**	ug/L	1.0	0.060	1		11/16/16 09:40	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 09:40	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 09:40	75-25-2	L3
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 09:40	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 09:40	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 09:40	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 09:40	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 09:40	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 09:40	75-00-3	
Chloroform	**0.23J**	ug/L	1.0	0.14	1		11/16/16 09:40	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 09:40	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 09:40	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 09:40	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 09:40	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 09:40	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/16/16 09:40	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 09:40	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 09:40	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 09:40	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 09:40	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 09:40	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 09:40	591-78-6	
Methylene chloride	**0.33J**	ug/L	1.0	0.15	1		11/16/16 09:40	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/16/16 09:40	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 09:40	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 09:40	79-34-5	L3
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 09:40	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/16/16 09:40	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 09:40	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 09:40	79-00-5	
Trichloroethene	**0.55J**	ug/L	1.0	0.17	1		11/16/16 09:40	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/16/16 09:40	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 09:40	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	99	%	77-130		1		11/16/16 09:40	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	81-127		1		11/16/16 09:40	17060-07-0	
Toluene-d8 (S)	93	%	80-120		1		11/16/16 09:40	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 09:40		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231873

Sample: VP-10-201611 **Lab ID: 60231873002** Collected: 11/08/16 10:05 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/16/16 13:04	67-64-1	
Benzene	**0.18J**	ug/L	1.0	0.060	1		11/16/16 13:04	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 13:04	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 13:04	75-25-2	L3
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 13:04	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 13:04	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 13:04	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 13:04	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 13:04	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 13:04	75-00-3	
Chloroform	**0.70J**	ug/L	1.0	0.14	1		11/16/16 13:04	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 13:04	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 13:04	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 13:04	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 13:04	107-06-2	
1,1-Dichloroethene	**1.6**	ug/L	1.0	0.20	1		11/16/16 13:04	75-35-4	
cis-1,2-Dichloroethene	**16.0**	ug/L	1.0	0.080	1		11/16/16 13:04	156-59-2	
trans-1,2-Dichloroethene	**0.27J**	ug/L	1.0	0.20	1		11/16/16 13:04	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 13:04	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 13:04	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 13:04	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 13:04	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 13:04	591-78-6	
Methylene chloride	**0.35J**	ug/L	1.0	0.15	1		11/16/16 13:04	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/16/16 13:04	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 13:04	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 13:04	79-34-5	L3
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 13:04	127-18-4	
Toluene	**0.42J**	ug/L	1.0	0.17	1		11/16/16 13:04	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 13:04	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 13:04	79-00-5	
Trichloroethene	**278**	ug/L	5.0	0.85	5		11/17/16 14:16	79-01-6	
Vinyl chloride	**0.39J**	ug/L	1.0	0.13	1		11/16/16 13:04	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 13:04	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	77-130		1		11/16/16 13:04	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	81-127		1		11/16/16 13:04	17060-07-0	
Toluene-d8 (S)	91	%	80-120		1		11/16/16 13:04	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 13:04		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231873

Sample: VP-07-201611 **Lab ID: 60231873003** Collected: 11/08/16 13:00 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	**85.8**	ug/L	10.0	1.9	1		11/16/16 09:55	67-64-1	
Benzene	**0.95J**	ug/L	1.0	0.060	1		11/16/16 09:55	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 09:55	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 09:55	75-25-2	L3
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 09:55	74-83-9	
2-Butanone (MEK)	**8.9J**	ug/L	10.0	0.59	1		11/16/16 09:55	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 09:55	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 09:55	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 09:55	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 09:55	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/16/16 09:55	67-66-3	
Chloromethane	**0.59J**	ug/L	1.0	0.080	1		11/16/16 09:55	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 09:55	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 09:55	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 09:55	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 09:55	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/16/16 09:55	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 09:55	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 09:55	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 09:55	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 09:55	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 09:55	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 09:55	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/16/16 09:55	75-09-2	
4-Methyl-2-pentanone (MIBK)	**2.0J**	ug/L	10.0	0.42	1		11/16/16 09:55	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 09:55	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 09:55	79-34-5	L3
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 09:55	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/16/16 09:55	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 09:55	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 09:55	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/16/16 09:55	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/16/16 09:55	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 09:55	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	102	%	77-130		1		11/16/16 09:55	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	81-127		1		11/16/16 09:55	17060-07-0	
Toluene-d8 (S)	84	%	80-120		1		11/16/16 09:55	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 09:55		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231873

Sample: VP-08-201611 **Lab ID: 60231873004** Collected: 11/08/16 13:20 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	**113**	ug/L	10.0	1.9	1		11/16/16 10:10	67-64-1	
Benzene	**0.55J**	ug/L	1.0	0.060	1		11/16/16 10:10	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 10:10	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 10:10	75-25-2	L3
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 10:10	74-83-9	
2-Butanone (MEK)	**20.4**	ug/L	10.0	0.59	1		11/16/16 10:10	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 10:10	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 10:10	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 10:10	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 10:10	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/16/16 10:10	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 10:10	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 10:10	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 10:10	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 10:10	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 10:10	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/16/16 10:10	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 10:10	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 10:10	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 10:10	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 10:10	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 10:10	100-41-4	
2-Hexanone	**3.7J**	ug/L	10.0	1.2	1		11/16/16 10:10	591-78-6	
Methylene chloride	**0.26J**	ug/L	1.0	0.15	1		11/16/16 10:10	75-09-2	
4-Methyl-2-pentanone (MIBK)	**1.3J**	ug/L	10.0	0.42	1		11/16/16 10:10	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 10:10	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 10:10	79-34-5	L3
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 10:10	127-18-4	
Toluene	**0.43J**	ug/L	1.0	0.17	1		11/16/16 10:10	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 10:10	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 10:10	79-00-5	
Trichloroethene	**2.4**	ug/L	1.0	0.17	1		11/16/16 10:10	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/16/16 10:10	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 10:10	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	77-130		1		11/16/16 10:10	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	81-127		1		11/16/16 10:10	17060-07-0	
Toluene-d8 (S)	92	%	80-120		1		11/16/16 10:10	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 10:10		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231873

Sample: VP-06-201611 **Lab ID: 60231873005** Collected: 11/08/16 14:04 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	**80.6**	ug/L	10.0	1.9	1		11/16/16 10:24	67-64-1	
Benzene	**1.8**	ug/L	1.0	0.060	1		11/16/16 10:24	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 10:24	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 10:24	75-25-2	L3
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 10:24	74-83-9	
2-Butanone (MEK)	**13.0**	ug/L	10.0	0.59	1		11/16/16 10:24	78-93-3	
Carbon disulfide	**2.7J**	ug/L	5.0	0.12	1		11/16/16 10:24	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 10:24	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 10:24	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 10:24	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/16/16 10:24	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 10:24	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 10:24	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 10:24	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 10:24	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 10:24	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/16/16 10:24	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 10:24	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 10:24	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 10:24	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 10:24	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 10:24	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 10:24	591-78-6	
Methylene chloride	**0.24J**	ug/L	1.0	0.15	1		11/16/16 10:24	75-09-2	
4-Methyl-2-pentanone (MIBK)	**1.2J**	ug/L	10.0	0.42	1		11/16/16 10:24	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 10:24	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 10:24	79-34-5	L3
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 10:24	127-18-4	
Toluene	**0.24J**	ug/L	1.0	0.17	1		11/16/16 10:24	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 10:24	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 10:24	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/16/16 10:24	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/16/16 10:24	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 10:24	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	77-130		1		11/16/16 10:24	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	81-127		1		11/16/16 10:24	17060-07-0	
Toluene-d8 (S)	89	%	80-120		1		11/16/16 10:24	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 10:24		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231873

Sample: VP-05-201611 **Lab ID: 60231873006** Collected: 11/08/16 14:12 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	**112**	ug/L	10.0	1.9	1		11/16/16 10:39	67-64-1	
Benzene	**1.5**	ug/L	1.0	0.060	1		11/16/16 10:39	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 10:39	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 10:39	75-25-2	L3
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 10:39	74-83-9	
2-Butanone (MEK)	**24.6**	ug/L	10.0	0.59	1		11/16/16 10:39	78-93-3	
Carbon disulfide	**2.1J**	ug/L	5.0	0.12	1		11/16/16 10:39	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 10:39	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 10:39	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 10:39	75-00-3	
Chloroform	**0.59J**	ug/L	1.0	0.14	1		11/16/16 10:39	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 10:39	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 10:39	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 10:39	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 10:39	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 10:39	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/16/16 10:39	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 10:39	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 10:39	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 10:39	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 10:39	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 10:39	100-41-4	
2-Hexanone	**9.5J**	ug/L	10.0	1.2	1		11/16/16 10:39	591-78-6	
Methylene chloride	**0.71J**	ug/L	1.0	0.15	1		11/16/16 10:39	75-09-2	
4-Methyl-2-pentanone (MIBK)	**2.6J**	ug/L	10.0	0.42	1		11/16/16 10:39	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 10:39	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 10:39	79-34-5	L3
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 10:39	127-18-4	
Toluene	**0.47J**	ug/L	1.0	0.17	1		11/16/16 10:39	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 10:39	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 10:39	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/16/16 10:39	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/16/16 10:39	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 10:39	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	102	%	77-130		1		11/16/16 10:39	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	81-127		1		11/16/16 10:39	17060-07-0	
Toluene-d8 (S)	96	%	80-120		1		11/16/16 10:39	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 10:39		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231873

QC Batch: 454968 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60231873001, 60231873002, 60231873003, 60231873004, 60231873005, 60231873006

METHOD BLANK: 1863067 Matrix: Water
Associated Lab Samples: 60231873001, 60231873002, 60231873003, 60231873004, 60231873005, 60231873006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	0.11	11/16/16 08:42	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.15	11/16/16 08:42	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.20	11/16/16 08:42	
1,1-Dichloroethane	ug/L	ND	1.0	0.050	11/16/16 08:42	
1,1-Dichloroethene	ug/L	ND	1.0	0.20	11/16/16 08:42	
1,2-Dichloroethane	ug/L	ND	1.0	0.12	11/16/16 08:42	
1,2-Dichloropropane	ug/L	ND	1.0	0.16	11/16/16 08:42	
2-Butanone (MEK)	ug/L	ND	10.0	0.59	11/16/16 08:42	
2-Hexanone	ug/L	ND	10.0	1.2	11/16/16 08:42	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	0.42	11/16/16 08:42	
Acetone	ug/L	ND	10.0	1.9	11/16/16 08:42	
Benzene	ug/L	ND	1.0	0.060	11/16/16 08:42	
Bromodichloromethane	ug/L	ND	1.0	0.19	11/16/16 08:42	
Bromoform	ug/L	ND	1.0	0.070	11/16/16 08:42	
Bromomethane	ug/L	ND	5.0	0.16	11/16/16 08:42	
Carbon disulfide	ug/L	ND	5.0	0.12	11/16/16 08:42	
Carbon tetrachloride	ug/L	ND	1.0	0.18	11/16/16 08:42	
Chlorobenzene	ug/L	ND	1.0	0.21	11/16/16 08:42	
Chloroethane	ug/L	ND	1.0	0.15	11/16/16 08:42	
Chloroform	ug/L	ND	1.0	0.14	11/16/16 08:42	
Chloromethane	ug/L	ND	1.0	0.080	11/16/16 08:42	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.080	11/16/16 08:42	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.14	11/16/16 08:42	
Dibromochloromethane	ug/L	ND	1.0	0.21	11/16/16 08:42	
Ethylbenzene	ug/L	ND	1.0	0.18	11/16/16 08:42	
Methylene chloride	ug/L	ND	1.0	0.15	11/16/16 08:42	
Styrene	ug/L	ND	1.0	0.12	11/16/16 08:42	
Tetrachloroethene	ug/L	ND	1.0	0.10	11/16/16 08:42	
Toluene	ug/L	ND	1.0	0.17	11/16/16 08:42	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.20	11/16/16 08:42	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.12	11/16/16 08:42	
Trichloroethene	ug/L	ND	1.0	0.17	11/16/16 08:42	
Vinyl chloride	ug/L	ND	1.0	0.13	11/16/16 08:42	
Xylene (Total)	ug/L	ND	3.0	0.42	11/16/16 08:42	
1,2-Dichloroethane-d4 (S)	%	99	81-127		11/16/16 08:42	
4-Bromofluorobenzene (S)	%	97	77-130		11/16/16 08:42	
Toluene-d8 (S)	%	91	80-120		11/16/16 08:42	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231873

LABORATORY CONTROL SAMPLE: 1863068

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	20.0	100	81-116	
1,1,2,2-Tetrachloroethane	ug/L	20	24.6	123	72-117	L0
1,1,2-Trichloroethane	ug/L	20	21.7	108	79-108	
1,1-Dichloroethane	ug/L	20	18.7	94	83-117	
1,1-Dichloroethene	ug/L	20	18.0	90	74-114	
1,2-Dichloroethane	ug/L	20	20.6	103	72-116	
1,2-Dichloropropane	ug/L	20	22.2	111	80-120	
2-Butanone (MEK)	ug/L	100	92.7	93	67-129	
2-Hexanone	ug/L	100	102	102	70-128	
4-Methyl-2-pentanone (MIBK)	ug/L	100	101	101	80-120	
Acetone	ug/L	100	87.1	87	56-142	
Benzene	ug/L	20	21.6	108	79-116	
Bromodichloromethane	ug/L	20	21.3	107	80-120	
Bromoform	ug/L	20	23.3	116	73-114	L0
Bromomethane	ug/L	20	18.7	94	49-153	
Carbon disulfide	ug/L	20	18.1	90	82-121	
Carbon tetrachloride	ug/L	20	19.2	96	80-116	
Chlorobenzene	ug/L	20	21.0	105	80-120	
Chloroethane	ug/L	20	18.5	92	67-124	
Chloroform	ug/L	20	19.2	96	79-120	
Chloromethane	ug/L	20	14.7	74	10-192	
cis-1,2-Dichloroethene	ug/L	20	18.5	93	80-120	
cis-1,3-Dichloropropene	ug/L	20	21.2	106	80-120	
Dibromochloromethane	ug/L	20	22.8	114	80-120	
Ethylbenzene	ug/L	20	21.3	107	80-120	
Methylene chloride	ug/L	20	16.4	82	80-120	
Styrene	ug/L	20	21.6	108	80-120	
Tetrachloroethene	ug/L	20	21.4	107	80-120	
Toluene	ug/L	20	21.0	105	80-120	
trans-1,2-Dichloroethene	ug/L	20	18.5	93	78-108	
trans-1,3-Dichloropropene	ug/L	20	21.7	109	85-120	
Trichloroethene	ug/L	20	20.5	102	76-114	
Vinyl chloride	ug/L	20	16.6	83	69-129	
Xylene (Total)	ug/L	60	63.0	105	80-120	
1,2-Dichloroethane-d4 (S)	%			97	81-127	
4-Bromofluorobenzene (S)	%			108	77-130	
Toluene-d8 (S)	%			96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1863069 1863070

Parameter	Units	60231848025 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	21.4	24.7	107	123	70-135	14	12	R1
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	19.4	21.0	97	105	54-136	8	15	
1,1,2-Trichloroethane	ug/L	ND	20	20	20.3	20.2	101	101	70-113	0	15	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231873

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1863069 1863070

Parameter	Units	60231848025 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethane	ug/L	ND	20	20	19.6	21.8	98	109	80-122	11	13	
1,1-Dichloroethene	ug/L	0.48J	20	20	20.6	22.3	101	109	73-118	8	14	
1,2-Dichloroethane	ug/L	ND	20	20	20.0	21.4	100	107	54-137	7	41	
1,2-Dichloropropane	ug/L	ND	20	20	20.8	21.2	104	106	77-116	2	12	
2-Butanone (MEK)	ug/L	ND	100	100	77.2	96.9	77	97	30-127	23	18	R1
2-Hexanone	ug/L	ND	100	100	91.5	99.2	91	99	44-124	8	18	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	100	81.2	95.9	81	96	70-124	17	15	R1
Acetone	ug/L	ND	100	100	72.2	94.1	70	92	10-132	26	20	R1
Benzene	ug/L	ND	20	20	22.4	22.2	112	111	37-151	1	40	
Bromodichloromethane	ug/L	ND	20	20	20.7	21.9	103	110	76-118	6	11	
Bromoform	ug/L	ND	20	20	20.0	20.4	100	102	64-113	2	15	
Bromomethane	ug/L	ND	20	20	15.0	19.3	75	97	41-154	25	43	
Carbon disulfide	ug/L	ND	20	20	19.3	21.5	96	108	80-139	11	17	
Carbon tetrachloride	ug/L	ND	20	20	20.5	22.5	103	112	75-127	9	13	
Chlorobenzene	ug/L	ND	20	20	21.0	20.7	105	103	79-113	2	13	
Chloroethane	ug/L	ND	20	20	20.1	21.7	101	109	53-154	8	20	
Chloroform	ug/L	0.36J	20	20	19.8	22.1	97	109	74-115	11	12	
Chloromethane	ug/L	ND	20	20	14.6	19.3	73	97	33-169	28	72	
cis-1,2-Dichloroethene	ug/L	73.0	20	20	86.0	101	65	140	58-139	16	40	M1
cis-1,3-Dichloropropene	ug/L	ND	20	20	17.1	18.8	85	94	70-120	10	14	
Dibromochloromethane	ug/L	ND	20	20	20.7	22.9	103	115	77-114	10	13	M1
Ethylbenzene	ug/L	ND	20	20	22.0	21.0	110	105	29-151	4	45	
Methylene chloride	ug/L	0.24J	20	20	16.7	19.0	82	94	76-120	13	13	
Styrene	ug/L	ND	20	20	19.8	19.5	99	97	66-127	2	15	
Tetrachloroethene	ug/L	ND	20	20	21.6	22.7	108	113	77-118	5	14	
Toluene	ug/L	ND	20	20	20.2	20.3	101	102	37-147	0	43	
trans-1,2-Dichloroethene	ug/L	0.88J	20	20	20.2	22.3	96	107	69-125	10	16	
trans-1,3-Dichloropropene	ug/L	ND	20	20	18.2	18.5	91	93	71-118	2	13	
Trichloroethene	ug/L	249	20	20	277	287	140	188	71-116	3	14	M1
Vinyl chloride	ug/L	0.17J	20	20	17.9	20.9	89	103	65-142	15	22	
Xylene (Total)	ug/L	ND	60	60	65.4	62.7	109	104	27-156	4	46	
1,2-Dichloroethane-d4 (S)	%						96	104	81-127			
4-Bromofluorobenzene (S)	%						97	101	77-130			
Toluene-d8 (S)	%						95	92	80-120			
Preservation pH		1.0			1.0	1.0				0		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1863071 1863072

Parameter	Units	60231925008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	20.7	21.9	104	109	70-135	5	12	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	18.9	22.5	95	113	54-136	17	15	R1
1,1,2-Trichloroethane	ug/L	ND	20	20	20.7	20.5	103	102	70-113	1	15	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231873

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1863071 1863072

Parameter	Units	60231925008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethane	ug/L	ND	20	20	19.4	20.3	97	101	80-122	5	13	
1,1-Dichloroethene	ug/L	ND	20	20	19.3	21.4	97	107	73-118	10	14	
1,2-Dichloroethane	ug/L	ND	20	20	19.2	20.3	96	102	54-137	6	41	
1,2-Dichloropropane	ug/L	ND	20	20	19.3	20.6	96	103	77-116	7	12	
2-Butanone (MEK)	ug/L	ND	100	100	77.0	88.9	77	89	30-127	14	18	
2-Hexanone	ug/L	ND	100	100	89.5	93.9	90	94	44-124	5	18	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	100	78.4	90.2	78	90	70-124	14	15	
Acetone	ug/L	2.1J	100	100	78.9	84.2	77	82	10-132	6	20	
Benzene	ug/L	ND	20	20	22.0	21.8	110	109	37-151	1	40	
Bromodichloromethane	ug/L	ND	20	20	18.4	20.5	92	102	76-118	11	11	
Bromoform	ug/L	ND	20	20	20.9	21.8	104	109	64-113	4	15	
Bromomethane	ug/L	ND	20	20	17.5	19.4	87	97	41-154	10	43	
Carbon disulfide	ug/L	ND	20	20	19.6	20.2	98	101	80-139	3	17	
Carbon tetrachloride	ug/L	ND	20	20	20.5	22.1	102	110	75-127	8	13	
Chlorobenzene	ug/L	ND	20	20	21.1	21.2	106	106	79-113	0	13	
Chloroethane	ug/L	ND	20	20	21.0	20.6	105	103	53-154	2	20	
Chloroform	ug/L	ND	20	20	19.1	19.7	95	99	74-115	3	12	
Chloromethane	ug/L	ND	20	20	21.5	16.3	108	81	33-169	28	72	
cis-1,2-Dichloroethene	ug/L	ND	20	20	18.5	20.1	93	100	58-139	8	40	
cis-1,3-Dichloropropene	ug/L	ND	20	20	16.3	18.6	82	93	70-120	13	14	
Dibromochloromethane	ug/L	ND	20	20	21.3	21.3	106	107	77-114	0	13	
Ethylbenzene	ug/L	ND	20	20	22.5	21.8	113	109	29-151	3	45	
Methylene chloride	ug/L	ND	20	20	18.0	18.4	90	92	76-120	2	13	
Styrene	ug/L	ND	20	20	21.7	21.6	109	108	66-127	0	15	
Tetrachloroethene	ug/L	ND	20	20	23.0	21.4	115	107	77-118	7	14	
Toluene	ug/L	ND	20	20	20.4	20.2	102	101	37-147	1	43	
trans-1,2-Dichloroethene	ug/L	ND	20	20	18.9	20.3	94	101	69-125	7	16	
trans-1,3-Dichloropropene	ug/L	ND	20	20	18.2	18.7	91	93	71-118	2	13	
Trichloroethene	ug/L	ND	20	20	22.6	21.8	113	109	71-116	3	14	
Vinyl chloride	ug/L	ND	20	20	19.8	19.8	99	99	65-142	0	22	
Xylene (Total)	ug/L	ND	60	60	66.1	69.5	110	116	27-156	5	46	
1,2-Dichloroethane-d4 (S)	%						94	98	81-127			
4-Bromofluorobenzene (S)	%						99	109	77-130			
Toluene-d8 (S)	%						95	94	80-120			
Preservation pH		1.0			1.0	1.0				0		

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231873

QC Batch: 455400 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60231873002

METHOD BLANK: 1864631 Matrix: Water
Associated Lab Samples: 60231873002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Trichloroethene	ug/L	ND	1.0	0.17	11/17/16 09:25	
1,2-Dichloroethane-d4 (S)	%	98	81-127		11/17/16 09:25	
4-Bromofluorobenzene (S)	%	103	77-130		11/17/16 09:25	
Toluene-d8 (S)	%	88	80-120		11/17/16 09:25	

LABORATORY CONTROL SAMPLE: 1864633

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Trichloroethene	ug/L	20	20.6	103	76-114	
1,2-Dichloroethane-d4 (S)	%			104	81-127	
4-Bromofluorobenzene (S)	%			103	77-130	
Toluene-d8 (S)	%			85	80-120	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALIFIERS

Project: FORT SMITH, AR
Pace Project No.: 60231873

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-K	Pace Analytical Services - Kansas City

BATCH QUALIFIERS

Batch: 455400

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

ANALYTE QUALIFIERS

L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L3	Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
R1	RPD value was outside control limits.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: FORT SMITH, AR
Pace Project No.: 60231873

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60231873001	**VP-12-201611**	EPA 5030B/8260	454968		
60231873002	**VP-10-201611**	EPA 5030B/8260	454968		
60231873002	**VP-10-201611**	EPA 5030B/8260	455400		
60231873003	**VP-07-201611**	EPA 5030B/8260	454968		
60231873004	**VP-08-201611**	EPA 5030B/8260	454968		
60231873005	**VP-06-201611**	EPA 5030B/8260	454968		
60231873006	**VP-05-201611**	EPA 5030B/8260	454968		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
www.pacelabs.com

Sample Condition Upon Receipt

WO# : 60231873

60231873

Client Name: Environ

Courier: FedEx ☒ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☐ Client ☐ Other ☐

Tracking #: 8103 0090 9404, 9404 Pace Shipping Label Used? Yes ☐ No ☐

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

Packing Material: Bubble Wrap ☐ Bubble Bags ☒ Foam ☐ None ☐ Other ☐

Thermometer Used: (CF +0.7) T-266 / (CF -0.5) T-239 **Type of Ice:** (Wet) Blue None

Cooler Temperature (°C): **As-read** 20 0.9 **Corr. Factor** (CF +0.7) (CF -0.5) **Corrected** 27 1.6

Date and initials of person examining contents: 11/9 JB

Temperature should be above freezing to 6°C

Chain of Custody present:	☒Yes ☐No ☐N/A	
Chain of Custody relinquished:	☒Yes ☐No ☐N/A	
Samples arrived within holding time:	☒Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☐Yes ☒No ☐N/A	
Rush Turn Around Time requested:	☐Yes ☒No ☐N/A	
Sufficient volume:	☒Yes ☐No ☐N/A	
Correct containers used:	☒Yes ☐No ☐N/A	
Pace containers used:	☒Yes ☐No ☐N/A	
Containers intact:	☒Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☒N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☒N/A	
Sample labels match COC: Date / time / ID / analyses	☒Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: WT	☐Yes ☒No ☐N/A	
Containers requiring pH preservation in compliance? (HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: (VOA) Micro, O&G, KS TPH, OK-DRO)	☐Yes ☐No ☒N/A	
Cyanide water sample checks: ☒ N/A Lead acetate strip turns dark? (Record only) Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No ☐Yes ☐No	
Trip Blank present:	☐Yes ☒No ☐N/A	
Headspace in VOA vials (>6mm):	☐Yes ☒No ☐N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☒N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☒N/A	

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: Colleen Clayton Date: 11/11/2016

CHAIN-OF-CUSTODY / Analytical Request Document

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

Pace Analytical
www.pacelabs.com

Page: 1 of 1

Section A — **Required** Client Information:

Company:	Environ
Address:	7500 College Blvd., Ste. 925
	Overland Park, KS 66210
Email To:	wstonestreet@ramboll.com
Phone: 913-553-5926	Fax:
Requested Due Date/TAT:	Standard

Section B — **Required** Project Information:

Report To:	Wendy Stonestreet
Copy To:	Tammy Gleason
Purchase Order No.:	NA
Project Name:	Fort Smith, AR
Project Number:	

Section C — Invoice Information:

Attention:	Tammy Gleason
Company Name:	Environ
Address:	250 Monroe Ave. NW Grand Rapids
Pace Quote Reference:	Michigan, 49503
Pace Project Manager:	Colleen Clyne
Pace Profile #:	7444, line 1

REGULATORY AGENCY

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

Site Location STATE: AR

Section D — **Required** Client Information

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

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N: N	8260 VOCs	Sulfide	TOC	Sulfate	Nitrate, nitrite, unpres	6010-Iron	Ferric Iron calc. (send field Ferrous)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	VP-12-201611	WT	G	11/8/16	1230	—	—	-	3				X					X							N	60231873 (3) D611 a1
2	VP-10-201611	WT	G	11/8/16	1005	—	—	-	3				X					X								a2
3	VP-07-201611	WT	G	11/8/16	1300	—	—	-	3				X					X								a3
4	VP-08-201611	WT	G	11/8/16	1320	—	—	-	3				X					X								a4
5	VP-06-201611	WT	G	11/8/16	1404	—	—	-	3				X					X								a5
6	VP-05-201611	WT	G	11/8/16	1412	—	—	-	3				X					X							↓	a6
7																										
8																										
9																										
10																										
11																										
12																										

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	[signature] Ramboll Environ	11/8/16	1800	[signature] Pace	11/9	0910	2.7	Y	Y	Y
							1.6	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Nick Zurmeller

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 11/08/16

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

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

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

November 28, 2016

Tamara Gleason
Ramboll Environ
250 Monroe Ave. NW
Ste 400
Grand Rapids, MI 49503

RE: Project: WHIRLPOOL FT SMITH
Pace Project No.: 60231974

Dear Tamara Gleason:
Enclosed are the analytical results for sample(s) received by the laboratory on November 10, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Colleen Clyne
colleen.clyne@pacelabs.com
Project Manager

Enclosures

cc: Johanna Pavlowsky, Ramboll Environ

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

CERTIFICATIONS

Project: WHIRLPOOL FT SMITH
Pace Project No.: 60231974

Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414
525 N 8th Street, Salina, KS 67401
Alaska Certification UST-107
A2LA Certification #: 2926.01
Alaska Certification #: UST-078
Alaska Certification #MN00064
Alabama Certification #40770
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
Colorado Certification #Pace
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: 8TMS-L
Florida/NELAP Certification #: E87605
Guam Certification #:14-008r
Georgia Certification #: 959
Georgia EPD #: Pace
Idaho Certification #: MN00064
Hawaii Certification #MN00064
Illinois Certification #: 200011
Indiana Certification#C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky Dept of Envi. Protection - DW #90062
Kentucky Dept of Envi. Protection - WW #:90062
Louisiana DEQ Certification #: 3086
Louisiana DHH #: LA140001
Maine Certification #: 2013011
Maryland Certification #: 322
Michigan DEPH Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT0092
Nevada Certification #: MN_00064
Nebraska Certification #: Pace
New Jersey Certification #: MN-002
New York Certification #: 11647
North Carolina Certification #: 530
North Carolina State Public Health #: 27700
North Dakota Certification #: R-036
Ohio EPA #: 4150
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Saipan (CNMI) #:MP0003
South Carolina #:74003001
Texas Certification #: T104704192
Tennessee Certification #: 02818
Utah Certification #: MN000642013-4
Virginia DGS Certification #: 251
Virginia/VELAP Certification #: Pace
Washington Certification #: C486
West Virginia Certification #: 382
West Virginia DHHR #:9952C
Wisconsin Certification #: 999407970

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

SAMPLE SUMMARY

Project: WHIRLPOOL FT SMITH
Pace Project No.: 60231974

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60231974001	**VP-09-201611**	Air	11/08/16 17:59	11/10/16 08:32

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

SAMPLE ANALYTE COUNT

Project: WHIRLPOOL FT SMITH
Pace Project No.: 60231974

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60231974001	**VP-09-201611**	TO-15	NCK	9	PASI-M

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: WHIRLPOOL FT SMITH
Pace Project No.: 60231974

Method: **TO-15**
Description: TO15 MSV AIR
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
1 sample was analyzed for TO-15. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: WHIRLPOOL FT SMITH
Pace Project No.: 60231974

Sample: VP-09-201611 **Lab ID: 60231974001** Collected: 11/08/16 17:59 Received: 11/10/16 08:32 Matrix: Air

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
1,1-Dichloroethane	ND	ug/m3	1.1	0.22	1.39		11/22/16 15:06	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.57	0.28	1.39		11/22/16 15:06	107-06-2	
1,1-Dichloroethene	**0.59J**	ug/m3	1.1	0.33	1.39		11/22/16 15:06	75-35-4	
cis-1,2-Dichloroethene	**0.68J**	ug/m3	1.1	0.34	1.39		11/22/16 15:06	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.1	0.53	1.39		11/22/16 15:06	156-60-5	
Tetrachloroethene	**0.50J**	ug/m3	0.96	0.39	1.39		11/22/16 15:06	127-18-4	
1,1,1-Trichloroethane	ND	ug/m3	1.5	0.34	1.39		11/22/16 15:06	71-55-6	
Trichloroethene	**464**	ug/m3	15.3	7.7	27.8		11/23/16 11:04	79-01-6	
Vinyl chloride	**0.58**	ug/m3	0.36	0.27	1.39		11/22/16 15:06	75-01-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: WHIRLPOOL FT SMITH
Pace Project No.: 60231974

QC Batch: 448553 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 60231974001

METHOD BLANK: 2455389 Matrix: Air
Associated Lab Samples: 60231974001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	1.1	0.25	11/22/16 09:28	
1,1-Dichloroethane	ug/m3	ND	0.82	0.16	11/22/16 09:28	
1,1-Dichloroethene	ug/m3	ND	0.81	0.24	11/22/16 09:28	
1,2-Dichloroethane	ug/m3	ND	0.41	0.20	11/22/16 09:28	
cis-1,2-Dichloroethene	ug/m3	ND	0.81	0.25	11/22/16 09:28	
Tetrachloroethene	ug/m3	ND	0.69	0.28	11/22/16 09:28	
trans-1,2-Dichloroethene	ug/m3	ND	0.81	0.38	11/22/16 09:28	
Trichloroethene	ug/m3	ND	0.55	0.28	11/22/16 09:28	
Vinyl chloride	ug/m3	ND	0.26	0.20	11/22/16 09:28	

LABORATORY CONTROL SAMPLE: 2455390

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/m3	55.5	57.8	104	60-143	
1,1-Dichloroethane	ug/m3	41.1	44.7	109	62-139	
1,1-Dichloroethene	ug/m3	40.3	44.1	109	62-135	
1,2-Dichloroethane	ug/m3	41.1	43.5	106	61-144	
cis-1,2-Dichloroethene	ug/m3	40.3	42.8	106	65-139	
Tetrachloroethene	ug/m3	68.9	67.0	97	60-142	
trans-1,2-Dichloroethene	ug/m3	40.3	42.5	105	67-137	
Trichloroethene	ug/m3	54.6	56.9	104	60-144	
Vinyl chloride	ug/m3	26	28.7	110	63-135	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALIFIERS

Project: WHIRLPOOL FT SMITH
Pace Project No.: 60231974

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-M Pace Analytical Services - Minneapolis

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WHIRLPOOL FT SMITH
Pace Project No.: 60231974

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60231974001	**VP-09-201611**	TO-15	448553		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
www.pacelabs.com

Sample Condition Upon Receipt

WO# : 60231974

60231974

Client Name: Ramboll Environ

Courier: FedEx ☐ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☐ Client ☑ Other ☐

Tracking #: _____ Pace Shipping Label Used? Yes ☐ No ☑

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

Packing Material: Bubble Wrap ☐ Bubble Bags ☐ Foam ☑ None ☐ Other ☐

Thermometer Used: T-266 / T-239 (CF +0.7 / CF -0.5) **Type of Ice:** Wet Blue (None)

BB 11/10/16

Date and initials of person examining contents:

Cooler Temperature (°C): **As-read** AmB **Corr. Factor** (CF +0.7 / CF -0.5) **Corrected** AmB

Temperature should be above freezing to 6°C

Chain of Custody present:	☑Yes ☐No ☐N/A	
Chain of Custody relinquished:	☑Yes ☐No ☐N/A	
Samples arrived within holding time:	☑Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☐Yes ☑No ☐N/A	
Rush Turn Around Time requested:	☐Yes ☑No ☐N/A	
Sufficient volume:	☑Yes ☐No ☐N/A	
Correct containers used:	☑Yes ☐No ☐N/A	
Pace containers used:	☐Yes ☐No ☐N/A	
Containers intact:	☑Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☑N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☑N/A	
Sample labels match COC: Date / time / ID / analyses	☑Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: Air	☐Yes ☑No ☐N/A	
Containers requiring pH preservation in compliance? (HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO)	☐Yes ☐No ☑N/A	
Cyanide water sample checks: ☑N/A Lead acetate strip turns dark? (Record only) Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No ☐Yes ☐No	
Trip Blank present:	☐Yes ☑No ☐N/A	
Headspace in VOA vials (>6mm):	☐Yes ☐No ☑N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☑N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☑N/A	

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: CDC Date: 11/11/16

Pace Analytical
www.pacelabs.com

AIR: CHAIN-OF-CUSTODY / Analytical Request Document

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

22237

Page: 1 of 1

Section A Required Client Information:

Company: Ramboll Environ
Address: ~~2300~~ 7500 College Blvd Overland Park, KS 66210
Email To: tgleason@ramboll.com
Phone: Fax:
Requested Due Date/TAT: Standard

Section B Required Project Information:

Report To: tgleason@ramboll.com
Copy To: Colleen Clyne PACE Lenexa
Purchase Order No.:
Project Name: Whirlpool Ft Smith
Project Number: 34375000

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager/Sales Rep.
Pace Profile #:

Program: UST | Superfund | Emissions | Clean Air Act | Voluntary Clean Up | Dry Clean | RCRA | X Other ADEQ

Location of Sampling by State: AR

Reporting Units: ug/m³ X | mg/m³ | PPBV X | PPMV | Other

Report Level: II. X III. IV. Other

Section D Required Client Information

AIR SAMPLE ID
Sample IDs MUST BE UNIQUE

Valid Media Codes

MEDIA	CODE
Tedlar Bag	TB
1 Liter Summa Can	1LC
6 Liter Summa Can	6LC
Low Volume Puff	LVP
High Volume Puff	HVP
Other	PM10

ITEM #	'Section D Required Client Information: AIR SAMPLE ID (Sample IDs MUST BE UNIQUE)	MEDIA CODE	PID Reading (Client only)	COLLECTED: COMPOSITE START DATE	COLLECTED: COMPOSITE START TIME	COLLECTED: COMPOSITE END/GRAB DATE	COLLECTED: COMPOSITE END/GRAB TIME	Canister Pressure (Initial Field - psig)	Canister Pressure (Final Field - psig)	Summa Can Number	Flow Control Number	Method: PM10	3C- Fixed Gas (%)	TO-3	TO-3M (Methane)	TO-4 (PCBs)	TO-13 (PAH)	TO-14	TO-15 - SIM	TO15 Short List*	Pace Lab ID
1	VP-09-201611	6LC	-	11/8/16	946	11/8/16	1759	-27	-2	09609	FC0370							X			60249744
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

Comments:
TO-15 Client Specific List

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Wendy Stonestreet Ramboll	11/8/16		Fedex	11/10/16	0832

SAMPLE CONDITIONS

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
10.6	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Wendy Stonestreet
SIGNATURE of SAMPLER: Wendy Stonestreet DATE Signed (MM / DD / YY): 11/8/2016

ORIGINAL

1700 Elm Street SE, Suite 200, Minneapolis, MN 55414 Air Technical Phone: 612.607.6386

Chain of Custody

10370155

Pace Analytical
www.pacelabs.com

Workorder: 60231974 **Workorder Name:** WHIRLPOOL FT SMITH **Owner Received Date:** 11/10/2016 **Results Requested By:** 11/22/2016

Report To	Subcontract To
Colleen Clyne Pace Analytical Kansas 9608 Loiret Blvd. Lenexa, KS 66219 Phone (913)599-5665	Pace Analytical Minnesota 1700 Elm Street Suite 200 Minneapolis, MN 55414 Phone (612)607-1700

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers C	Requested Analysis TO-15 SIM	LAB USE ONLY
1	VP-09-201611	PS	11/8/2016 17:59	60231974001	Air	1	X	
2								
3								
4								
5								

Transfers	Released By	Date/Time	Received	Date/Time
1		11/14/16 1700		111616 0930
2				
3				

Comments: *see attached list

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

111616

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.

Pace Analytical	Document Name: Air Sample Condition Upon Receipt	Document Revised: 26APR2016 Page 1 of 1
	Document No.: F-MN-A-106-rev.11	Issuing Authority: Pace Minnesota Quality Office

Air Sample Condition Upon Receipt

Client Name: Pace KS

Project #: WO#: 10370155

10370155

Courier: ☒ Fed Ex ☐ UPS ☐ Speedee ☐ Client ☐ Commercial ☐ Pace ☐ Other:

Tracking Number: 7044 6656 4574

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

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ Foam ☐ None ☐ Tin Can ☐ Other: **Temp Blank rec:** ☐ Yes ☒ No

Temp. (TO17 and TO13 samples only) (°C): \ **Corrected Temp (°C):** \ **Thermom. Used:** ☐ B88A912167504 ☐ B88A0143310098 ☐ 151401163 ☐ 151401164

Temp should be above freezing to 6°C **Correction Factor:** \ **Date & Initials of Person Examining Contents:** 11/16/16

Type of ice Received ☐ Blue ☐ Wet ☒ None

				Comments:
Chain of Custody Present?	☒ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☒ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☒ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☐ Yes	☒ No	☐ N/A	4.
Samples Arrived within Hold Time?	☒ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☒ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☒ No	☐ N/A	7.
Sufficient Volume?	☒ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☒ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☒ Yes	☐ No	☐ N/A	
Containers Intact?	☒ Yes	☐ No	☐ N/A	10.
Media: (Air Can) Airbag Filter TDT Passive				11.
Sample Labels Match COC?	☒ Yes	☐ No	☐ N/A	12.

Samples Received:

Canisters			Canisters		
Sample Number	Can ID	Flow Controller ID	Sample Number	Can ID	Flow Controller ID
unused	0983	0306			
unused	0830	1033			
001	0969	0390			

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

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: Scott Unze **Date:** 11/16/16

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

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

November 28, 2016

Tamara Gleason
Ramboll Environ
250 Monroe Ave. NW
Ste 400
Grand Rapids, MI 49503

RE: Project: FORT SMITH, AR
Pace Project No.: 60232090

Dear Tamara Gleason:
Enclosed are the analytical results for sample(s) received by the laboratory on November 10, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Colleen Clyne
colleen.clyne@pacelabs.com
Project Manager

Enclosures

cc: Johanna Pavlowsky, Ramboll Environ

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

CERTIFICATIONS

Project: FORT SMITH, AR
Pace Project No.: 60232090

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219
WY STR Certification #: 2456.01
Arkansas Certification #: 15-016-0
Illinois Certification #: 003097
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407
Utah Certification #: KS00021
Kansas Field Laboratory Accreditation: # E-92587
Missouri Certification: 10070

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

SAMPLE SUMMARY

Project: FORT SMITH, AR
Pace Project No.: 60232090

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60232090001	**EB-03-201611**	Water	11/10/16 11:05	11/10/16 18:00
60232090002	**ITMW-5-201611**	Water	11/10/16 10:45	11/10/16 18:00
60232090003	**DUP-06-201611**	Water	11/10/16 10:45	11/10/16 18:00
60232090004	**ITMW-7-201611**	Water	11/10/16 09:10	11/10/16 18:00
60232090005	**MW-178-201611**	Water	11/10/16 10:30	11/10/16 18:00
60232090006	**MW-91-201611**	Water	11/10/16 09:05	11/10/16 18:00
60232090007	**DUP-03-201611**	Water	11/10/16 09:05	11/10/16 18:00
60232090008	**MW-58-201611**	Water	11/10/16 09:25	11/10/16 18:00
60232090009	**MW-38-201611**	Water	11/10/16 12:05	11/10/16 18:00
60232090010	**ITMW-1-201611**	Water	11/10/16 09:00	11/10/16 18:00
60232090011	**ITMW-10-201611**	Water	11/10/16 10:37	11/10/16 18:00
60232090012	**DUP-04-201611**	Water	11/10/16 09:00	11/10/16 18:00
60232090013	**TB-05-201611**	Water	11/10/16 09:00	11/10/16 18:00

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

SAMPLE ANALYTE COUNT

Project: FORT SMITH, AR
Pace Project No.: 60232090

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60232090001	**EB-03-201611**	EPA 5030B/8260	PGH	38	PASI-K
60232090002	**ITMW-5-201611**	EPA 5030B/8260	PGH	38	PASI-K
60232090003	**DUP-06-201611**	EPA 5030B/8260	PGH	38	PASI-K
60232090004	**ITMW-7-201611**	EPA 5030B/8260	PGH	38	PASI-K
60232090005	**MW-178-201611**	EPA 5030B/8260	PGH	38	PASI-K
60232090006	**MW-91-201611**	EPA 5030B/8260	PGH	38	PASI-K
60232090007	**DUP-03-201611**	EPA 5030B/8260	PGH	38	PASI-K
60232090008	**MW-58-201611**	EPA 6010	SMW	1	PASI-K
		EPA 5030B/8260	PGH	38	PASI-K
		SM 2320B	HMM	3	PASI-K
		SM 4500-S-2 D	HMM	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 350.1	LDB	1	PASI-K
		SM 5310C	JMC1	1	PASI-K
60232090009	**MW-38-201611**	EPA 6010	SMW	1	PASI-K
		EPA 5030B/8260	PGH	38	PASI-K
		SM 2320B	HMM	3	PASI-K
		SM 4500-S-2 D	HMM	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 350.1	LDB	1	PASI-K
		SM 5310C	JMC1	1	PASI-K
60232090010	**ITMW-1-201611**	EPA 5030B/8260	PGH	38	PASI-K
60232090011	**ITMW-10-201611**	EPA 5030B/8260	PGH	38	PASI-K
60232090012	**DUP-04-201611**	EPA 5030B/8260	PGH	38	PASI-K
60232090013	**TB-05-201611**	EPA 5030B/8260	PGH	38	PASI-K

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60232090

Method: **EPA 6010**
Description: 6010 MET ICP
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
2 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60232090

Method: **EPA 5030B/8260**
Description: 8260 MSV
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
13 samples were analyzed for EPA 5030B/8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

QC Batch: 455629

B: Analyte was detected in the associated method blank.
- BLANK for HBN 455629 [MSV/7933 (Lab ID: 1865619)
  - Carbon disulfide

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: 454974

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
- LCS (Lab ID: 1863097)
  - 1,1,2-Trichloroethane

QC Batch: 455417

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
- LCS (Lab ID: 1864722)
  - 1,1,1-Trichloroethane
  - Benzene
  - Carbon tetrachloride
  - Trichloroethene
  - trans-1,2-Dichloroethene

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60232090

Method: **EPA 5030B/8260**
Description: 8260 MSV
Client: Ramboll Environ_AR
Date: November 28, 2016

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 454974

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

QC Batch: 455417

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

QC Batch: 455629

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

QC Batch: 455887

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60232090

Method: **SM 2320B**
Description: 2320B Alkalinity
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
2 samples were analyzed for SM 2320B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60232090

Method: **SM 4500-S-2 D**
Description: 4500S2D Sulfide, Total
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
2 samples were analyzed for SM 4500-S-2 D. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60232090

Method: **EPA 300.0**
Description: 300.0 IC Anions 28 Days
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
2 samples were analyzed for EPA 300.0. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 455759

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60232095001,60232259001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1866330)
  - Sulfate

QC Batch: 456029

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60232089001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1867281)
  - Chloride
  - Sulfate
- MSD (Lab ID: 1867282)
  - Chloride
  - Sulfate

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60232090

Method: **EPA 350.1**
Description: 350.1 Ammonia
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
2 samples were analyzed for EPA 350.1. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60232090

Method: **SM 5310C**
Description: 5310C TOC
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
2 samples were analyzed for SM 5310C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

QC Batch: 455835

B: Analyte was detected in the associated method blank.

- BLANK for HBN 455835 [WETA/425 (Lab ID: 1866815)
  - Total Organic Carbon

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60232090

Sample: EB-03-201611 **Lab ID: 60232090001** Collected: 11/10/16 11:05 Received: 11/10/16 18:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/16/16 16:42	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/16/16 16:42	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 16:42	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 16:42	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 16:42	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 16:42	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 16:42	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 16:42	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 16:42	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 16:42	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/16/16 16:42	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 16:42	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 16:42	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 16:42	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 16:42	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 16:42	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/16/16 16:42	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 16:42	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 16:42	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 16:42	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 16:42	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 16:42	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 16:42	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/16/16 16:42	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/16/16 16:42	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 16:42	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 16:42	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 16:42	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/16/16 16:42	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 16:42	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 16:42	79-00-5	L3
Trichloroethene	ND	ug/L	1.0	0.17	1		11/16/16 16:42	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/16/16 16:42	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 16:42	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	88	%	77-130		1		11/16/16 16:42	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	81-127		1		11/16/16 16:42	17060-07-0	
Toluene-d8 (S)	98	%	80-120		1		11/16/16 16:42	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 16:42		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60232090

Sample: ITMW-5-201611 **Lab ID: 60232090002** Collected: 11/10/16 10:45 Received: 11/10/16 18:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/21/16 16:28	67-64-1	
Benzene	**0.10J**	ug/L	1.0	0.060	1		11/21/16 16:28	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/21/16 16:28	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/21/16 16:28	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/21/16 16:28	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/21/16 16:28	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/21/16 16:28	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/21/16 16:28	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/21/16 16:28	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/21/16 16:28	75-00-3	
Chloroform	**0.28J**	ug/L	1.0	0.14	1		11/21/16 16:28	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/21/16 16:28	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/21/16 16:28	124-48-1	
1,1-Dichloroethane	**1.7**	ug/L	1.0	0.050	1		11/21/16 16:28	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/21/16 16:28	107-06-2	
1,1-Dichloroethene	**4.6**	ug/L	1.0	0.20	1		11/21/16 16:28	75-35-4	
cis-1,2-Dichloroethene	**38.9**	ug/L	1.0	0.080	1		11/21/16 16:28	156-59-2	
trans-1,2-Dichloroethene	**0.39J**	ug/L	1.0	0.20	1		11/21/16 16:28	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/21/16 16:28	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/21/16 16:28	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/21/16 16:28	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/21/16 16:28	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/21/16 16:28	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/21/16 16:28	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/21/16 16:28	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/21/16 16:28	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/21/16 16:28	79-34-5	
Tetrachloroethene	**0.99J**	ug/L	1.0	0.10	1		11/21/16 16:28	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/21/16 16:28	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/21/16 16:28	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/21/16 16:28	79-00-5	
Trichloroethene	**507**	ug/L	10.0	1.7	10		11/19/16 15:25	79-01-6	
Vinyl chloride	**2.8**	ug/L	1.0	0.13	1		11/21/16 16:28	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/21/16 16:28	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	95	%	77-130		1		11/21/16 16:28	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	81-127		1		11/21/16 16:28	17060-07-0	
Toluene-d8 (S)	100	%	80-120		1		11/21/16 16:28	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/21/16 16:28		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60232090

Sample: DUP-06-201611 **Lab ID: 60232090003** Collected: 11/10/16 10:45 Received: 11/10/16 18:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/21/16 16:42	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/21/16 16:42	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/21/16 16:42	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/21/16 16:42	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/21/16 16:42	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/21/16 16:42	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/21/16 16:42	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/21/16 16:42	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/21/16 16:42	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/21/16 16:42	75-00-3	
Chloroform	**0.34J**	ug/L	1.0	0.14	1		11/21/16 16:42	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/21/16 16:42	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/21/16 16:42	124-48-1	
1,1-Dichloroethane	**1.9**	ug/L	1.0	0.050	1		11/21/16 16:42	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/21/16 16:42	107-06-2	
1,1-Dichloroethene	**4.5**	ug/L	1.0	0.20	1		11/21/16 16:42	75-35-4	
cis-1,2-Dichloroethene	**33.5**	ug/L	1.0	0.080	1		11/21/16 16:42	156-59-2	
trans-1,2-Dichloroethene	**0.31J**	ug/L	1.0	0.20	1		11/21/16 16:42	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/21/16 16:42	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/21/16 16:42	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/21/16 16:42	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/21/16 16:42	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/21/16 16:42	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/21/16 16:42	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/21/16 16:42	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/21/16 16:42	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/21/16 16:42	79-34-5	
Tetrachloroethene	**0.89J**	ug/L	1.0	0.10	1		11/21/16 16:42	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/21/16 16:42	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/21/16 16:42	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/21/16 16:42	79-00-5	
Trichloroethene	**441**	ug/L	10.0	1.7	10		11/19/16 15:39	79-01-6	
Vinyl chloride	**1.5**	ug/L	1.0	0.13	1		11/21/16 16:42	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/21/16 16:42	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	98	%	77-130		1		11/21/16 16:42	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	81-127		1		11/21/16 16:42	17060-07-0	
Toluene-d8 (S)	111	%	80-120		1		11/21/16 16:42	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/21/16 16:42		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60232090

Sample: ITMW-7-201611 **Lab ID: 60232090004** Collected: 11/10/16 09:10 Received: 11/10/16 18:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/18/16 03:50	67-64-1	
Benzene	**0.099J**	ug/L	1.0	0.060	1		11/18/16 03:50	71-43-2	L1
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/18/16 03:50	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/18/16 03:50	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/18/16 03:50	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/18/16 03:50	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/18/16 03:50	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/18/16 03:50	56-23-5	L3
Chlorobenzene	**1.6**	ug/L	1.0	0.21	1		11/18/16 03:50	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/18/16 03:50	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/18/16 03:50	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/18/16 03:50	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/18/16 03:50	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/18/16 03:50	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/18/16 03:50	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/18/16 03:50	75-35-4	
cis-1,2-Dichloroethene	**10**	ug/L	1.0	0.080	1		11/18/16 03:50	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/18/16 03:50	156-60-5	L3
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/18/16 03:50	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/18/16 03:50	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/18/16 03:50	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/18/16 03:50	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/18/16 03:50	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/18/16 03:50	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/18/16 03:50	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/18/16 03:50	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/18/16 03:50	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/18/16 03:50	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/18/16 03:50	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/18/16 03:50	71-55-6	L3
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/18/16 03:50	79-00-5	
Trichloroethene	**33.2**	ug/L	1.0	0.17	1		11/19/16 14:13	79-01-6	
Vinyl chloride	**0.26J**	ug/L	1.0	0.13	1		11/18/16 03:50	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/18/16 03:50	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	77-130		1		11/18/16 03:50	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	81-127		1		11/18/16 03:50	17060-07-0	
Toluene-d8 (S)	100	%	80-120		1		11/18/16 03:50	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/18/16 03:50		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60232090

Sample: MW-178-201611 **Lab ID: 60232090005** Collected: 11/10/16 10:30 Received: 11/10/16 18:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/18/16 04:04	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/18/16 04:04	71-43-2	L3
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/18/16 04:04	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/18/16 04:04	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/18/16 04:04	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/18/16 04:04	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/18/16 04:04	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/18/16 04:04	56-23-5	L3
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/18/16 04:04	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/18/16 04:04	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/18/16 04:04	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/18/16 04:04	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/18/16 04:04	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/18/16 04:04	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/18/16 04:04	107-06-2	
1,1-Dichloroethene	**0.21J**	ug/L	1.0	0.20	1		11/18/16 04:04	75-35-4	
cis-1,2-Dichloroethene	**0.15J**	ug/L	1.0	0.080	1		11/18/16 04:04	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/18/16 04:04	156-60-5	L3
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/18/16 04:04	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/18/16 04:04	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/18/16 04:04	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/18/16 04:04	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/18/16 04:04	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/18/16 04:04	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/18/16 04:04	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/18/16 04:04	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/18/16 04:04	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/18/16 04:04	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/18/16 04:04	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/18/16 04:04	71-55-6	L3
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/18/16 04:04	79-00-5	
Trichloroethene	**3.2**	ug/L	1.0	0.17	1		11/19/16 14:27	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/18/16 04:04	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/18/16 04:04	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	95	%	77-130		1		11/18/16 04:04	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	81-127		1		11/18/16 04:04	17060-07-0	
Toluene-d8 (S)	93	%	80-120		1		11/18/16 04:04	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/18/16 04:04		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60232090

Sample: MW-91-201611 **Lab ID: 60232090006** Collected: 11/10/16 09:05 Received: 11/10/16 18:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/21/16 16:57	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/21/16 16:57	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/21/16 16:57	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/21/16 16:57	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/21/16 16:57	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/21/16 16:57	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/21/16 16:57	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/21/16 16:57	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/21/16 16:57	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/21/16 16:57	75-00-3	
Chloroform	**0.30J**	ug/L	1.0	0.14	1		11/21/16 16:57	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/21/16 16:57	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/21/16 16:57	124-48-1	
1,1-Dichloroethane	**1.9**	ug/L	1.0	0.050	1		11/21/16 16:57	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/21/16 16:57	107-06-2	
1,1-Dichloroethene	**5.5**	ug/L	1.0	0.20	1		11/21/16 16:57	75-35-4	
cis-1,2-Dichloroethene	**41.6**	ug/L	1.0	0.080	1		11/21/16 16:57	156-59-2	
trans-1,2-Dichloroethene	**0.62J**	ug/L	1.0	0.20	1		11/21/16 16:57	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/21/16 16:57	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/21/16 16:57	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/21/16 16:57	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/21/16 16:57	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/21/16 16:57	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/21/16 16:57	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/21/16 16:57	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/21/16 16:57	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/21/16 16:57	79-34-5	
Tetrachloroethene	**1.6**	ug/L	1.0	0.10	1		11/21/16 16:57	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/21/16 16:57	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/21/16 16:57	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/21/16 16:57	79-00-5	
Trichloroethene	**574**	ug/L	10.0	1.7	10		11/19/16 15:54	79-01-6	
Vinyl chloride	**0.36J**	ug/L	1.0	0.13	1		11/21/16 16:57	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/21/16 16:57	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	93	%	77-130		1		11/21/16 16:57	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	81-127		1		11/21/16 16:57	17060-07-0	
Toluene-d8 (S)	87	%	80-120		1		11/21/16 16:57	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/21/16 16:57		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60232090

Sample: DUP-03-201611 **Lab ID: 60232090007** Collected: 11/10/16 09:05 Received: 11/10/16 18:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/21/16 17:11	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/21/16 17:11	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/21/16 17:11	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/21/16 17:11	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/21/16 17:11	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/21/16 17:11	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/21/16 17:11	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/21/16 17:11	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/21/16 17:11	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/21/16 17:11	75-00-3	
Chloroform	**0.26J**	ug/L	1.0	0.14	1		11/21/16 17:11	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/21/16 17:11	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/21/16 17:11	124-48-1	
1,1-Dichloroethane	**1.5**	ug/L	1.0	0.050	1		11/21/16 17:11	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/21/16 17:11	107-06-2	
1,1-Dichloroethene	**4.7**	ug/L	1.0	0.20	1		11/21/16 17:11	75-35-4	
cis-1,2-Dichloroethene	**40.6**	ug/L	1.0	0.080	1		11/21/16 17:11	156-59-2	
trans-1,2-Dichloroethene	**0.57J**	ug/L	1.0	0.20	1		11/21/16 17:11	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/21/16 17:11	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/21/16 17:11	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/21/16 17:11	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/21/16 17:11	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/21/16 17:11	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/21/16 17:11	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/21/16 17:11	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/21/16 17:11	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/21/16 17:11	79-34-5	
Tetrachloroethene	**2.1**	ug/L	1.0	0.10	1		11/21/16 17:11	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/21/16 17:11	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/21/16 17:11	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/21/16 17:11	79-00-5	
Trichloroethene	**599**	ug/L	10.0	1.7	10		11/19/16 16:08	79-01-6	
Vinyl chloride	**0.38J**	ug/L	1.0	0.13	1		11/21/16 17:11	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/21/16 17:11	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	94	%	77-130		1		11/21/16 17:11	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	81-127		1		11/21/16 17:11	17060-07-0	
Toluene-d8 (S)	101	%	80-120		1		11/21/16 17:11	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/21/16 17:11		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60232090

Sample: MW-58-201611 **Lab ID: 60232090008** Collected: 11/10/16 09:25 Received: 11/10/16 18:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	**8030**	ug/L	50.0	8.8	1	11/15/16 10:00	11/16/16 15:07	7439-89-6	
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/21/16 17:26	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/21/16 17:26	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/21/16 17:26	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/21/16 17:26	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/21/16 17:26	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/21/16 17:26	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/21/16 17:26	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/21/16 17:26	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/21/16 17:26	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/21/16 17:26	75-00-3	
Chloroform	**0.16J**	ug/L	1.0	0.14	1		11/21/16 17:26	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/21/16 17:26	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/21/16 17:26	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/21/16 17:26	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/21/16 17:26	107-06-2	
1,1-Dichloroethene	**2.3**	ug/L	1.0	0.20	1		11/21/16 17:26	75-35-4	
cis-1,2-Dichloroethene	**28.5**	ug/L	1.0	0.080	1		11/21/16 17:26	156-59-2	
trans-1,2-Dichloroethene	**0.23J**	ug/L	1.0	0.20	1		11/21/16 17:26	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/21/16 17:26	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/21/16 17:26	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/21/16 17:26	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/21/16 17:26	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/21/16 17:26	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/21/16 17:26	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/21/16 17:26	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/21/16 17:26	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/21/16 17:26	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/21/16 17:26	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/21/16 17:26	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/21/16 17:26	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/21/16 17:26	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/21/16 17:26	79-01-6	
Vinyl chloride	**0.85J**	ug/L	1.0	0.13	1		11/21/16 17:26	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/21/16 17:26	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	96	%	77-130		1		11/21/16 17:26	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	81-127		1		11/21/16 17:26	17060-07-0	
Toluene-d8 (S)	99	%	80-120		1		11/21/16 17:26	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/21/16 17:26		
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity,Bicarbonate (CaCO3)	**29.2**	mg/L	20.0	4.9	1		11/17/16 11:32		
Alkalinity, Carbonate (CaCO3)	ND	mg/L	20.0	4.9	1		11/17/16 11:32		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60232090

Sample: MW-58-201611 **Lab ID: 60232090008** Collected: 11/10/16 09:25 Received: 11/10/16 18:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity, Total as CaCO3	**29.2**	mg/L	20.0	4.9	1		11/17/16 11:32		
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D								
Sulfide, Total	ND	mg/L	0.050	0.019	1		11/16/16 13:48	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**249**	mg/L	20.0	10.0	20		11/22/16 09:49	16887-00-6	
Sulfate	**1.4**	mg/L	1.0	0.15	1		11/20/16 20:00	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.10	0.013	1		11/21/16 10:42	7664-41-7	
5310C TOC	Analytical Method: SM 5310C								
Total Organic Carbon	**0.33J**	mg/L	1.0	0.054	1		11/21/16 10:27	7440-44-0	B

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60232090

Sample: MW-38-201611 **Lab ID: 60232090009** Collected: 11/10/16 12:05 Received: 11/10/16 18:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	**6040**	ug/L	50.0	8.8	1	11/15/16 10:00	11/16/16 15:11	7439-89-6	
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/21/16 16:13	67-64-1	
Benzene	**0.20J**	ug/L	1.0	0.060	1		11/21/16 16:13	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/21/16 16:13	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/21/16 16:13	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/21/16 16:13	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/21/16 16:13	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/21/16 16:13	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/21/16 16:13	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/21/16 16:13	108-90-7	
Chloroethane	**0.38J**	ug/L	1.0	0.15	1		11/21/16 16:13	75-00-3	
Chloroform	**0.30J**	ug/L	1.0	0.14	1		11/21/16 16:13	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/21/16 16:13	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/21/16 16:13	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/21/16 16:13	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/21/16 16:13	107-06-2	
1,1-Dichloroethene	**19.9**	ug/L	1.0	0.20	1		11/21/16 16:13	75-35-4	
cis-1,2-Dichloroethene	**1070**	ug/L	50.0	4.0	50		11/19/16 16:37	156-59-2	
trans-1,2-Dichloroethene	**17.8**	ug/L	1.0	0.20	1		11/21/16 16:13	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/21/16 16:13	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/21/16 16:13	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/21/16 16:13	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/21/16 16:13	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/21/16 16:13	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/21/16 16:13	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/21/16 16:13	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/21/16 16:13	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/21/16 16:13	79-34-5	
Tetrachloroethene	**0.81J**	ug/L	1.0	0.10	1		11/21/16 16:13	127-18-4	
Toluene	**0.43J**	ug/L	1.0	0.17	1		11/21/16 16:13	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/21/16 16:13	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/21/16 16:13	79-00-5	
Trichloroethene	**2860**	ug/L	50.0	8.5	50		11/19/16 16:37	79-01-6	
Vinyl chloride	**597**	ug/L	50.0	6.5	50		11/19/16 16:37	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/21/16 16:13	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	77-130		1		11/21/16 16:13	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	81-127		1		11/21/16 16:13	17060-07-0	
Toluene-d8 (S)	101	%	80-120		1		11/21/16 16:13	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/21/16 16:13		
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity,Bicarbonate (CaCO3)	**186**	mg/L	20.0	4.9	1		11/17/16 11:36		
Alkalinity, Carbonate (CaCO3)	ND	mg/L	20.0	4.9	1		11/17/16 11:36		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60232090

Sample: MW-38-201611 **Lab ID: 60232090009** Collected: 11/10/16 12:05 Received: 11/10/16 18:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity, Total as CaCO3	**186**	mg/L	20.0	4.9	1		11/17/16 11:36		
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D								
Sulfide, Total	ND	mg/L	0.050	0.019	1		11/16/16 13:49	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**23.8**	mg/L	2.0	1.0	2		11/22/16 10:03	16887-00-6	
Sulfate	**28.2**	mg/L	2.0	0.31	2		11/22/16 10:03	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**0.24**	mg/L	0.10	0.013	1		11/21/16 10:44	7664-41-7	
5310C TOC	Analytical Method: SM 5310C								
Total Organic Carbon	**2.9**	mg/L	1.0	0.054	1		11/21/16 10:53	7440-44-0	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60232090

Sample: ITMW-1-201611 **Lab ID: 60232090010** Collected: 11/10/16 09:00 Received: 11/10/16 18:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/18/16 04:19	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/18/16 04:19	71-43-2	L3
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/18/16 04:19	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/18/16 04:19	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/18/16 04:19	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/18/16 04:19	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/18/16 04:19	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/18/16 04:19	56-23-5	L3
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/18/16 04:19	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/18/16 04:19	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/18/16 04:19	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/18/16 04:19	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/18/16 04:19	124-48-1	
1,1-Dichloroethane	**0.41J**	ug/L	1.0	0.050	1		11/18/16 04:19	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/18/16 04:19	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/18/16 04:19	75-35-4	
cis-1,2-Dichloroethene	**3.1**	ug/L	1.0	0.080	1		11/18/16 04:19	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/18/16 04:19	156-60-5	L3
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/18/16 04:19	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/18/16 04:19	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/18/16 04:19	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/18/16 04:19	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/18/16 04:19	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/18/16 04:19	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/18/16 04:19	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/18/16 04:19	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/18/16 04:19	79-34-5	
Tetrachloroethene	**0.16J**	ug/L	1.0	0.10	1		11/18/16 04:19	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/18/16 04:19	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/18/16 04:19	71-55-6	L3
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/18/16 04:19	79-00-5	
Trichloroethene	**7.6**	ug/L	1.0	0.17	1		11/19/16 14:42	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/18/16 04:19	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/18/16 04:19	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	77-130		1		11/18/16 04:19	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	81-127		1		11/18/16 04:19	17060-07-0	
Toluene-d8 (S)	85	%	80-120		1		11/18/16 04:19	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/18/16 04:19		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60232090

Sample: ITMW-10-201611 **Lab ID: 60232090011** Collected: 11/10/16 10:37 Received: 11/10/16 18:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/19/16 14:56	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/19/16 14:56	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/19/16 14:56	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/19/16 14:56	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/19/16 14:56	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/19/16 14:56	78-93-3	
Carbon disulfide	**0.13J**	ug/L	5.0	0.12	1		11/19/16 14:56	75-15-0	B
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/19/16 14:56	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/19/16 14:56	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/19/16 14:56	75-00-3	
Chloroform	**0.15J**	ug/L	1.0	0.14	1		11/19/16 14:56	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/19/16 14:56	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/19/16 14:56	124-48-1	
1,1-Dichloroethane	**1.1**	ug/L	1.0	0.050	1		11/19/16 14:56	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/19/16 14:56	107-06-2	
1,1-Dichloroethene	**1.2**	ug/L	1.0	0.20	1		11/19/16 14:56	75-35-4	
cis-1,2-Dichloroethene	**12.5**	ug/L	1.0	0.080	1		11/19/16 14:56	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/19/16 14:56	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/19/16 14:56	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/19/16 14:56	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/19/16 14:56	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/19/16 14:56	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/19/16 14:56	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/19/16 14:56	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/19/16 14:56	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/19/16 14:56	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/19/16 14:56	79-34-5	
Tetrachloroethene	**0.29J**	ug/L	1.0	0.10	1		11/19/16 14:56	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/19/16 14:56	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/19/16 14:56	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/19/16 14:56	79-00-5	
Trichloroethene	**113**	ug/L	1.0	0.17	1		11/19/16 14:56	79-01-6	
Vinyl chloride	**0.52J**	ug/L	1.0	0.13	1		11/19/16 14:56	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/19/16 14:56	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	77-130		1		11/19/16 14:56	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	81-127		1		11/19/16 14:56	17060-07-0	
Toluene-d8 (S)	101	%	80-120		1		11/19/16 14:56	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/19/16 14:56		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60232090

Sample: DUP-04-201611 **Lab ID: 60232090012** Collected: 11/10/16 09:00 Received: 11/10/16 18:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/18/16 05:17	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/18/16 05:17	71-43-2	L3
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/18/16 05:17	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/18/16 05:17	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/18/16 05:17	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/18/16 05:17	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/18/16 05:17	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/18/16 05:17	56-23-5	L3
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/18/16 05:17	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/18/16 05:17	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/18/16 05:17	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/18/16 05:17	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/18/16 05:17	124-48-1	
1,1-Dichloroethane	**0.39J**	ug/L	1.0	0.050	1		11/18/16 05:17	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/18/16 05:17	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/18/16 05:17	75-35-4	
cis-1,2-Dichloroethene	**3.4**	ug/L	1.0	0.080	1		11/18/16 05:17	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/18/16 05:17	156-60-5	L3
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/18/16 05:17	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/18/16 05:17	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/18/16 05:17	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/18/16 05:17	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/18/16 05:17	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/18/16 05:17	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/18/16 05:17	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/18/16 05:17	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/18/16 05:17	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/18/16 05:17	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/18/16 05:17	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/18/16 05:17	71-55-6	L3
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/18/16 05:17	79-00-5	
Trichloroethene	**7.0**	ug/L	1.0	0.17	1		11/19/16 15:10	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/18/16 05:17	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/18/16 05:17	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	99	%	77-130		1		11/18/16 05:17	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	81-127		1		11/18/16 05:17	17060-07-0	
Toluene-d8 (S)	95	%	80-120		1		11/18/16 05:17	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/18/16 05:17		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60232090

Sample: TB-05-201611 **Lab ID: 60232090013** Collected: 11/10/16 09:00 Received: 11/10/16 18:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/18/16 03:35	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/18/16 03:35	71-43-2	L3
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/18/16 03:35	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/18/16 03:35	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/18/16 03:35	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/18/16 03:35	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/18/16 03:35	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/18/16 03:35	56-23-5	L3
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/18/16 03:35	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/18/16 03:35	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/18/16 03:35	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/18/16 03:35	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/18/16 03:35	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/18/16 03:35	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/18/16 03:35	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/18/16 03:35	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/18/16 03:35	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/18/16 03:35	156-60-5	L3
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/18/16 03:35	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/18/16 03:35	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/18/16 03:35	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/18/16 03:35	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/18/16 03:35	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/18/16 03:35	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/18/16 03:35	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/18/16 03:35	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/18/16 03:35	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/18/16 03:35	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/18/16 03:35	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/18/16 03:35	71-55-6	L3
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/18/16 03:35	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/18/16 03:35	79-01-6	L3
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/18/16 03:35	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/18/16 03:35	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	93	%	77-130		1		11/18/16 03:35	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	81-127		1		11/18/16 03:35	17060-07-0	
Toluene-d8 (S)	93	%	80-120		1		11/18/16 03:35	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/18/16 03:35		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60232090

QC Batch: 454946 — Analysis Method: EPA 6010
QC Batch Method: EPA 3010 — Analysis Description: 6010 MET
Associated Lab Samples: 60232090008, 60232090009

METHOD BLANK: 1863017 — Matrix: Water
Associated Lab Samples: 60232090008, 60232090009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron	ug/L	ND	50.0	8.8	11/16/16 11:03	

LABORATORY CONTROL SAMPLE: 1863018

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron	ug/L	10000	10000	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1863019 1863020

Parameter	Units	60231811001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron	ug/L		10000	10000	30300	29900	95	92	75-125	1	20	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60232090

QC Batch: 454974
QC Batch Method: EPA 5030B/8260
Analysis Method: EPA 5030B/8260
Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60232090001

METHOD BLANK: 1863096
Matrix: Water
Associated Lab Samples: 60232090001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	0.11	11/16/16 15:29	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.15	11/16/16 15:29	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.20	11/16/16 15:29	
1,1-Dichloroethane	ug/L	ND	1.0	0.050	11/16/16 15:29	
1,1-Dichloroethene	ug/L	ND	1.0	0.20	11/16/16 15:29	
1,2-Dichloroethane	ug/L	ND	1.0	0.12	11/16/16 15:29	
1,2-Dichloropropane	ug/L	ND	1.0	0.16	11/16/16 15:29	
2-Butanone (MEK)	ug/L	ND	10.0	0.59	11/16/16 15:29	
2-Hexanone	ug/L	ND	10.0	1.2	11/16/16 15:29	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	0.42	11/16/16 15:29	
Acetone	ug/L	ND	10.0	1.9	11/16/16 15:29	
Benzene	ug/L	ND	1.0	0.060	11/16/16 15:29	
Bromodichloromethane	ug/L	ND	1.0	0.19	11/16/16 15:29	
Bromoform	ug/L	ND	1.0	0.070	11/16/16 15:29	
Bromomethane	ug/L	ND	5.0	0.16	11/16/16 15:29	
Carbon disulfide	ug/L	ND	5.0	0.12	11/16/16 15:29	
Carbon tetrachloride	ug/L	ND	1.0	0.18	11/16/16 15:29	
Chlorobenzene	ug/L	ND	1.0	0.21	11/16/16 15:29	
Chloroethane	ug/L	ND	1.0	0.15	11/16/16 15:29	
Chloroform	ug/L	ND	1.0	0.14	11/16/16 15:29	
Chloromethane	ug/L	ND	1.0	0.080	11/16/16 15:29	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.080	11/16/16 15:29	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.14	11/16/16 15:29	
Dibromochloromethane	ug/L	ND	1.0	0.21	11/16/16 15:29	
Ethylbenzene	ug/L	ND	1.0	0.18	11/16/16 15:29	
Methylene chloride	ug/L	ND	1.0	0.15	11/16/16 15:29	
Styrene	ug/L	ND	1.0	0.12	11/16/16 15:29	
Tetrachloroethene	ug/L	ND	1.0	0.10	11/16/16 15:29	
Toluene	ug/L	ND	1.0	0.17	11/16/16 15:29	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.20	11/16/16 15:29	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.12	11/16/16 15:29	
Trichloroethene	ug/L	ND	1.0	0.17	11/16/16 15:29	
Vinyl chloride	ug/L	ND	1.0	0.13	11/16/16 15:29	
Xylene (Total)	ug/L	ND	3.0	0.42	11/16/16 15:29	
1,2-Dichloroethane-d4 (S)	%	104	81-127		11/16/16 15:29	
4-Bromofluorobenzene (S)	%	100	77-130		11/16/16 15:29	
Toluene-d8 (S)	%	101	80-120		11/16/16 15:29	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60232090

LABORATORY CONTROL SAMPLE: 1863097

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	22.3	112	81-116	
1,1,2,2-Tetrachloroethane	ug/L	20	20.0	100	72-117	
1,1,2-Trichloroethane	ug/L	20	21.8	109	79-108	L0
1,1-Dichloroethane	ug/L	20	21.4	107	83-117	
1,1-Dichloroethene	ug/L	20	20.4	102	74-114	
1,2-Dichloroethane	ug/L	20	22.2	111	72-116	
1,2-Dichloropropane	ug/L	20	21.1	105	80-120	
2-Butanone (MEK)	ug/L	100	99.0	99	67-129	
2-Hexanone	ug/L	100	106	106	70-128	
4-Methyl-2-pentanone (MIBK)	ug/L	100	102	102	80-120	
Acetone	ug/L	100	95.4	95	56-142	
Benzene	ug/L	20	21.7	108	79-116	
Bromodichloromethane	ug/L	20	22.1	111	80-120	
Bromoform	ug/L	20	22.5	112	73-114	
Bromomethane	ug/L	20	17.3	86	49-153	
Carbon disulfide	ug/L	20	19.2	96	82-121	
Carbon tetrachloride	ug/L	20	20.7	104	80-116	
Chlorobenzene	ug/L	20	21.8	109	80-120	
Chloroethane	ug/L	20	19.9	99	67-124	
Chloroform	ug/L	20	21.8	109	79-120	
Chloromethane	ug/L	20	14.2	71	10-192	
cis-1,2-Dichloroethene	ug/L	20	19.8	99	80-120	
cis-1,3-Dichloropropene	ug/L	20	19.9	100	80-120	
Dibromochloromethane	ug/L	20	22.7	114	80-120	
Ethylbenzene	ug/L	20	22.3	111	80-120	
Methylene chloride	ug/L	20	18.6	93	80-120	
Styrene	ug/L	20	22.4	112	80-120	
Tetrachloroethene	ug/L	20	21.8	109	80-120	
Toluene	ug/L	20	21.0	105	80-120	
trans-1,2-Dichloroethene	ug/L	20	19.8	99	78-108	
trans-1,3-Dichloropropene	ug/L	20	20.9	105	85-120	
Trichloroethene	ug/L	20	22.2	111	76-114	
Vinyl chloride	ug/L	20	17.8	89	69-129	
Xylene (Total)	ug/L	60	66.5	111	80-120	
1,2-Dichloroethane-d4 (S)	%			96	81-127	
4-Bromofluorobenzene (S)	%			95	77-130	
Toluene-d8 (S)	%			98	80-120	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60232090

QC Batch: 455417 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60232090004, 60232090005, 60232090010, 60232090012, 60232090013

METHOD BLANK: 1864721 Matrix: Water
Associated Lab Samples: 60232090004, 60232090005, 60232090010, 60232090012, 60232090013

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	0.11	11/18/16 02:52	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.15	11/18/16 02:52	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.20	11/18/16 02:52	
1,1-Dichloroethane	ug/L	ND	1.0	0.050	11/18/16 02:52	
1,1-Dichloroethene	ug/L	ND	1.0	0.20	11/18/16 02:52	
1,2-Dichloroethane	ug/L	ND	1.0	0.12	11/18/16 02:52	
1,2-Dichloropropane	ug/L	ND	1.0	0.16	11/18/16 02:52	
2-Butanone (MEK)	ug/L	ND	10.0	0.59	11/18/16 02:52	
2-Hexanone	ug/L	ND	10.0	1.2	11/18/16 02:52	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	0.42	11/18/16 02:52	
Acetone	ug/L	ND	10.0	1.9	11/18/16 02:52	
Benzene	ug/L	ND	1.0	0.060	11/18/16 02:52	
Bromodichloromethane	ug/L	ND	1.0	0.19	11/18/16 02:52	
Bromoform	ug/L	ND	1.0	0.070	11/18/16 02:52	
Bromomethane	ug/L	ND	5.0	0.16	11/18/16 02:52	
Carbon disulfide	ug/L	ND	5.0	0.12	11/18/16 02:52	
Carbon tetrachloride	ug/L	ND	1.0	0.18	11/18/16 02:52	
Chlorobenzene	ug/L	ND	1.0	0.21	11/18/16 02:52	
Chloroethane	ug/L	ND	1.0	0.15	11/18/16 02:52	
Chloroform	ug/L	ND	1.0	0.14	11/18/16 02:52	
Chloromethane	ug/L	ND	1.0	0.080	11/18/16 02:52	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.080	11/18/16 02:52	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.14	11/18/16 02:52	
Dibromochloromethane	ug/L	ND	1.0	0.21	11/18/16 02:52	
Ethylbenzene	ug/L	ND	1.0	0.18	11/18/16 02:52	
Methylene chloride	ug/L	ND	1.0	0.15	11/18/16 02:52	
Styrene	ug/L	ND	1.0	0.12	11/18/16 02:52	
Tetrachloroethene	ug/L	ND	1.0	0.10	11/18/16 02:52	
Toluene	ug/L	ND	1.0	0.17	11/18/16 02:52	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.20	11/18/16 02:52	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.12	11/18/16 02:52	
Trichloroethene	ug/L	ND	1.0	0.17	11/18/16 02:52	
Vinyl chloride	ug/L	ND	1.0	0.13	11/18/16 02:52	
Xylene (Total)	ug/L	ND	3.0	0.42	11/18/16 02:52	
1,2-Dichloroethane-d4 (S)	%	102	81-127		11/18/16 02:52	
4-Bromofluorobenzene (S)	%	97	77-130		11/18/16 02:52	
Toluene-d8 (S)	%	99	80-120		11/18/16 02:52	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60232090

LABORATORY CONTROL SAMPLE: 1864722

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	24.8	124	81-116	L0
1,1,2,2-Tetrachloroethane	ug/L	20	19.2	96	72-117	
1,1,2-Trichloroethane	ug/L	20	21.4	107	79-108	
1,1-Dichloroethane	ug/L	20	22.5	112	83-117	
1,1-Dichloroethene	ug/L	20	22.2	111	74-114	
1,2-Dichloroethane	ug/L	20	21.8	109	72-116	
1,2-Dichloropropane	ug/L	20	22.5	112	80-120	
2-Butanone (MEK)	ug/L	100	101	101	67-129	
2-Hexanone	ug/L	100	97.1	97	70-128	
4-Methyl-2-pentanone (MIBK)	ug/L	100	101	101	80-120	
Acetone	ug/L	100	95.7	96	56-142	
Benzene	ug/L	20	24.3	122	79-116	L0
Bromodichloromethane	ug/L	20	23.2	116	80-120	
Bromoform	ug/L	20	21.5	107	73-114	
Bromomethane	ug/L	20	15.5	78	49-153	
Carbon disulfide	ug/L	20	21.8	109	82-121	
Carbon tetrachloride	ug/L	20	23.9	120	80-116	L0
Chlorobenzene	ug/L	20	21.2	106	80-120	
Chloroethane	ug/L	20	22.9	114	67-124	
Chloroform	ug/L	20	23.3	116	79-120	
Chloromethane	ug/L	20	18.8	94	10-192	
cis-1,2-Dichloroethene	ug/L	20	22.2	111	80-120	
cis-1,3-Dichloropropene	ug/L	20	20.4	102	80-120	
Dibromochloromethane	ug/L	20	22.1	110	80-120	
Ethylbenzene	ug/L	20	22.3	112	80-120	
Methylene chloride	ug/L	20	20.2	101	80-120	
Styrene	ug/L	20	22.4	112	80-120	
Tetrachloroethene	ug/L	20	23.4	117	80-120	
Toluene	ug/L	20	21.0	105	80-120	
trans-1,2-Dichloroethene	ug/L	20	21.8	109	78-108	L0
trans-1,3-Dichloropropene	ug/L	20	20.0	100	85-120	
Trichloroethene	ug/L	20	24.3	122	76-114	L0
Vinyl chloride	ug/L	20	22.6	113	69-129	
Xylene (Total)	ug/L	60	65.3	109	80-120	
1,2-Dichloroethane-d4 (S)	%			101	81-127	
4-Bromofluorobenzene (S)	%			101	77-130	
Toluene-d8 (S)	%			93	80-120	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60232090

QC Batch: 455629 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60232090002, 60232090003, 60232090004, 60232090005, 60232090006, 60232090007, 60232090008, 60232090009, 60232090010, 60232090011, 60232090012

METHOD BLANK: 1865619 Matrix: Water
Associated Lab Samples: 60232090002, 60232090003, 60232090004, 60232090005, 60232090006, 60232090007, 60232090008, 60232090009, 60232090010, 60232090011, 60232090012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	0.11	11/19/16 11:49	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.15	11/19/16 11:49	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.20	11/19/16 11:49	
1,1-Dichloroethane	ug/L	ND	1.0	0.050	11/19/16 11:49	
1,1-Dichloroethene	ug/L	ND	1.0	0.20	11/19/16 11:49	
1,2-Dichloroethane	ug/L	ND	1.0	0.12	11/19/16 11:49	
1,2-Dichloropropane	ug/L	ND	1.0	0.16	11/19/16 11:49	
2-Butanone (MEK)	ug/L	ND	10.0	0.59	11/19/16 11:49	
2-Hexanone	ug/L	ND	10.0	1.2	11/19/16 11:49	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	0.42	11/19/16 11:49	
Acetone	ug/L	ND	10.0	1.9	11/19/16 11:49	
Benzene	ug/L	ND	1.0	0.060	11/19/16 11:49	
Bromodichloromethane	ug/L	ND	1.0	0.19	11/19/16 11:49	
Bromoform	ug/L	ND	1.0	0.070	11/19/16 11:49	
Bromomethane	ug/L	ND	5.0	0.16	11/19/16 11:49	
Carbon disulfide	ug/L	0.16J	5.0	0.12	11/19/16 11:49	
Carbon tetrachloride	ug/L	ND	1.0	0.18	11/19/16 11:49	
Chlorobenzene	ug/L	ND	1.0	0.21	11/19/16 11:49	
Chloroethane	ug/L	ND	1.0	0.15	11/19/16 11:49	
Chloroform	ug/L	ND	1.0	0.14	11/19/16 11:49	
Chloromethane	ug/L	ND	1.0	0.080	11/19/16 11:49	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.080	11/19/16 11:49	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.14	11/19/16 11:49	
Dibromochloromethane	ug/L	ND	1.0	0.21	11/19/16 11:49	
Ethylbenzene	ug/L	ND	1.0	0.18	11/19/16 11:49	
Methylene chloride	ug/L	ND	1.0	0.15	11/19/16 11:49	
Styrene	ug/L	ND	1.0	0.12	11/19/16 11:49	
Tetrachloroethene	ug/L	ND	1.0	0.10	11/19/16 11:49	
Toluene	ug/L	ND	1.0	0.17	11/19/16 11:49	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.20	11/19/16 11:49	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.12	11/19/16 11:49	
Trichloroethene	ug/L	ND	1.0	0.17	11/19/16 11:49	
Vinyl chloride	ug/L	ND	1.0	0.13	11/19/16 11:49	
Xylene (Total)	ug/L	ND	3.0	0.42	11/19/16 11:49	
1,2-Dichloroethane-d4 (S)	%	94	81-127		11/19/16 11:49	
4-Bromofluorobenzene (S)	%	95	77-130		11/19/16 11:49	
Toluene-d8 (S)	%	112	80-120		11/19/16 11:49	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60232090

LABORATORY CONTROL SAMPLE: 1865620

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	17.7	89	81-116	
1,1,2,2-Tetrachloroethane	ug/L	20	18.4	92	72-117	
1,1,2-Trichloroethane	ug/L	20	19.4	97	79-108	
1,1-Dichloroethane	ug/L	20	18.0	90	83-117	
1,1-Dichloroethene	ug/L	20	19.5	98	74-114	
1,2-Dichloroethane	ug/L	20	16.9	84	72-116	
1,2-Dichloropropane	ug/L	20	19.0	95	80-120	
2-Butanone (MEK)	ug/L	100	71.0	71	67-129	
2-Hexanone	ug/L	100	90.8	91	70-128	
4-Methyl-2-pentanone (MIBK)	ug/L	100	82.8	83	80-120	
Acetone	ug/L	100	73.8	74	56-142	
Benzene	ug/L	20	17.3	86	79-116	
Bromodichloromethane	ug/L	20	19.6	98	80-120	
Bromoform	ug/L	20	19.6	98	73-114	
Bromomethane	ug/L	20	17.1	85	49-153	
Carbon disulfide	ug/L	20	17.8	89	82-121	
Carbon tetrachloride	ug/L	20	17.5	88	80-116	
Chlorobenzene	ug/L	20	19.5	98	80-120	
Chloroethane	ug/L	20	19.3	97	67-124	
Chloroform	ug/L	20	18.0	90	79-120	
Chloromethane	ug/L	20	16.8	84	10-192	
cis-1,2-Dichloroethene	ug/L	20	16.0	80	80-120	
cis-1,3-Dichloropropene	ug/L	20	17.0	85	80-120	
Dibromochloromethane	ug/L	20	20.1	100	80-120	
Ethylbenzene	ug/L	20	19.8	99	80-120	
Methylene chloride	ug/L	20	19.0	95	80-120	
Styrene	ug/L	20	19.7	99	80-120	
Tetrachloroethene	ug/L	20	20.1	100	80-120	
Toluene	ug/L	20	19.1	95	80-120	
trans-1,2-Dichloroethene	ug/L	20	17.7	88	78-108	
trans-1,3-Dichloropropene	ug/L	20	19.9	99	85-120	
Trichloroethene	ug/L	20	18.9	94	76-114	
Vinyl chloride	ug/L	20	18.4	92	69-129	
Xylene (Total)	ug/L	60	58.0	97	80-120	
1,2-Dichloroethane-d4 (S)	%			86	81-127	
4-Bromofluorobenzene (S)	%			94	77-130	
Toluene-d8 (S)	%			103	80-120	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60232090

QC Batch: 455887 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60232090002, 60232090003, 60232090006, 60232090007, 60232090008, 60232090009

METHOD BLANK: 1866927 Matrix: Water
Associated Lab Samples: 60232090002, 60232090003, 60232090006, 60232090007, 60232090008, 60232090009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	0.11	11/21/16 15:01	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.15	11/21/16 15:01	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.20	11/21/16 15:01	
1,1-Dichloroethane	ug/L	ND	1.0	0.050	11/21/16 15:01	
1,1-Dichloroethene	ug/L	ND	1.0	0.20	11/21/16 15:01	
1,2-Dichloroethane	ug/L	ND	1.0	0.12	11/21/16 15:01	
1,2-Dichloropropane	ug/L	ND	1.0	0.16	11/21/16 15:01	
2-Butanone (MEK)	ug/L	ND	10.0	0.59	11/21/16 15:01	
2-Hexanone	ug/L	ND	10.0	1.2	11/21/16 15:01	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	0.42	11/21/16 15:01	
Acetone	ug/L	ND	10.0	1.9	11/21/16 15:01	
Benzene	ug/L	ND	1.0	0.060	11/21/16 15:01	
Bromodichloromethane	ug/L	ND	1.0	0.19	11/21/16 15:01	
Bromoform	ug/L	ND	1.0	0.070	11/21/16 15:01	
Bromomethane	ug/L	ND	5.0	0.16	11/21/16 15:01	
Carbon disulfide	ug/L	ND	5.0	0.12	11/21/16 15:01	
Carbon tetrachloride	ug/L	ND	1.0	0.18	11/21/16 15:01	
Chlorobenzene	ug/L	ND	1.0	0.21	11/21/16 15:01	
Chloroethane	ug/L	ND	1.0	0.15	11/21/16 15:01	
Chloroform	ug/L	ND	1.0	0.14	11/21/16 15:01	
Chloromethane	ug/L	ND	1.0	0.080	11/21/16 15:01	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.080	11/21/16 15:01	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.14	11/21/16 15:01	
Dibromochloromethane	ug/L	ND	1.0	0.21	11/21/16 15:01	
Ethylbenzene	ug/L	ND	1.0	0.18	11/21/16 15:01	
Methylene chloride	ug/L	ND	1.0	0.15	11/21/16 15:01	
Styrene	ug/L	ND	1.0	0.12	11/21/16 15:01	
Tetrachloroethene	ug/L	ND	1.0	0.10	11/21/16 15:01	
Toluene	ug/L	ND	1.0	0.17	11/21/16 15:01	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.20	11/21/16 15:01	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.12	11/21/16 15:01	
Trichloroethene	ug/L	ND	1.0	0.17	11/21/16 15:01	
Vinyl chloride	ug/L	ND	1.0	0.13	11/21/16 15:01	
Xylene (Total)	ug/L	ND	3.0	0.42	11/21/16 15:01	
1,2-Dichloroethane-d4 (S)	%	103	81-127		11/21/16 15:01	
4-Bromofluorobenzene (S)	%	86	77-130		11/21/16 15:01	
Toluene-d8 (S)	%	99	80-120		11/21/16 15:01	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60232090

LABORATORY CONTROL SAMPLE: 1866928

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	20.0	100	81-116	
1,1,2,2-Tetrachloroethane	ug/L	20	19.0	95	72-117	
1,1,2-Trichloroethane	ug/L	20	20.2	101	79-108	
1,1-Dichloroethane	ug/L	20	19.7	99	83-117	
1,1-Dichloroethene	ug/L	20	19.0	95	74-114	
1,2-Dichloroethane	ug/L	20	19.7	99	72-116	
1,2-Dichloropropane	ug/L	20	20.2	101	80-120	
2-Butanone (MEK)	ug/L	100	95.2	95	67-129	
2-Hexanone	ug/L	100	105	105	70-128	
4-Methyl-2-pentanone (MIBK)	ug/L	100	110	110	80-120	
Acetone	ug/L	100	96.5	97	56-142	
Benzene	ug/L	20	19.5	98	79-116	
Bromodichloromethane	ug/L	20	21.3	106	80-120	
Bromoform	ug/L	20	21.5	107	73-114	
Bromomethane	ug/L	20	14.8	74	49-153	
Carbon disulfide	ug/L	20	18.1	90	82-121	
Carbon tetrachloride	ug/L	20	19.4	97	80-116	
Chlorobenzene	ug/L	20	20.0	100	80-120	
Chloroethane	ug/L	20	22.3	112	67-124	
Chloroform	ug/L	20	18.7	93	79-120	
Chloromethane	ug/L	20	35.0	175	10-192	
cis-1,2-Dichloroethene	ug/L	20	17.9	90	80-120	
cis-1,3-Dichloropropene	ug/L	20	19.8	99	80-120	
Dibromochloromethane	ug/L	20	20.4	102	80-120	
Ethylbenzene	ug/L	20	20.6	103	80-120	
Methylene chloride	ug/L	20	22.4	112	80-120	
Styrene	ug/L	20	20.8	104	80-120	
Tetrachloroethene	ug/L	20	19.6	98	80-120	
Toluene	ug/L	20	19.8	99	80-120	
trans-1,2-Dichloroethene	ug/L	20	19.9	100	78-108	
trans-1,3-Dichloropropene	ug/L	20	19.7	99	85-120	
Trichloroethene	ug/L	20	19.7	98	76-114	
Vinyl chloride	ug/L	20	20.6	103	69-129	
Xylene (Total)	ug/L	60	61.0	102	80-120	
1,2-Dichloroethane-d4 (S)	%			97	81-127	
4-Bromofluorobenzene (S)	%			96	77-130	
Toluene-d8 (S)	%			101	80-120	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60232090

QC Batch: 455341 Analysis Method: SM 2320B
QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity
Associated Lab Samples: 60232090008, 60232090009

METHOD BLANK: 1864524 Matrix: Water
Associated Lab Samples: 60232090008, 60232090009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Carbonate (CaCO3)	mg/L	ND	20.0	4.9	11/17/16 11:06	
Alkalinity, Total as CaCO3	mg/L	ND	20.0	4.9	11/17/16 11:06	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	20.0	4.9	11/17/16 11:06	

LABORATORY CONTROL SAMPLE: 1864525

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	500	527	105	90-110	

SAMPLE DUPLICATE: 1864526

Parameter	Units	60232095001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Carbonate (CaCO3)	mg/L	ND	ND		10	
Alkalinity, Total as CaCO3	mg/L	78.6	80.9	3	10	
Alkalinity,Bicarbonate (CaCO3)	mg/L	78.6	80.9	3	10	

SAMPLE DUPLICATE: 1864528

Parameter	Units	60232095005 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Carbonate (CaCO3)	mg/L	ND	ND		10	
Alkalinity, Total as CaCO3	mg/L	81.0	82.6	2	10	
Alkalinity,Bicarbonate (CaCO3)	mg/L	81.0	82.6	2	10	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60232090

QC Batch: 455130 Analysis Method: SM 4500-S-2 D
QC Batch Method: SM 4500-S-2 D Analysis Description: 4500S2D Sulfide, Total
Associated Lab Samples: 60232090008, 60232090009

METHOD BLANK: 1863634 Matrix: Water
Associated Lab Samples: 60232090008, 60232090009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide, Total	mg/L	ND	0.050	0.019	11/16/16 13:48	

LABORATORY CONTROL SAMPLE: 1863635

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	.5	0.50	99	80-120	

MATRIX SPIKE SAMPLE: 1863636

Parameter	Units	60232090008 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	ND	.5	0.40	80	75-125	

SAMPLE DUPLICATE: 1863637

Parameter	Units	60232090009 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Total	mg/L	ND	ND		20	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60232090

QC Batch: 455759 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 60232090008

METHOD BLANK: 1866326 Matrix: Water
Associated Lab Samples: 60232090008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfate	mg/L	ND	1.0	0.15	11/20/16 17:13	

LABORATORY CONTROL SAMPLE: 1866327

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	5	4.9	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1866328 1866329

Parameter	Units	60232259001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	3.8	5	5	9.5	9.5	114	114	80-120	0	15	

MATRIX SPIKE SAMPLE: 1866330

Parameter	Units	60232095001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	662	250	969	123	80-120	M1

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60232090

QC Batch: 456029 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 60232090008, 60232090009

METHOD BLANK: 1867279 Matrix: Water
Associated Lab Samples: 60232090008, 60232090009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.50	11/22/16 08:40	
Sulfate	mg/L	ND	1.0	0.15	11/22/16 08:40	

LABORATORY CONTROL SAMPLE: 1867280

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	5	4.7	95	90-110	
Sulfate	mg/L	5	4.9	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1867281 1867282

Parameter	Units	60232089001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	10.9	5	5	13.1	13.2	44	46	80-120	1	15	M1
Sulfate	mg/L	9.8	5	5	12.0	12.1	43	46	80-120	1	15	M1

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60232090

QC Batch: 455821 Analysis Method: EPA 350.1
QC Batch Method: EPA 350.1 Analysis Description: 350.1 Ammonia
Associated Lab Samples: 60232090008, 60232090009

METHOD BLANK: 1866775 Matrix: Water
Associated Lab Samples: 60232090008, 60232090009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	ND	0.10	0.013	11/21/16 10:12	

LABORATORY CONTROL SAMPLE: 1866776

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	5	5.0	100	90-110	

MATRIX SPIKE SAMPLE: 1866777

Parameter	Units	60231854004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	288	125	412	99	90-110	

MATRIX SPIKE SAMPLE: 1866779

Parameter	Units	60232035001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	16.1	5	20.8	95	90-110	

SAMPLE DUPLICATE: 1866778

Parameter	Units	60231797002 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Ammonia	mg/L	ND	ND		18	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60232090

QC Batch: 455835 Analysis Method: SM 5310C
QC Batch Method: SM 5310C Analysis Description: 5310C Total Organic Carbon
Associated Lab Samples: 60232090008, 60232090009

METHOD BLANK: 1866815 Matrix: Water
Associated Lab Samples: 60232090008, 60232090009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	0.10J	1.0	0.054	11/21/16 09:35	

LABORATORY CONTROL SAMPLE: 1866816

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	5	5.0	100	80-120	

MATRIX SPIKE SAMPLE: 1866818

Parameter	Units	60232095001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	ND	5	5.9	104	80-120	

SAMPLE DUPLICATE: 1866817

Parameter	Units	60232090008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Organic Carbon	mg/L	0.33J	0.30J		25	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALIFIERS

Project: FORT SMITH, AR
Pace Project No.: 60232090

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-K	Pace Analytical Services - Kansas City

BATCH QUALIFIERS

Batch: 454974

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

Batch: 455417

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

Batch: 455629

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

Batch: 455887

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

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L1	Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
L3	Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: FORT SMITH, AR
Pace Project No.: 60232090

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60232090008	**MW-58-201611**	EPA 3010	454946	EPA 6010	455031
60232090009	**MW-38-201611**	EPA 3010	454946	EPA 6010	455031
60232090001	**EB-03-201611**	EPA 5030B/8260	454974		
60232090002	**ITMW-5-201611**	EPA 5030B/8260	455629		
60232090002	**ITMW-5-201611**	EPA 5030B/8260	455887		
60232090003	**DUP-06-201611**	EPA 5030B/8260	455629		
60232090003	**DUP-06-201611**	EPA 5030B/8260	455887		
60232090004	**ITMW-7-201611**	EPA 5030B/8260	455417		
60232090004	**ITMW-7-201611**	EPA 5030B/8260	455629		
60232090005	**MW-178-201611**	EPA 5030B/8260	455417		
60232090005	**MW-178-201611**	EPA 5030B/8260	455629		
60232090006	**MW-91-201611**	EPA 5030B/8260	455629		
60232090006	**MW-91-201611**	EPA 5030B/8260	455887		
60232090007	**DUP-03-201611**	EPA 5030B/8260	455629		
60232090007	**DUP-03-201611**	EPA 5030B/8260	455887		
60232090008	**MW-58-201611**	EPA 5030B/8260	455629		
60232090008	**MW-58-201611**	EPA 5030B/8260	455887		
60232090009	**MW-38-201611**	EPA 5030B/8260	455629		
60232090009	**MW-38-201611**	EPA 5030B/8260	455887		
60232090010	**ITMW-1-201611**	EPA 5030B/8260	455417		
60232090010	**ITMW-1-201611**	EPA 5030B/8260	455629		
60232090011	**ITMW-10-201611**	EPA 5030B/8260	455629		
60232090012	**DUP-04-201611**	EPA 5030B/8260	455417		
60232090012	**DUP-04-201611**	EPA 5030B/8260	455629		
60232090013	**TB-05-201611**	EPA 5030B/8260	455417		
60232090008	**MW-58-201611**	SM 2320B	455341		
60232090009	**MW-38-201611**	SM 2320B	455341		
60232090008	**MW-58-201611**	SM 4500-S-2 D	455130		
60232090009	**MW-38-201611**	SM 4500-S-2 D	455130		
60232090008	**MW-58-201611**	EPA 300.0	455759		
60232090008	**MW-58-201611**	EPA 300.0	456029		
60232090009	**MW-38-201611**	EPA 300.0	456029		
60232090008	**MW-58-201611**	EPA 350.1	455821		
60232090009	**MW-38-201611**	EPA 350.1	455821		
60232090008	**MW-58-201611**	SM 5310C	455835		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: FORT SMITH, AR
Pace Project No.: 60232090

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60232090009	**MW-38-201611**	SM 5310C	455835		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
www.pacelabs.com

Sample Condition Upon Receipt

WO#: 60232090

60232090

Client Name: Environ

Courier: FedEx ☐ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☐ Client ☐ Other ☐

Tracking #: _____ Pace Shipping Label Used? Yes ☐ No ☑

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

Packing Material: Bubble Wrap ☐ Bubble Bags ☑ Foam ☐ None ☐ Other ☐

Thermometer Used: CF +0.7 T-266 / CF -0.5 T-239 **Type of Ice:** (Wet) Blue None

Cooler Temperature (°C): As-read 8.7 Corr. Factor CF +0.7 / CF -0.5 Corrected 9.4

Date and initials of person examining contents: pw 11/11/16

Temperature should be above freezing to 6°C

Chain of Custody present:	☑Yes ☐No ☐N/A	
Chain of Custody relinquished:	☑Yes ☐No ☐N/A	MW-17B is listed twice
Samples arrived within holding time:	☑Yes ☐No ☐N/A	on COC.
Short Hold Time analyses (<72hr):	☐Yes ☑No ☐N/A	
Rush Turn Around Time requested:	☐Yes ☑No ☐N/A	ITMW-9-20161' container
Sufficient volume:	☑Yes ☐No ☐N/A	ID is ITMW-7-20161'.
Correct containers used:	☑Yes ☐No ☐N/A	
Pace containers used:	☑Yes ☐No ☐N/A	
Containers intact:	☑Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☑N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☑N/A	
Sample labels match COC: Date / time / ID / analyses	☑Yes ☐No ☐N/A	Client selected multiple analyses for
Samples contain multiple phases? Matrix: WT	☐Yes ☑No ☐N/A	Dup 3. Corresponding volume received for
Containers requiring pH preservation in compliance?	☑Yes ☐No ☐N/A	MW-58 & MW-38
(HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO)		
Cyanide water sample checks: ☑N/A		
Lead acetate strip turns dark? (Record only)	☐Yes ☐No	
Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No	
Trip Blank present: cooler	☑Yes ☐No ☐N/A	
Headspace in VOA vials (>6mm):	☐Yes ☑No ☐N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☑N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☑N/A	

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: Notified Environ of sample ID discrepancies. CMC 11/14/16

Per Tammy - ITMW-9-20161' should be ITMW-7-20161'. No phosphate needed. CMC 11/17/16

Project Manager Review: CMC Date: 11/15/16

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: of 2

Section A Required Client Information:

Company:	Environ
Address:	7500 College Blvd., Ste. 925
	Overland Park, KS 66210
Email To:	wstonestreet@environcorp.com
Phone: 913-553-5926	Fax:
Requested Due Date/TAT:	

Section B Required Project Information:

Report To:	Wendy Stonestreet
Copy To:	Tammy Gleason
Purchase Order No.:	NA
Project Name:	Fort Smith, AR
Project Number:	

Section C Invoice Information:

Attention:	Tammy Gleason
Company Name:	Environ
Address:	250 Monroe Ave. NW Grand Rapids
Pace Quote Reference:	Michigan, 49503
Pace Project Manager:	Colleen Clyne
Pace Profile #:	7444, line 1

REGULATORY AGENCY

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

Site Location STATE: AR

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

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

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	8260 VOCs	Alkalinity	TOC	Chloride, Sulfate	8015 Chloroethanol (Pace Dallas)	8310 Iron/Mn Metals	Ferric Iron calc. (send field Ferrous)	Ammonia	Nitrate+Nitrite	Total Phosphate (Pace Dallas)	Sulfide	CO2 Calc (Alkalinity + field pH)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	EB-03-201611	WT	G			11/10/16	1105		3				3						3											60232090
2	ITMW-5-201611	WT	G			11/10/16	1015		3				3						3											
3	Dup-06-201611	WT	G			11/10/16	1015		3				3						3											
4	ITMW-9-201611	WT	G			11/10/16	0910		3				3						3											
5	MW-178-201611	WT	G			11/10/16	1030		3				3						3											
6	MW-91-201611	WT	G			11/10/16	0905		3				3						3											
7	Dup-03-201611	WT	G			11/10/16	0905		3				3						3	X	X	X	X	X	X	X	X	X		
8	MW-58-201611	WT	G			11/10/16	0925	VS	9	X	X	X	X	X	X				8	X	X	X	X	X	X	X	X	X		
9	MW-38-201611	WT	G			11/10/16	1205	VS	9	X	X	X	X	X	X				3											
10	MW-178-201611	WT	G			11/10/16	1036		3				3						3											
11	ITMW-1-201611	WT	G			11/10/16	0900		3				3						3											
12	ITMW-10-201611	WT	G			11/10/16	1037		3				3						3											

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Victoria Stegall RE	11/10/16	1800		11/10	1800	9.4 Y Y Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Victoria Stegall

SIGNATURE of SAMPLER: Victoria Stegall DATE Signed (MM/DD/YY): 11/10/16

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

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

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

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Environ	Report To:	Wendy Stonestreet	Attention:	Tammy Gleason
Address:	7500 College Blvd., Ste. 925	Copy To:	Tammy Gleason	Company Name:	Environ
	Overland Park, KS 66210			Address:	250 Monroe Ave. NW Grand Rapids
Email To:	wstonestreet@environcorp.com	Purchase Order No.:	NA	Pace Quote Reference:	Michigan, 49503
Phone:	913-553-5926 Fax:	Project Name:	Fort Smith, AR	Pace Project Manager:	Colleen Clyne
Requested Due Date/TAT:		Project Number:		Pace Profile #:	7444, line 1

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER

☐ UST ☐ RCRA ☑ OTHER ADEQ

Site Location STATE: AR

Requested Analysis Filtered (Y/N)

ITEM #	Section D Required Client Information: SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	Valid Matrix Codes: MATRIX / CODE (DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	8260 VOCs	Alkalinity	TOC	Chloride, Sulfate	8015 Chloroethanol (Pace Dallas)	6010-Iron/Mn	Ferric Iron calc. (send field Ferrous)	Ammonia	Nitrate+Nitrite	Total Phosphate (Pace Dallas)	Sulfide	CO2 Calc (Alkalinity + field pH)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	Dup-04-20161l		WT	G			11/10/16	0900		3				3							3													36971 612
2	TB-05-20161l		WT	G			11/10/16	—		2				2							2													36974 013
3																																		
4																																		
5																																		
6																																		
7																																		
8																																		
9																																		
10																																		
11																																		
12									15																									

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Victoria Sign RES	11/10/16	1800		11/10	1800	0.4	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Victoria Sign

SIGNATURE of SAMPLER: Victoria Sign DATE Signed (MM/DD/YY): 11/10/16

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

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

Appendix B

Field Notes and Weather Data for November 2016

Location Fort Smith Date 11/7/2016

Project / Client Whirlpool Annual Groundwater Monitoring / 55° Cloudy

6:00 - Arrive on site. Begin coordination

6:30 - All other associates arrive. Nick Z, Victoria S., Mike R., ~~Taylor~~ Haley Jo B.

700 Conduct meeting. - Go over schedule. Task - Groundwater Monitoring. H&S meeting.

800 - Begin opening wells along Brazil & Jenny Lind

815 - MOB to B&G club

830 - Walked over to B&G club property to locate wells.

- MW-99 may have been destroyed or it is buried.
- Spoke with foreman of construction company. They did not know the location of the well.
- MW-184 marked off. Partially covered by rocks.
- MW-183 is still present but has been run over. Vault has some damage
- MOB to Boiler room to pick up addition tools. MOB to B&G to open remaining wells.
- MOB to offsite WP property
- Gauge property along Jacobs.

CBS

Location Fort Smith Date 11/7/2016

Project / Client Whirlpool Annual GW Monitoring 58° Cloudy, c

1006 - Completed opening wells along Jacobs.

1010 - MOB to the boiler room.

- Pick up supplies at boiler room.

1015 - Head back out to Brazil to begin gauging wells.

1048 - MOB to B&G club.

1159 - Finished gauging all wells.

- MOB to boiler room.
- Collect all gauging forms. Write all readings on one sheet.
- Calls with Tamora HK.
- Talk with Nick to figure out Purge water situation.

1320 - Call with HR for exit interview.

1430 - Calibrate equipment. See calibration sheet.

1520 - MOB to MW-50R.

- MOB to Boiler Room twice to pick up missing equipment.

1600 - Take first reading at MW-50R.

- Allow well to stabilize.

1645 - Collect sample MW-50R-20161107

- Clean up at location.

CBS

Location Fort Smith, Arkansas Date 11/8/2016

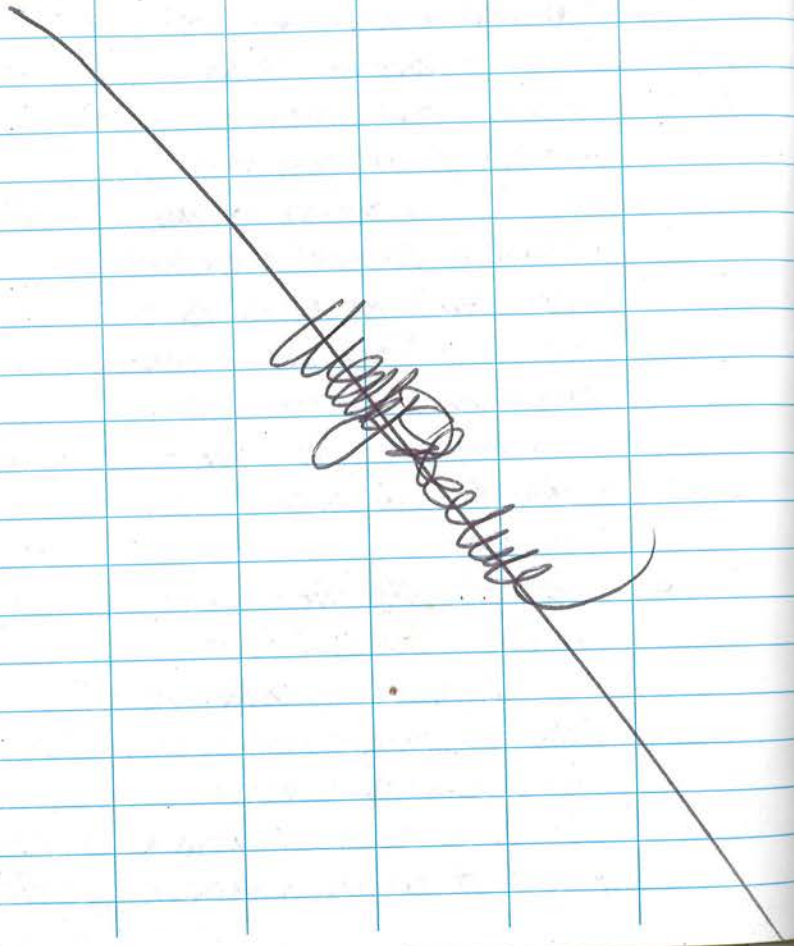
Project / Client 2016 Annual GW Monitoring / Whirlpool

58° Cloudy

1729 - MoB to Boiler Room to begin packing coolers and creating COC for shipment of samples.

1740 - Pack coolers.

1815 - Ramboll Environ OFF-site.



Location Fort Smith, Arkansas Date 11/8/2016

Project / Client 2016 Annual GW Monitoring / Whirlpool

58° Cloudy

600 - Arrive on site.
- Unlock gate and boiler room.

615 - Security gaurd arrived to check building.
- Cleaned up Boiler Room & Office and began prep for the day.

645 - Samplers arrive on site: Victoria, Haley, JoB, Mike R., Nick Z.

700 - Drove over to construction site to talk to Construction foreman about sampling MW-183 & MW-184.
- MoB back to boiler room to discuss with samplers. safety concerns in construction area. Called Tammy to inform her of status.

730 - MoB to Walmart to purchase DI water.

745 - MoB to MW-184 to give Haley DI water.
- Took pictures of MW-183
- MoB to Boiler Room to collect vapor sampling gear.
- Call from Mike R. Brought persulfate kit to Mike and asorbic acid VOAs.

WES

Location Fort Smith, Arkansas Date 11/8/2016

Project / Client 2016 Annual GW Monitoring / Whirlpool

68° cloudy

0830 - MOB to VP-09 to begin set up for vapor monitoring.
- Water in vault, but line is clear of water.
- Begin set up for sampling.

900 - Checked valves using shut in test. Passed.
- Summa canister cap threading is poor. Cannot attach nut & ferrule without leakage.
- Summa canister cannot be used
- MOB to boiler room to retrieve spare Summa.
- Hardy H. at Boiler room. Spoke to him about schedule.

935 - MOB back to ~~###~~ VP-09 to recheck all points in sampling chain. All shut in points passed.
Summa ID: 0969
Flow Controller: FC0370.
- Evacuated line using vacuum pump.

946 - Opened valve & toggle switch.

Location Fort Smith, Arkansas Date 11/8/2016

Project / Client 2016 Annual GW Monitoring / Whirlpool

70° Sunny

- Vacuum on valve = -27 "Hg.

1000 - Check well VP-10 for water. Water in vapor line.

1005 - Collect sample. VP-10-20161l
- Clean up on site.

1015 - MOB to VP-15
- ~~###~~ Pump is malfunctioning.
- MOB to Boiler Room 3 times to fix or replace battery & check cords.

1200 - Got spare battery from M. Rowitch.
- Well has water in line, but cannot collect full VOA.
- MOB to VP-12.
- Set up on VP-12.
- Water in line.

1230 - Collect sample VP12-20161l.
- MOB to VP-09 to check summa.

1253 - Vacuum on valve = -19" Hg
- MOB to VP-08 & 07.
- Set up on VP-07.

1300 - Collect water sample VP-07-20161l
- Move to VP-08

1320 - Collect water sample VP-08-20161l

Location Fort Smith, Arkansas Date 11/8/2016

Project / Client 2016 Annual GW Monitoring / Whirlpool 65° Cloudy

0850 -	MOB to VP-05 & VP-06
1404 -	Collect samples [VP-06-201611]
-	MOB to VP-05
1412 -	Collect sample [VP-05-201611]
-	Clean up on site and MOB to boiler room to collect equipment for bubble stripping.
-	Spoke with Jo at boiler room. Assisted with MS/MSD.
1455 -	MOB to lunch.
1520 -	MOB to MW-50R to collect H^+ samples
-	Set up on well.
1525 -	Injected air into chamber. Flow rate ~ 200 mL/min.
1545 -	Collect sample [MW-50R-201611]
-	MOB to boiler room to get MS/MSD for Haley.
-	MOB to MW-191 to give sample to Haley.
-	Stop at ITMW-9 to see progress.
-	MOB to VP-09 to check pressure.
1625 -	Gas Vacuum on gauge = -7½" Hg.
-	MOB to Boiler Room, Pick up COC.
-	MOB to ITMW-9 to check progress.

Location Fort Smith, Arkansas Date 11/8/2016

Project / Client 2016 Annual GW Monitoring / Whirlpool 65° Cloudy.

-	MOB to store to purchase ice.
-	Drop off ice with Haley.
-	MOB to ITMW-9.
-	Wait until Jo has completed sampling. Fill out COC.
-	Begin set-up for H^+ sampling.
-	Set pump speed at 200 mL/min
1709 -	Begin purge
1729 -	Collect H^+ sample [ITMW-9-201611]
-	Clean up location and head back to boiler room.
-	Bring samples into boiler room.
1740 -	Head out to VP-09-2016
-	Pressure on gauge = -2" Hg.
1759 -	Close Summa canister.
-	MOB to Boiler Room.
-	Create COC for VP-09.
1840 -	Ramboll ENVIRON - OFFSITE

Location Fort Smith, Arkansas Date 11/9/2016

Project / Client 2016 GW Monitoring Event / Whirlpool

55° Part Sunny

625 - Arrive on-site.
- Victoria S. & Haley already here.
- Prepare for the day. Begin calibration of instrument. See calibration sheet.
- Haley finished calibrating.
- MOB to MW-183.
- Talked to the foreman of the construction crew to let him know we would be blocking off the access road to sample.
- Blocked Access Road.

720 - Begin to take sample readings at well.
- Watch for construction around SI well site.

820 - Haley collected sample.
- Clean up at well site and MOB to boiler room.
- Get equipment ready and dump purge water from 11/8/2016.
- MOB to RW-69.

900 - Begin set-up on well.
- Allow well parameters to stabilize.

1025 - Collect Sample [RW-69-201611]

CMS

Location Fort Smith, Arkansas Date 11/9/2016

Project / Client 2016 GW Monitoring / Whirlpool

66° Sunny

- Bubble strip well for H^+.

1208 - MOB to boiler room to charge battery. Battery died near the end of sampling RW-69.
- MOB to MW-26 to get persulfate testing kit from Mike R.
- Gave persulfate testing kit to Haley at ~~MW-180~~ MW-179.

1230 - Set up on WES MW-25
- Stabilize field parameters

1340 - Collect Sample [MW-25-201611]
- Start H^+ sampling.
- Showed Haley how to sample.

1450 - MOB to MW-86
- Stabilize field parameters

1550 - Collect Sample [MW-86-201611]
- Start H^+ sampling
- Collect H^+ Sample.
- MOB back to boiler room after cleaning up at site pad.

1845 - Wendy Stonestreet OFFSITE

CMS

Location Fort Smith, AR Date 11-~~7~~16

Project / Client Whirlpool

1103 Finish gauging wells w/ HA & report back to boiler room to prepare for sampling.

1136 Calibrate:
SC = 1.341
ORP = 240.0 mv
pH 1 = ~~7.00~~ MSR 6.88
pH 2 = 4.00
pH 3 = 10.00
DO = 98.9 %
Turb meter: Model 2020we SN = 1664-102

1150 Get ice for sample preservation and eat lunch.

1227 Arrive at MW-68

1244 Pump-on & set at ~15 ft. Initial DTW = 7.15 ft BTOC

1254 Pumping rate ~ 90 mL/min.

1400 1 gallon pumped. Sample MW-68-20161Q

1416 MW-55R pump-on. Initial DTW = 3.01 ft BTOC
* Herron Dipper-T SN: 11074 is water level meter used.

1503 Sample MW-55R-20161O

1510 Pump off. Final DTW = 3.75 ft BTOC

Location Fort Smith, AR Date 11-7

Project / Client Whirlpool

1517 Depart from MW-55R for MW-39R

1524 Arrive at MW-39R

1530 Pump-on. Operated on b power. Initial DTW = 12.8 Pump is set at ~ 24.7

1618 Sample MW-39R-20161O

1625 Pump-off. Final DTW = 11.97

1638 Head to boiler room to pack samples and help fill-out chains.

1650 Call VS from boiler room. to get ice for the we

1655 Arrive back at boiler ro to unload equipment and bag ice

1813 Leave site for ~~Fed~~ Ex

MJR

on Fort Smith, AR Date 11-10-16

t / Client Whirlpool

On-site
Begin calibn.
H+S meeting: cold stress
Depart for MW-91
Arrive at MW-91
Initial DTW for MW-91 = 11.52 ft BTOC
Pump on (battery powered) at speed of 2.90 ± 100mL/min

Weather:
Sunny, 38° F 0-10 mph breeze out of the E.

Calibn.
Turbidity meter: same SN as previous days
YSI - same SN as previous days
SC = 1413 µS/cm
ORP = 240.0
PH 1 = 7.00
PH 2 = 4.00

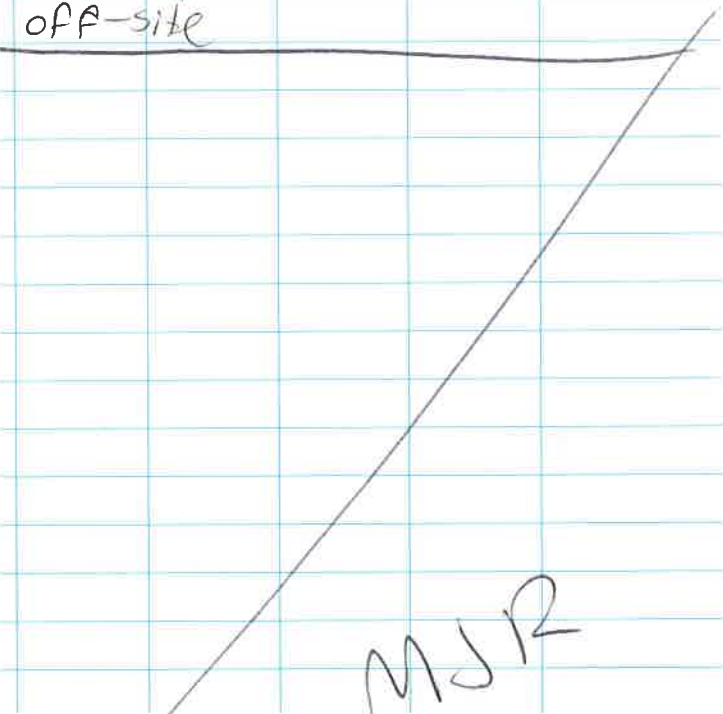
0950	obtain sample vials for MW-178 & MW-179 from HA. Wells purged dry previous day, so taking sample directly.
0956	Arrive at MW-179 & MW-178
~~1013~~	~~Sample MW-178-20161l~~ MJR
	~~Sample MW-179-20161l~~ MJR
1012	MW-179 Initial DTW = 13.73 ft BTOC
1024	Water is turbid. Not enough water to obtain sample from MW-179.
1025	Move to MW-178
	MW-178 Initial DTW = 7.03 ft BTOC
1037	Sample MW-179-20161l Pumped dry previous day
1041	Final MW-178 DTW = 7.33 ft BTOC
	Pumping rate ~ 100 mL/min.
	Sample was very turbid
1042	Pump off

on Whirlpool, Fort Smith Date 11-10-16

t / Client Whirlpool

Arrive at boiler room to pack samples & prepare to close up site

off-site



Location Date

Project / Client

report this ad

Fort Smith, AR

Fort Smith Regional

11:58 AM CST on December 23, 2016 (GMT -0600)

Today Forecast

Weather History for KFSM - November, 2016

November Precip Stats: Actual Month Total: 1.59 in | Average Month Total: 4.44 in

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1 Actual: 86° | 57° 0.00 in Average: 70° | 46° 0.15 in	**2** Actual: 85° | 65° 0.00 in Average: 69° | 45° 0.14 in	**3** Actual: 77° | 65° T in Average: 69° | 45° 0.15 in	**4** Actual: 79° | 58° 0.00 in Average: 68° | 45° 0.15 in	**5** Actual: 73° | 52° 0.00 in Average: 68° | 44° 0.15 in
6 Actual: 74° | 44° T in Average: 67° | 44° 0.15 in	**7** Actual: 64° | 59° 0.02 in Average: 67° | 44° 0.15 in	**8** Actual: 72° | 58° 0.01 in Average: 66° | 43° 0.15 in	**9** Actual: 73° | 46° 0.00 in Average: 66° | 43° 0.15 in	**10** Actual: 72° | 37° 0.00 in Average: 66° | 43° 0.15 in	**11** Actual: 75° | 40° 0.00 in Average: 65° | 42° 0.16 in	**12** Actual: 66° | 41° 0.00 in Average: 65° | 42° 0.15 in
13 Actual: 67° | 35° 0.00 in Average: 64° | 41° 0.16 in	**14** Actual: 76° | 43° 0.00 in Average: 64° | 41° 0.16 in	**15** Actual: 81° | 45° 0.00 in Average: 63° | 41° 0.15 in	**16** Actual: 87° | 45° 0.00 in Average: 63° | 40° 0.15 in	**17** Actual: 82° | 49° 0.00 in Average: 62° | 40° 0.15 in	**18** Actual: 74° | 38° 0.10 in Average: 62° | 39° 0.15 in	**19** Actual: 54° | 30° 0.00 in Average: 61° | 39° 0.15 in
20 Actual: 62° | 26° 0.00 in Average: 61° | 39° 0.15 in	**21** Actual: 71° | 36° 0.00 in Average: 60° | 38° 0.14 in	**22** Actual: 64° | 50° 0.07 in Average: 60° | 38° 0.14 in	**23** Actual: 58° | 41° 0.30 in Average: 59° | 37° 0.15 in	**24** Actual: 61° | 34° 0.00 in Average: 59° | 37° 0.14 in	**25** Actual: 60° | 39° 0.00 in Average: 58° | 37° 0.14 in	**26** Actual: 57° | 31° 0.00 in Average: 58° | 36° 0.14 in
27 Actual: 57° | 39° 0.01 in Average: 57° | 36° 0.14 in	**28** Actual: 66° | 42° 1.08 in Average: 57° | 36° 0.15 in	**29** Actual: 72° | 41° 0.00 in Average: 56° | 35° 0.14 in	**30** Actual: 54° | 33° T in Average: 56° | 35° 0.14 in			

Calendar Legend

Sunny / Clear · Mostly Cloudy · Partly Cloudy · Cloudy · Rain · Snow

Hail Flurries · Thunderstorms · Hazy / Fog · Sleet · '?' denotes 'chance of' · Unknown

report this ad

Appendix C
Risk Calculations and Input Parameters

Contents:

C.1 Toxicity Values
C.2 Physical and Chemical Properties

C.3 Soil Moisture Profile for Residential Building (Slab-on-Grade) for Risk Calculations from Groundwater at Monitoring Wells
C.4 Normalized Indoor Air Concentration in a Residential Building (Slab-on-Grade) due to Vapor Intrusion from Groundwater at Monitoring Wells
C.5 Cancer Risk and Hazard Index Calculations for Vapor Intrusion into a Residential Building (Slab-on-Grade) from Groundwater at Monitoring Wells in the Neighborhood

C.6 Soil Moisture Profile for Residential Building (Slab-on-Grade) at Soil Vapor Monitoring Point VP-5 (Parcel 1)
C.7 Normalized Indoor Air Concentration in a Residential Building (Slab-on-Grade) due to Vapor Intrusion from Perched Water at VP-5 (Parcel 1)
C.8 Cancer Risk and Hazard Index Calculations for Vapor Intrusion into a Residential Building (Slab-on-Grade) from Perched Water at VP-5 (Parcel 1)
C.9 Soil Moisture Profile for Residential Building (Slab-on-Grade) at Soil Vapor Monitoring Point VP-6 (Parcel 1)
C.10 Normalized Indoor Air Concentration in a Residential Building (Slab-on-Grade) due to Vapor Intrusion from Perched Water at VP-6 (Parcel 1)
C.11 Cancer Risk and Hazard Index Calculations for Vapor Intrusion into a Residential Building (Slab-on-Grade) from Perched Water at VP-6 (Parcel 1)

C.12 Soil Moisture Profile for Residential Building (Slab-on-Grade) at Soil Vapor Monitoring Point VP-7 (Parcel 2)
C.13 Normalized Indoor Air Concentration in a Residential Building (Slab-on-Grade) due to Vapor Intrusion from Perched Water at VP-7 (Parcel 2)
C.14 Cancer Risk and Hazard Index Calculations for Vapor Intrusion into a Residential Building (Slab-on-Grade) from Perched Water at VP-7 (Parcel 2)
C.15 Soil Moisture Profile for Residential Building (Slab-on-Grade) at Soil Vapor Monitoring Point VP-8 (Parcel 2)
C.16 Normalized Indoor Air Concentration in a Residential Building (Slab-on-Grade) due to Vapor Intrusion from Perched Water at VP-8 (Parcel 2)

C.17 Cancer Risk and Hazard Index Calculations for Vapor Intrusion into a Residential Building (Slab-on-Grade) from Perched Water at VP-8 (Parcel 2)

C.18 Cancer Risk and Hazard Index Calculations for Vapor Intrusion into a Residential Building (Slab-on-Grade) from Soil Vapor at VP-9 (Parcel 3)
C.19 Soil Moisture Profile for Residential Building (Slab-on-Grade) at Soil Vapor Monitoring Point VP-10 (Parcel 3)
C.20 Normalized Indoor Air Concentration in a Residential Building (Slab-on-Grade) due to Vapor Intrusion from Perched Water at VP-10 (Parcel 3)
C.21 Cancer Risk and Hazard Index Calculations for Vapor Intrusion into a Residential Building (Slab-on-Grade) from Perched Water at VP-10 (Parcel 3)

C.22 Soil Moisture Profile for Residential Building (Slab-on-Grade) at Soil Vapor Monitoring Point VP-12 (Parcel 4)
C.23 Normalized Indoor Air Concentration in a Residential Building (Slab-on-Grade) due to Vapor Intrusion from Perched Water at VP-12 (Parcel 4)
C.24 Cancer Risk and Hazard Index Calculations for Vapor Intrusion into a Residential Building (Slab-on-Grade) from Perched Water at VP-12 (Parcel 4)

C.25 Soil Moisture Profile for Residential Building (Slab-on-Grade) at Groundwater Monitoring Well MW-55R (Parcel 6)
C.26 Normalized Indoor Air Concentration in a Residential Building (Slab-on-Grade) due to Vapor Intrusion from Groundwater at MW-55R (Parcel 6)
C.27 Cancer Risk and Hazard Index Calculations for Vapor Intrusion into a Residential Building (Slab-on-Grade) from Groundwater at MW-55R (Parcel 6)

C.28 Soil Moisture Profile for Residential Building (Slab-on-Grade) at Shallow Groundwater Monitoring Well MW-178 (Parcel 5)
C.29 Normalized Indoor Air Concentration in a Residential Building (Slab-on-Grade) due to Vapor Intrusion from Shallow Groundwater at MW-178 (Parcel 5)
C.30 Cancer Risk and Hazard Index Calculations for Vapor Intrusion into a Residential Building (Slab-on-Grade) from Shallow Groundwater at MW-178 (Parcel 5)

Attachment C.1: Toxicity Values
Whirlpool, Fort Smith, Arkansas

Chem Group	Chemical	CASRN	Cancer Classification		ADAF			URF ($mg/m^3)^{-1}$			RfC (mg/m^3)			
			Group	Ref	Y/N	f_{oral}	f_{inh}	Value	Ref	Notes	Value	UF	Ref	Notes
VOC	Acetone	67-64-1	ID	1	N						3.1E+01	100	129	111
VOC	Benzene	71-43-2	A	1	N			7.8E-03	1	60	3.0E-02	300	1	
VOC	Bromoform	75-25-2	B2	1	N			1.1E-03	1				126	90
VOC	Bromomethane	74-83-9	ID	126	N						5.0E-03	100	1	
VOC	2-Butanone	78-93-3	ID	1	N						5.0E+00	300	1	
VOC	Carbon Disulfide	75-15-0			N						7.0E-01	30	1	
VOC	Chloroform	67-66-3	B2	1	N			2.3E-02	1		5.0E-02	100	117	
VOC	Chloromethane	74-87-3	D	1	N						9.0E-02	1,000	1	
VOC	1,2-Dichloroethane	107-06-2	B2	1	N			2.6E-02	1		7.0E-03	3,000	126	
VOC	1,1-Dichloroethene	75-35-4	C	1	N						2.0E-01	30	1	
VOC	cis-1,2-Dichloroethene	156-59-2	ID	1	N								1	90
VOC	trans-1,2-Dichloroethene	156-60-5	ID	1	N								1	90
VOC	Ethyl Benzene	100-41-4	D	1	N						1.0E+00	300	1	
VOC	2-Hexanone	591-78-6	ID	1	N						3.0E-02	3,000	1	
VOC	4-Methyl-2-pentanone	108-10-1	ID	1	N						3.0E+00	300	1	
VOC	Methylene Chloride	75-09-2	LC	1	Y	1	1	1.0E-05	1	159	6.0E-01	30	1	
VOC	Tetrachloroethene	127-18-4	LC	1	N			2.6E-04	1		4.0E-02	1,000	1	
VOC	Toluene	108-88-3	ID	1	N						5.0E+00	10	1	
VOC	Trichloroethene	79-01-6	HC	1	Y	0.202	0.244	4.1E-03	1	159	2.0E-03	100	1	
VOC	Vinyl Chloride	75-01-4	A	1	N			4.4E-03	1	79	1.0E-01	30	1	

Toxicity values were selected following the hierarchy of sources defined by USEPA (Human Health Toxicity Values in Superfund Risk Assessment, 2003), as discussed in Appendix A, Section 4 of the ADEQ-approved Revised Risk Management Plan, which was used as the basis for the ADEQ Remedial Action Decision. Values are current as of December 2016.

References

1 USEPA. Integrated Risk Information System (IRIS). On-line database.

117 USEPA. NCEA. 2003. Risk Assessment Issue Paper for: Derivation of Provisional Subchronic and Chronic RfCs for Chloroform [CASRN 67-66-3]. January 23.

126 Provisional Peer Reviewed Toxicity Values for Superfund (PPRTV) Database.

129 ATSDR. 2013. Minimal Risk Levels. March.

Notes:

60 IRIS provides a range of 2.2E-6 to 7.8E-6 (ug/m3)-1 as the inhalation URF for Benzene.

79 For evaluating partial lifetime exposures that include early-life exposure, the unit risk factor is also used in risk calculations that do not prorate the early-life exposure, per USEPA's May 2000 Toxicological Review.

90 Inadequate data exist to derive a toxicity value, according to the indicated reference.

111 Value as published is an MRL in the indicated reference.

159 Because the chemical has a mutagenic mode of action according to USEPA, the SF and URF are adjusted by the following age-dependent adjustment factors (ADAFs) before use: 10 for ages 0 to 2; 3 for ages 2 to 16; and 1 for ages 16 and older (USEPA 2005).

Attachment C.2: Physical and Chemical Properties
Whirlpool, Fort Smith, Arkansas

Chem Group	Chemical	CASRN	H (unitless)				D_{air} (m^2/d)		D_{water} (m^2/d)		HENRY Ref Temp (°C)
			Value	Adjusted	Ref	Notes	Value	Ref	Value	Ref	Value
VOC	Acetone	67-64-1	1.6E-03	1.1E-03	44		1.1E+00	44	9.8E-05	44	2.5E+01
VOC	Benzene	71-43-2	2.3E-01	1.6E-01	44		7.6E-01	44	8.5E-05	44	2.5E+01
VOC	Bromoform	75-25-2	2.2E-02	1.3E-02	44		1.3E-01	44	8.9E-05	44	2.5E+01
VOC	Bromomethane	74-83-9	2.6E-01	2.0E-01	44		6.3E-01	44	1.0E-04	44	2.5E+01
VOC	2-Butanone	78-93-3	2.3E-03	2.0E-03	50.3	123	7.0E-01	69	8.5E-05	69	2.0E+01
VOC	Carbon Disulfide	75-15-0	1.2E+00	9.3E-01	44		9.0E-01	44	8.6E-05	44	2.5E+01
VOC	Chloroform	67-66-3	1.5E-01	1.1E-01	44		9.0E-01	44	8.6E-05	44	2.5E+01
VOC	Chloromethane	74-87-3	3.6E-01	3.3E-01	50.1	92, 123	1.1E+00	69	5.6E-05	69	2.0E+01
VOC	1,2-Dichloroethane	107-06-2	4.0E-02	2.7E-02	44		9.0E-01	44	8.6E-05	44	2.5E+01
VOC	1,1-Dichloroethene	75-35-4	1.1E+00	8.1E-01	44		7.8E-01	44	9.0E-05	44	2.5E+01
VOC	cis-1,2-Dichloroethene	156-59-2	1.7E-01	1.2E-01	44		6.4E-01	44	9.8E-05	44	2.5E+01
VOC	trans-1,2-Dichloroethene	156-60-5	3.9E-01	2.8E-01	44		6.1E-01	44	1.0E-04	44	2.5E+01
VOC	Ethyl Benzene	100-41-4	3.2E-01	2.0E-01	44		6.5E-01	44	6.7E-05	44	2.5E+01
VOC	2-Hexanone	591-78-6	3.8E-03	3.2E-03	68		7.4E-01	52	7.6E-05	52	2.5E+01
VOC	4-Methyl-2-pentanone	108-10-1	5.6E-03	4.7E-03	50.3	123	6.5E-01	40	6.7E-05	40	2.0E+01
VOC	Methylene Chloride	75-09-2	9.0E-02	6.6E-02	44		8.7E-01	44	1.0E-04	44	2.5E+01
VOC	Tetrachloroethene	127-18-4	7.5E-01	4.9E-01	44		6.2E-01	44	7.1E-05	44	2.5E+01
VOC	Toluene	108-88-3	2.7E-01	1.8E-01	44		7.5E-01	44	7.4E-05	44	2.5E+01
VOC	Trichloroethene	79-01-6	4.2E-01	2.9E-01	44		6.8E-01	44	7.9E-05	44	2.5E+01
VOC	Vinyl Chloride	75-01-4	1.1E+00	9.0E-01	44		9.2E-01	44	1.1E-04	71	2.5E+01

Physical and chemical parameters were selected following the hierarchy of sources used by USEPA (Soil Screening Guidance: Technical Background Document, 1996), as discussed in Appendix A, Section 54 of the ADEQ-approved Revised Risk Management Plan, which was used as the basis for the ADEQ Remedial Action Decision.

References:

40 Research Triangle Institute, Center for Environmental Analysis. 1995. Supplemental Technical Support Document for Hazardous Waste Identification Rule: Risk Assessment for Human and Ecological Receptors--Volume 1, TABLE A-1. November 1995.

44 USEPA. 1996. Soil Screening Guidance: Technical Background Document and User Guide. Office of Emergency and Remedial Response. EPA/540/R-95/128. May.

50.1 USEPA. 1997. Superfund Chemical Data Matrix (SCDM). Office of Emergency and Remedial Response. September 12.

50.3 USEPA. 20014. Superfund Chemical Data Matrix (SCDM). Office of Superfund Remediation and Technology Innovation. June 20, 2014.

52 USEPA. 1997. CHEM9 Compound Properties Estimation and Data. Version 1.00. Office of Air Quality Planning and Standards. July.

68 PHYSPROP data base. Syracuse Research Corporation.

69 USEPA. 2004. WATER9. Version 2.0.0. Office of Air Quality Planning and Standards. July.

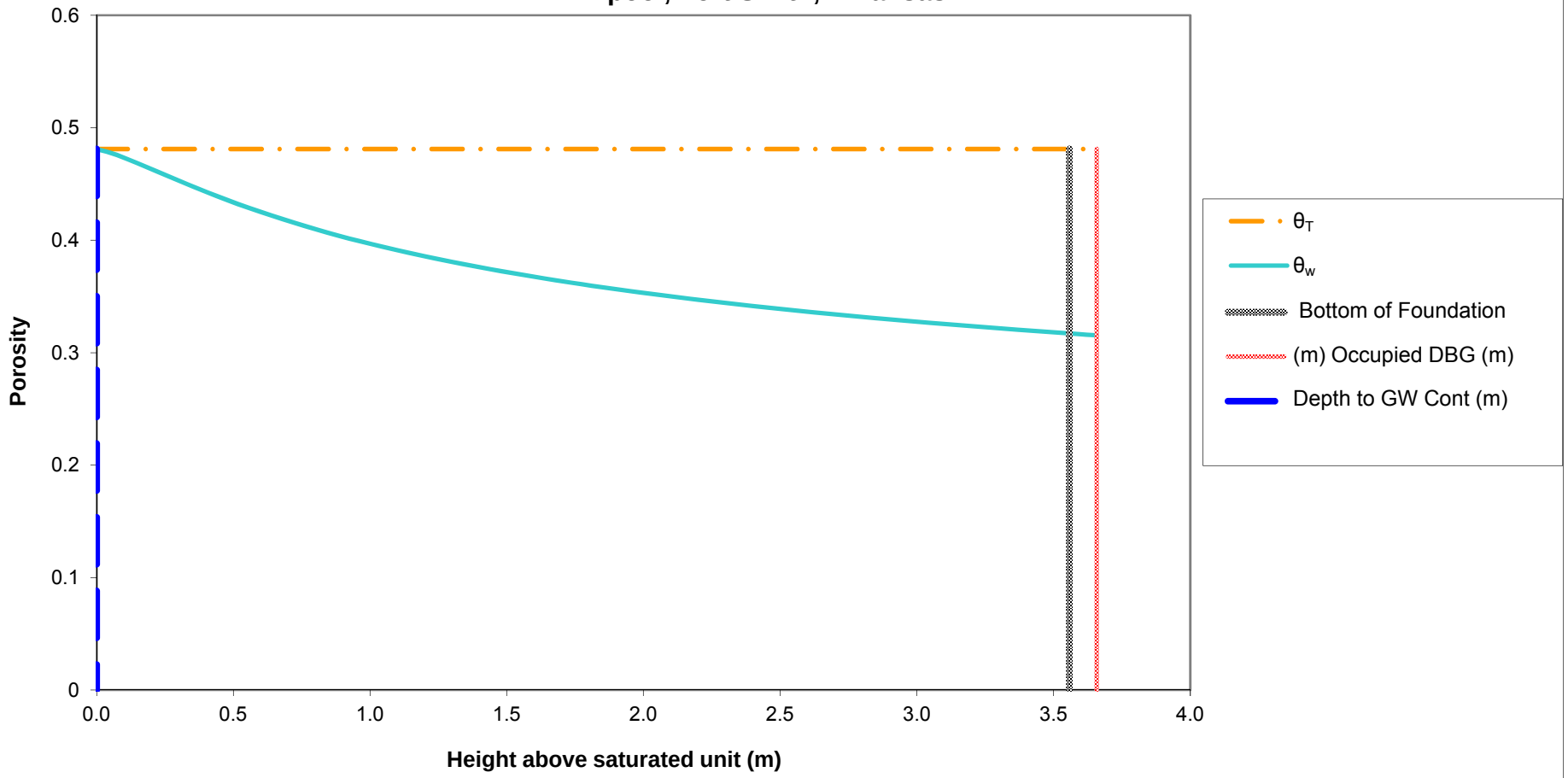
71 USEPA. 2002. Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. Office of Solid Waste and Emergency Response. OSWER 9355.4-24. December.

Notes:

92 Indicated source cites CHEMFATE.

123 Value has been assigned a default reference temperature.

Attachment C.3: Soil Moisture Profile for Residential Building (Slab-on-Grade) for Risk Calculations from Groundwater at Monitoring Wells Whirlpool, Fort Smith, Arkansas



Notes:
The soil-water profile in the vadose zone is estimated using the van Genuchten soil-water retention equation with default water retention parameters appropriate for silt clay, as discussed in Appendix A, Section 3.3.1 of the ADEQ-approved Revised Risk Management Plan, which was used as the basis for the ADEQ Remedial Action Decision.

Attachment C.4: Normalized Indoor Air Concentration in a Residential Building (Slab-on-Grade) due to Vapor Intrusion from Groundwater at Monitoring Wells
Whirlpool, Fort Smith, Arkansas

Chem Group	Chemical	CASRN	D_{air} (m^2/day)	D_{water} (m^2/day)	H (unitless)	D_{crack} (m^2/day)	D_{eff}^T (m^2/day)	α_{soil}	α_{slab}	α_∞	C_{bldg} (L-water/m^3)
VOC	Acetone	67-64-1	1.07E+00	9.85E-05	1.14E-03	1.72E-01	1.87E-02	6.80E-02	2.73E-03	1.86E-04	2.12E-04
VOC	Benzene	71-43-2	7.60E-01	8.47E-05	1.59E-01	1.22E-01	8.15E-04	3.17E-03	2.73E-03	8.67E-06	1.38E-03
VOC	Bromoform	75-25-2	1.29E-01	8.90E-05	1.34E-02	2.07E-02	1.64E-03	6.37E-03	2.73E-03	1.74E-05	2.33E-04
VOC	Bromomethane	74-83-9	6.29E-01	1.05E-04	2.01E-01	1.01E-01	7.43E-04	2.89E-03	2.73E-03	7.90E-06	1.59E-03
VOC	Carbon Disulfide	75-15-0	8.99E-01	8.64E-05	9.26E-01	1.44E-01	2.93E-04	1.14E-03	2.73E-03	3.12E-06	2.89E-03
VOC	Chloroform	67-66-3	8.99E-01	8.64E-05	1.07E-01	1.44E-01	1.11E-03	4.32E-03	2.73E-03	1.18E-05	1.27E-03
VOC	Chloromethane	74-87-3	1.09E+00	5.62E-05	3.33E-01	1.75E-01	4.61E-04	1.80E-03	2.73E-03	4.90E-06	1.63E-03
VOC	1,2-Dichloroethane	107-06-2	8.99E-01	8.55E-05	2.74E-02	1.44E-01	2.37E-03	9.19E-03	2.73E-03	2.51E-05	6.88E-04
VOC	1,1-Dichloroethene	75-35-4	7.78E-01	8.99E-05	8.10E-01	1.25E-01	3.12E-04	1.22E-03	2.73E-03	3.32E-06	2.69E-03
VOC	cis-1,2-Dichloroethene	156-59-2	6.36E-01	9.76E-05	1.19E-01	1.02E-01	9.72E-04	3.78E-03	2.73E-03	1.03E-05	1.22E-03
VOC	trans-1,2-Dichloroethene	156-60-5	6.11E-01	1.03E-04	2.81E-01	9.81E-02	5.96E-04	2.32E-03	2.73E-03	6.35E-06	1.79E-03
VOC	Ethyl Benzene	100-41-4	6.48E-01	6.74E-05	2.04E-01	1.04E-01	5.75E-04	2.24E-03	2.73E-03	6.12E-06	1.25E-03
VOC	Methylene Chloride	75-09-2	8.73E-01	1.01E-04	6.60E-02	1.40E-01	1.58E-03	6.14E-03	2.73E-03	1.68E-05	1.11E-03
VOC	Tetrachloroethene	127-18-4	6.22E-01	7.08E-05	4.90E-01	9.99E-02	3.40E-04	1.33E-03	2.73E-03	3.63E-06	1.78E-03
VOC	Toluene	108-88-3	7.52E-01	7.43E-05	1.80E-01	1.21E-01	6.97E-04	2.71E-03	2.73E-03	7.41E-06	1.34E-03
VOC	Trichloroethene	79-01-6	6.83E-01	7.86E-05	2.88E-01	1.10E-01	5.23E-04	2.04E-03	2.73E-03	5.57E-06	1.60E-03
VOC	Vinyl Chloride	75-01-4	9.16E-01	1.06E-04	9.00E-01	1.47E-01	3.44E-04	1.34E-03	2.73E-03	3.66E-06	3.30E-03

Notes:	Crack Soil and Building Characteristics			Crack Soil
	SCS Soil texture class			Sand
	Bulk density	kg/L	ρ_b	1.66
	Total porosity	L/L-soil	θ_T	0.375
	Water-filled porosity	L/L-soil	θ_w	0.054
	Air-filled porosity	L/L-soil	θ_a	0.321
	Residual saturation	L/L-soil	θ_r	0.053
	Hydraulic conductivity	cm/s	**K**	7.4E-03
	Dynamic viscosity of water	g/cm-s	μ_w	0.01307
	Density of water	g/cm^3	ρ_w	1.0
	Gravitational acceleration	cm/s^2	**g**	980.7
	Intrinsic permeability	cm^2	**k**	9.9E-08
	Relative saturation	unitless	S_e	0.004
	van Genuchten N	unitless	**N**	3.177
	van Genuchten M	unitless	**M**	0.685
	Relative air permeability	unitless	k_{rg}	0.998
	Permeability to vapor	cm^2	k_v	9.89E-08
	Distance from building foundation to source	m	$L_{T\text{-}gw}$	3.56
	Bldg foundation thickness	m	L_{crack}	0.1
	Bldg foundation length	m		10.00
	Bldg foundation width	m		10.00
	Bldg occupied height	m		2.44
	Bldg occupied volume	m^3		244.00
	Occupied depth below ground	m		0.0
	Bldg area for vapor intrusion	m^2	A_B	100.0
	Ratio of A_{crack} to A_B		η	4E-04
	Area of cracks	m^2	A_{crack}	4E-02
	Air exchange rate	$hour^{-1}$	**ach**	0.45
	Building ventilation rate	m^3/day	Q_{bldg}	2.64E+03
	Pressure difference between outdoors-indoors	kg/m-s^2	ΔP	1.0
	Viscosity of air	kg/m-s	μ_a	1.8E-05
	Crack length (bldg perimeter)	m	X_{crack}	40
	Crack depth below ground	m	Z_{crack}	0.10
	Crack radius	m	r_{crack}	1E-03
	Soil gas flow rate into bldg	m^3/day	Q_{soil}	7.20

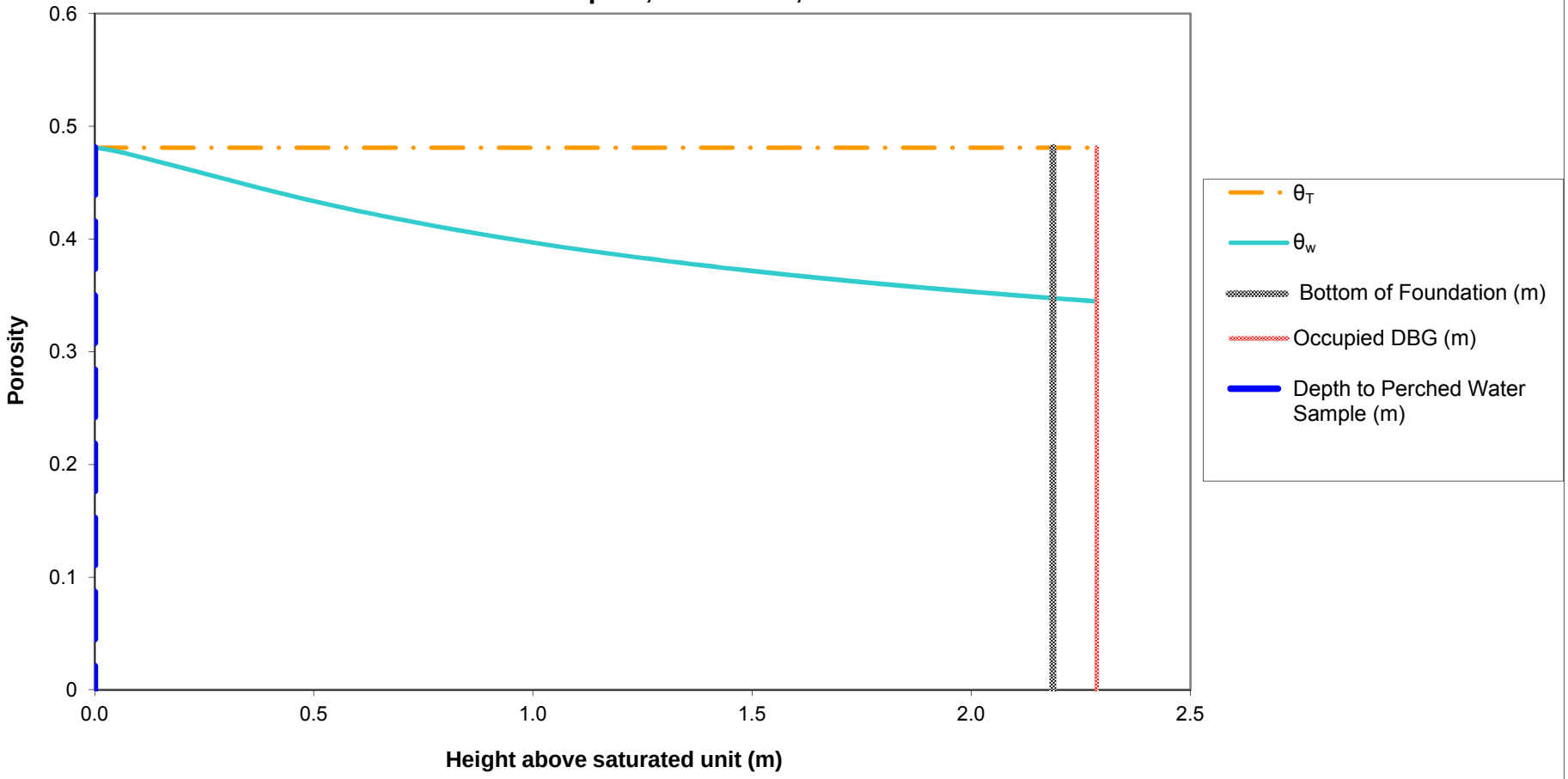
Indoor air concentrations resulting from groundwater vapor intrusion into a building are estimated using the relationships described by Johnson and Ettinger (Heuristic model for predicting the intrusion rate of contaminant vapors into buildings, 1991), which USEPA recommends for screening level calculations, as discussed in Appendix A, Section 3.3.1 of the ADEQ-approved Revised Risk Management Plan, which was used as the basis for the ADEQ Remedial Action Decision.

The effective diffusion term DeffT is calculated based on a silty clay soil, as discussed in Appendix A, Section 3.3.1 of the ADEQ-approved Revised Risk Management Program.

Attachment C.5: Cancer Risk and Hazard Index Calculations for Vapor Intrusion into a Residential Building (Slab-on-Grade) from Groundwater Monitoring Wells in the Neighborhood Whirlpool, Fort Smith, Arkansas

							Cancer				Noncancer	
Chem Group	**Chemical**	**CASRN**	**Carc Class**	**ADAF**	**C_{gw}** (mg/L)	**$C_{building}$** (mg/m^3)	**URF** (m^3/mg)	**f_{inh}**	**Risk**		**RfC** (mg/m^3)	**HQ**
VOC	Acetone	67-64-1	ID	N	1.19E-02	2.52E-06					3.1E+01	7.8E-08
VOC	Benzene	71-43-2	A	N	1.70E-04	2.34E-07	7.8E-03		7.5E-10		3.0E-02	7.5E-06
VOC	Bromoform	75-25-2	B2	N	1.10E-03	2.56E-07	1.1E-03		1.2E-10			
VOC	Bromomethane	74-83-9	ID	N	8.20E-04	1.30E-06					5.0E-03	2.5E-04
VOC	Carbon Disulfide	75-15-0		N	3.70E-04	1.07E-06					7.0E-01	1.5E-06
VOC	Chloroform	67-66-3	B2	N	3.10E-04	3.93E-07	2.3E-02		3.7E-09		5.0E-02	7.5E-06
VOC	Chloromethane	74-87-3	D	N	4.30E-03	7.02E-06					9.0E-02	7.5E-05
VOC	1,2-Dichloroethane	107-06-2	B2	N	1.20E-04	8.26E-08	2.6E-02		8.8E-10		7.0E-03	1.1E-05
VOC	1,1-Dichloroethene	75-35-4	C	N	3.10E-03	8.34E-06					2.0E-01	4.0E-05
VOC	cis-1,2-Dichloroethene	156-59-2	ID	N	2.02E-01	2.47E-04						
VOC	trans-1,2-Dichloroethene	156-60-5	ID	N	1.80E-03	3.22E-06						
VOC	Ethyl Benzene	100-41-4	D	N	2.80E-04	3.50E-07					1.0E+00	3.4E-07
VOC	Methylene Chloride	75-09-2	LC	Y	2.80E-04	3.10E-07	1.0E-05	1	3.2E-12		6.0E-01	5.0E-07
VOC	Tetrachloroethene	127-18-4	LC	N	1.80E-04	3.20E-07	2.6E-04		3.4E-11		4.0E-02	7.7E-06
VOC	Toluene	108-88-3	ID	N	4.80E-04	6.42E-07					5.0E+00	1.2E-07
VOC	Trichloroethene	79-01-6	HC	Y	6.79E-01	1.09E-03	4.1E-03	0.2439	2.5E-06		2.0E-03	5.2E-01
VOC	Vinyl Chloride	75-01-4	A	N	1.60E-03	5.28E-06	4.4E-03		3.3E-08		1.0E-01	5.1E-05
							Cumulative Risk:		3E-06		**HI:**	5E-01
Note:												
f_{inh} is the fraction of the inhalation URF that USEPA identified as having a mutagenic mode of action.												
Only VOCs detected in the Annual 2016 groundwater samples from wells in the neighborhood are shown.												
Risks were calculated assuming residential exposure to groundwater-derived vapors in indoor air for 24 hours per day and 350 days per year for 30 years.												

Attachment C.6: Soil Moisture Profile for Residential Building (Slab-on-Grade) at Soil Vapor Monitoring Point VP-5 (Parcel 1) Whirlpool, Fort Smith, Arkansas



Notes:
The soil-water profile in the vadose zone is estimated using the van Genuchten soil-water retention equation with default water retention parameters appropriate for silt clay, as discussed in Appendix A, Section 3.3.1 of the ADEQ-approved Revised Risk Management Plan, which was used as the basis for the ADEQ Remedial Action Decision.

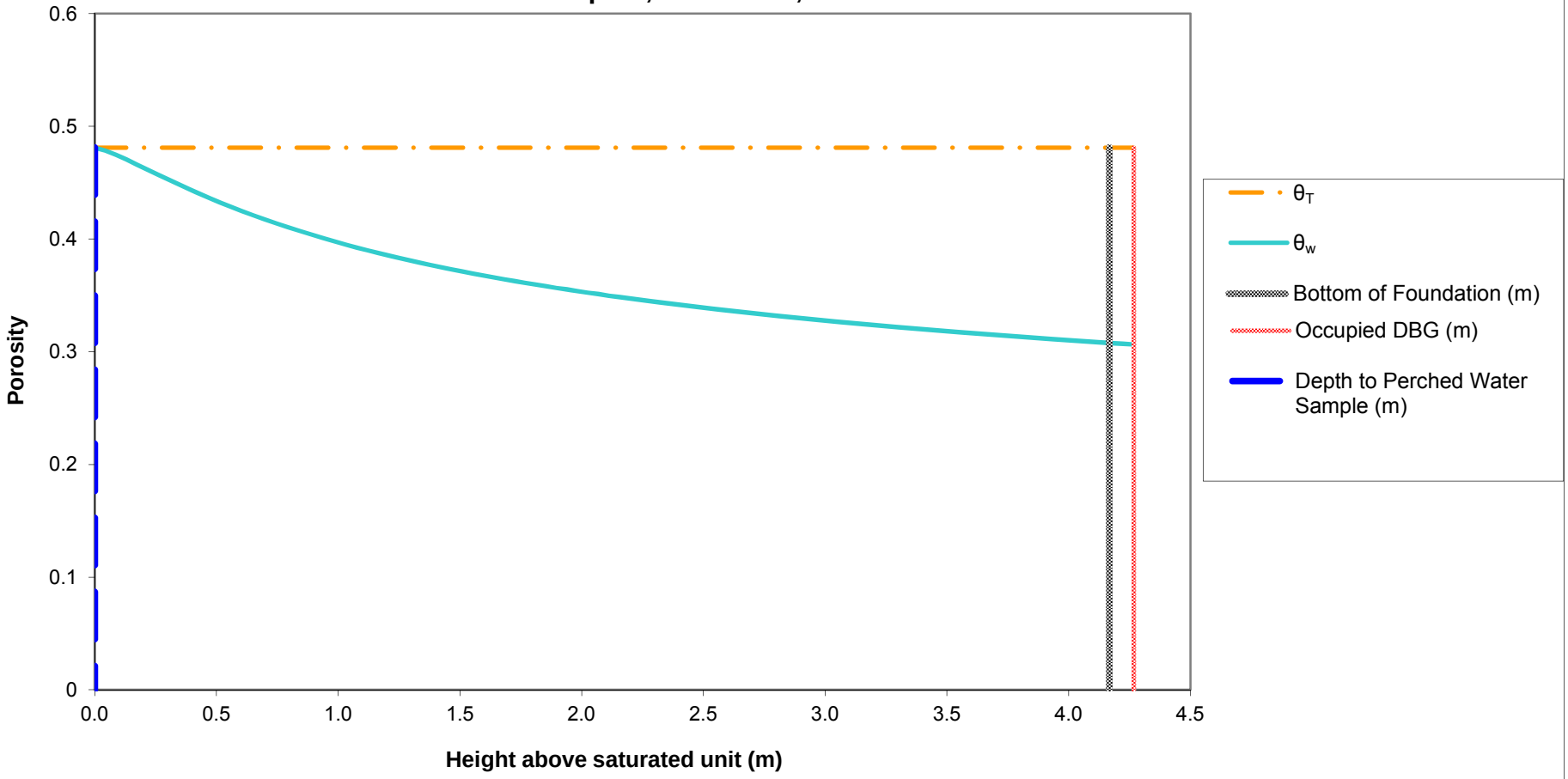
Attachment C.7: Normalized Indoor Air Concentration in a Residential Building (Slab-on-Grade) due to Vapor Intrusion from Perched Water at VP-5 (Parcel 1) Whirlpool, Fort Smith, Arkansas

Chem Group	Chemical	CASRN	D_{air} (m^2/day)	D_{water} (m^2/day)	H (unitless)	D_{crack} (m^2/day)	D_{eff}^T (m^2/day)	α_{soil}	α_{slab}	α_∞	C_{bldg} (L-water/m^3)
VOC	Acetone	67-64-1	1.07E+00	9.85E-05	1.14E-03	1.68E-01	1.93E-02	1.09E-01	2.73E-03	2.99E-04	3.41E-04
VOC	Benzene	71-43-2	7.60E-01	8.47E-05	1.59E-01	1.19E-01	5.27E-04	3.34E-03	2.73E-03	9.13E-06	1.45E-03
VOC	2-Butanone	78-93-3	6.98E-01	8.47E-05	2.00E-03	1.09E-01	9.88E-03	5.91E-02	2.73E-03	1.61E-04	3.23E-04
VOC	Carbon Disulfide	75-15-0	8.99E-01	8.64E-05	9.26E-01	1.41E-01	1.82E-04	1.15E-03	2.73E-03	3.15E-06	2.92E-03
VOC	Chloroform	67-66-3	8.99E-01	8.64E-05	1.07E-01	1.41E-01	7.25E-04	4.59E-03	2.73E-03	1.25E-05	1.35E-03
VOC	2-Hexanone	591-78-6	7.45E-01	7.57E-05	3.23E-03	1.17E-01	6.19E-03	3.78E-02	2.73E-03	1.03E-04	3.34E-04
VOC	4-Methyl-2-pentanone	108-10-1	6.48E-01	6.74E-05	4.71E-03	1.01E-01	4.12E-03	2.55E-02	2.73E-03	6.97E-05	3.29E-04
VOC	Methylene Chloride	75-09-2	8.73E-01	1.01E-04	6.60E-02	1.37E-01	1.07E-03	6.73E-03	2.73E-03	1.84E-05	1.21E-03
VOC	Toluene	108-88-3	7.52E-01	7.43E-05	1.80E-01	1.18E-01	4.47E-04	2.83E-03	2.73E-03	7.74E-06	1.40E-03
Notes:	**Crack Soil and Building Characteristics**			**Crack Soil**							
	SCS Soil texture class			Sand							
	Bulk density	kg/L	ρ_b	1.66							
	Total porosity	L/L-soil	θ_T	0.375							
	Water-filled porosity	L/L-soil	θ_w	0.057							
	Air-filled porosity	L/L-soil	θ_a	0.318							
	Residual saturation	L/L-soil	θ_r	0.053							
	Hydraulic conductivity	cm/s	**K**	7.4E-03							
	Dynamic viscosity of water	g/cm-s	μ_w	0.01307							
	Density of water	g/cm^3	ρ_w	1.0							
	Gravitational acceleration	cm/s^2	**g**	980.7							
	Intrinsic permeability	cm^2	**k**	9.9E-08							
	Relative saturation	unitless	S_e	0.012							
	van Genuchten N	unitless	**N**	3.177							
	van Genuchten M	unitless	**M**	0.685							
	Relative air permeability	unitless	k_{rg}	0.992							
	Permeability to vapor	cm^2	k_v	9.84E-08							
	Distance from building foundation to source	m	L_{T-gw}	2.19							
	Bldg foundation thickness	m	L_{crack}	0.1							
	Bldg foundation length	m		10.00							
	Bldg foundation width	m		10.00							
	Bldg occupied height	m		2.44							
	Bldg occupied volume	m^3		244.00							
	Occupied depth below ground	m		0.0							
	Bldg area for vapor intrusion	m^2	A_B	100.0							
	Ratio of A_{crack} to A_B		η	4E-04							
	Area of cracks	m^2	A_{crack}	4E-02							
	Air exchange rate	$hour^{-1}$	**ach**	0.45							
	Building ventilation rate	m^3/day	Q_{bldg}	2.64E+03							
	Pressure difference between outdoors-indoors	kg/m-s^2	ΔP	1.0							
	Viscosity of air	kg/m-s	μ_a	1.8E-05							
	Crack length (bldg perimeter)	m	X_{crack}	40							
	Crack depth below ground	m	Z_{crack}	0.10							
	Crack radius	m	r_{crack}	1E-03							
	Soil gas flow rate into bldg	m^3/day	Q_{soil}	7.20							
	Indoor air concentrations resulting from groundwater vapor intrusion into a building are estimated using the relationships described by Johnson and Ettinger (Heuristic model for predicting the intrusion rate of contaminant vapors into buildings, 1991), which USEPA recommends for screening level calculations, as discussed in Appendix A, Section 3.3.1 of the ADEQ-approved Revised Risk Management Plan, which was used as the basis for the ADEQ Remedial Action Decision.										
	The effective diffusion term DeffT is calculated based on a silty clay soil, as discussed in Appendix A, Section 3.3.1 of the ADEQ-approved Revised Risk Management Program.										

Attachment C.8: Cancer Risk and Hazard Index Calculations for Vapor Intrusion into a Residential Building (Slab-on-Grade) from Perched Water at VP-5 (Parcel 1) Whirlpool, Fort Smith, Arkansas

							Cancer				Noncancer	
Chem Group	**Chemical**	**CASRN**	**Carc Class**	**ADAF**	**C_{gw}** (mg/L)	**$C_{building}$** (mg/m^3)	**URF** (m^3/mg)	**f_{inh}**	**Risk**		**RfC** (mg/m^3)	**HQ**
VOC	Acetone	67-64-1	ID	N	1.12E-01	3.82E-05					3.1E+01	1.2E-06
VOC	Benzene	71-43-2	A	N	1.50E-03	2.18E-06	7.8E-03		7.0E-09		3.0E-02	7.0E-05
VOC	2-Butanone	78-93-3	ID	N	2.46E-02	7.93E-06					5.0E+00	1.5E-06
VOC	Carbon Disulfide	75-15-0		N	2.10E-03	6.13E-06					7.0E-01	8.4E-06
VOC	Chloroform	67-66-3	B2	N	5.90E-04	7.95E-07	2.3E-02		7.5E-09		5.0E-02	1.5E-05
VOC	2-Hexanone	591-78-6	ID	N	9.50E-03	3.18E-06					3.0E-02	1.0E-04
VOC	4-Methyl-2-pentanone	108-10-1	ID	N	2.60E-03	8.54E-07					3.0E+00	2.7E-07
VOC	Methylene Chloride	75-09-2	LC	Y	7.10E-04	8.61E-07	1.0E-05	1	9.0E-12		6.0E-01	1.4E-06
VOC	Toluene	108-88-3	ID	N	4.70E-04	6.56E-07					5.0E+00	1.3E-07
							Cumulative Risk:		1E-08		**HI:**	2E-04
Note:												
f_{inh} is the fraction of the inhalation URF that USEPA identified as having a mutagenic mode of action.												
Only VOCs detected in the Annual 2016 water sample at VP-5 (Parcel 1) are shown.												
Risks were calculated assuming residential exposure to groundwater-derived vapors in indoor air for 24 hours per day and 350 days per year for 30 years.												

Attachment C.9: Soil Moisture Profile for Residential Building (Slab-on-Grade) at Soil Vapor Monitoring Point VP-6 (Parcel 1) Whirlpool, Fort Smith, Arkansas



Notes:
The soil-water profile in the vadose zone is estimated using the van Genuchten soil-water retention equation with default water retention parameters appropriate for silt clay, as discussed in Appendix A, Section 3.3.1 of the ADEQ-approved Revised Risk Management Plan, which was used as the basis for the ADEQ Remedial Action Decision.

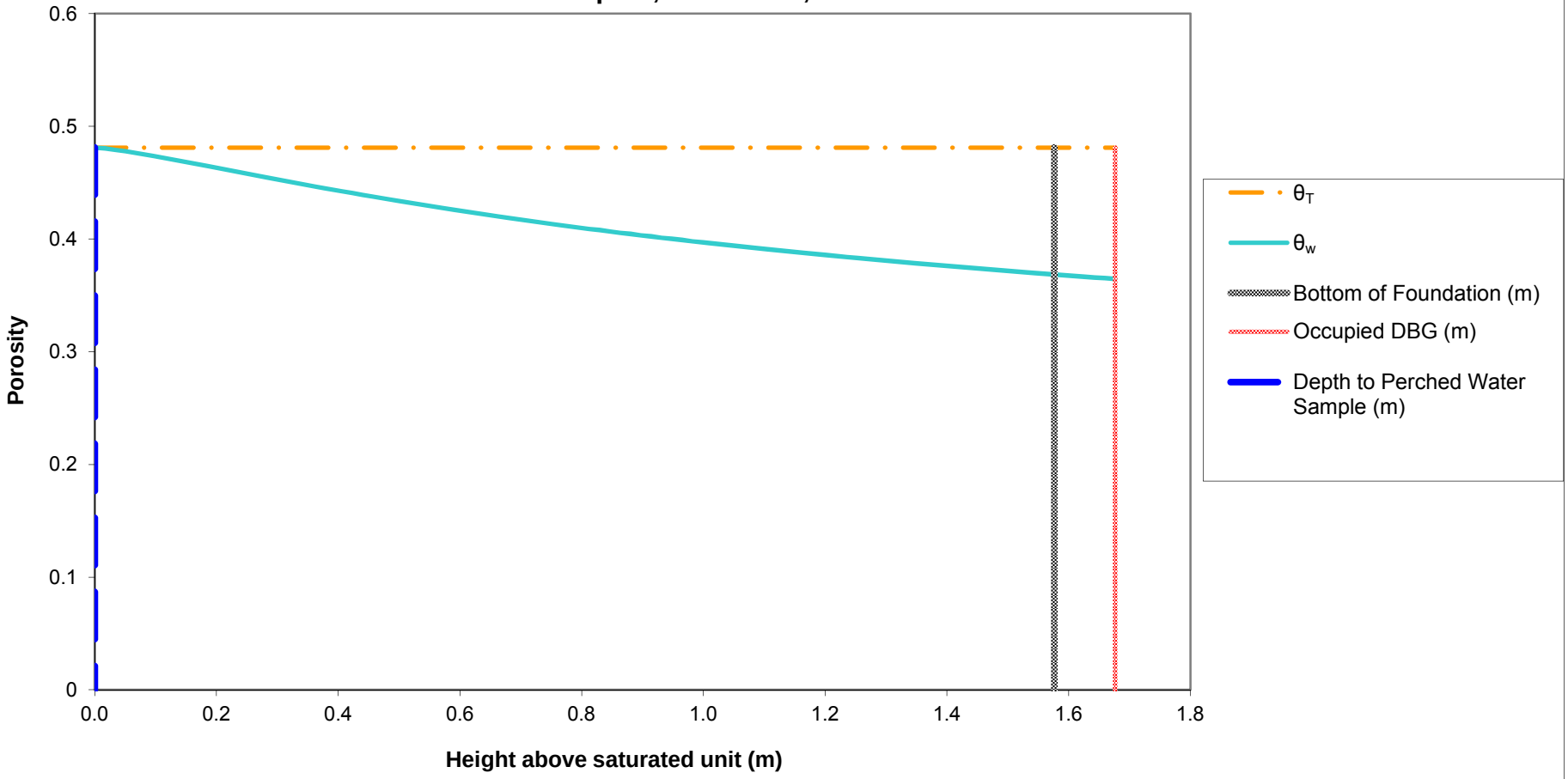
Attachment C.10: Normalized Indoor Air Concentration in a Residential Building (Slab-on-Grade) due to Vapor Intrusion from Perched Water at VP-6 (Parcel 1) Whirlpool, Fort Smith, Arkansas

Chem Group	Chemical	CASRN	D_{air} (m^2/day)	D_{water} (m^2/day)	H (unitless)	D_{crack} (m^2/day)	D_{eff}^T (m^2/day)	α_{soil}	α_{slab}	α_∞	C_{bldg} (L-water/m^3)
VOC	Acetone	67-64-1	1.07E+00	9.85E-05	1.14E-03	1.73E-01	1.89E-02	5.92E-02	2.73E-03	1.62E-04	1.84E-04
VOC	Benzene	71-43-2	7.60E-01	8.47E-05	1.59E-01	1.23E-01	9.37E-04	3.11E-03	2.73E-03	8.50E-06	1.35E-03
VOC	2-Butanone	78-93-3	6.98E-01	8.47E-05	2.00E-03	1.13E-01	1.02E-02	3.28E-02	2.73E-03	8.95E-05	1.79E-04
VOC	Carbon Disulfide	75-15-0	8.99E-01	8.64E-05	9.26E-01	1.45E-01	3.41E-04	1.13E-03	2.73E-03	3.10E-06	2.87E-03
VOC	4-Methyl-2-pentanone	108-10-1	6.48E-01	6.74E-05	4.71E-03	1.04E-01	5.14E-03	1.68E-02	2.73E-03	4.60E-05	2.17E-04
VOC	Methylene Chloride	75-09-2	8.73E-01	1.01E-04	6.60E-02	1.41E-01	1.80E-03	5.97E-03	2.73E-03	1.63E-05	1.08E-03
VOC	Toluene	108-88-3	7.52E-01	7.43E-05	1.80E-01	1.21E-01	8.02E-04	2.67E-03	2.73E-03	7.29E-06	1.31E-03
Notes:	**Crack Soil and Building Characteristics**			**Crack Soil**							
	SCS Soil texture class			Sand							
	Bulk density	kg/L	ρ_b	1.66							
	Total porosity	L/L-soil	θ_T	0.375							
	Water-filled porosity	L/L-soil	θ_w	0.054							
	Air-filled porosity	L/L-soil	θ_a	0.321							
	Residual saturation	L/L-soil	θ_r	0.053							
	Hydraulic conductivity	cm/s	**K**	7.4E-03							
	Dynamic viscosity of water	g/cm-s	μ_w	0.01307							
	Density of water	g/cm^3	ρ_w	1.0							
	Gravitational acceleration	cm/s^2	**g**	980.7							
	Intrinsic permeability	cm^2	**k**	9.9E-08							
	Relative saturation	unitless	S_e	0.003							
	van Genuchten N	unitless	**N**	3.177							
	van Genuchten M	unitless	**M**	0.685							
	Relative air permeability	unitless	k_{rg}	0.998							
	Permeability to vapor	cm^2	k_v	9.90E-08							
	Distance from building foundation to source	m	L_{T-gw}	4.17							
	Bldg foundation thickness	m	L_{crack}	0.1							
	Bldg foundation length	m		10.00							
	Bldg foundation width	m		10.00							
	Bldg occupied height	m		2.44							
	Bldg occupied volume	m^3		244.00							
	Occupied depth below ground	m		0.0							
	Bldg area for vapor intrusion	m^2	A_B	100.0							
	Ratio of A_{crack} to A_B		η	4E-04							
	Area of cracks	m^2	A_{crack}	4E-02							
	Air exchange rate	$hour^{-1}$	**ach**	0.45							
	Building ventilation rate	m^3/day	Q_{bldg}	2.64E+03							
	Pressure difference between outdoors-indoors	$kg/m\text{-}s^2$	ΔP	1.0							
	Viscosity of air	kg/m-s	μ_a	1.8E-05							
	Crack length (bldg perimeter)	m	X_{crack}	40							
	Crack depth below ground	m	Z_{crack}	0.10							
	Crack radius	m	r_{crack}	1E-03							
	Soil gas flow rate into bldg	m^3/day	Q_{soil}	7.20							
	Indoor air concentrations resulting from groundwater vapor intrusion into a building are estimated using the relationships described by Johnson and Ettinger (Heuristic model for predicting the intrusion rate of contaminant vapors into buildings, 1991), which USEPA recommends for screening level calculations, as discussed in Appendix A, Section 3.3.1 of the ADEQ-approved Revised Risk Management Plan, which was used as the basis for the ADEQ Remedial Action Decision.										
	The effective diffusion term DeffT is calculated based on a silty clay soil, as discussed in Appendix A, Section 3.3.1 of the ADEQ-approved Revised Risk Management Program.										

Attachment C.11: Cancer Risk and Hazard Index Calculations for Vapor Intrusion into a Residential Building (Slab-on-Grade) from Perched Water at VP-6 (Parcel 1) Whirlpool, Fort Smith, Arkansas

							Cancer				Noncancer	
Chem Group	**Chemical**	**CASRN**	**Carc Class**	**ADAF**	**C_{gw}** (mg/L)	**$C_{building}$** (mg/m^3)	**URF** (m^3/mg)	**f_{inh}**	**Risk**		**RfC** (mg/m^3)	**HQ**
VOC	Acetone	67-64-1	ID	N	8.06E-02	1.49E-05					3.1E+01	4.6E-07
VOC	Benzene	71-43-2	A	N	1.80E-03	2.43E-06	7.8E-03		7.8E-09		3.0E-02	7.8E-05
VOC	2-Butanone	78-93-3	ID	N	1.30E-02	2.33E-06					5.0E+00	4.5E-07
VOC	Carbon Disulfide	75-15-0		N	2.70E-03	7.75E-06					7.0E-01	1.1E-05
VOC	4-Methyl-2-pentanone	108-10-1	ID	N	1.20E-03	2.60E-07					3.0E+00	8.3E-08
VOC	Methylene Chloride	75-09-2	LC	Y	2.40E-04	2.58E-07	1.0E-05	1	2.7E-12		6.0E-01	4.1E-07
VOC	Toluene	108-88-3	ID	N	2.40E-04	3.15E-07					5.0E+00	6.0E-08
							Cumulative Risk:		8E-09		**HI:**	9E-05
Note:												
f_{inh} is the fraction of the inhalation URF that USEPA identified as having a mutagenic mode of action.												
Only VOCs detected in the Annual 2016 water sample at VP-6 (Parcel 1) are shown.												
Risks were calculated assuming residential exposure to groundwater-derived vapors in indoor air for 24 hours per day and 350 days per year for 30 years.												

Attachment C.12: Soil Moisture Profile for Residential Building (Slab-on-Grade) at Soil Vapor Monitoring Point VP-7 (Parcel 2) Whirlpool, Fort Smith, Arkansas



Notes:
The soil-water profile in the vadose zone is estimated using the van Genuchten soil-water retention equation with default water retention parameters appropriate for silt clay, as discussed in Appendix A, Section 3.3.1 of the ADEQ-approved Revised Risk Management Plan, which was used as the basis for the ADEQ Remedial Action Decision.

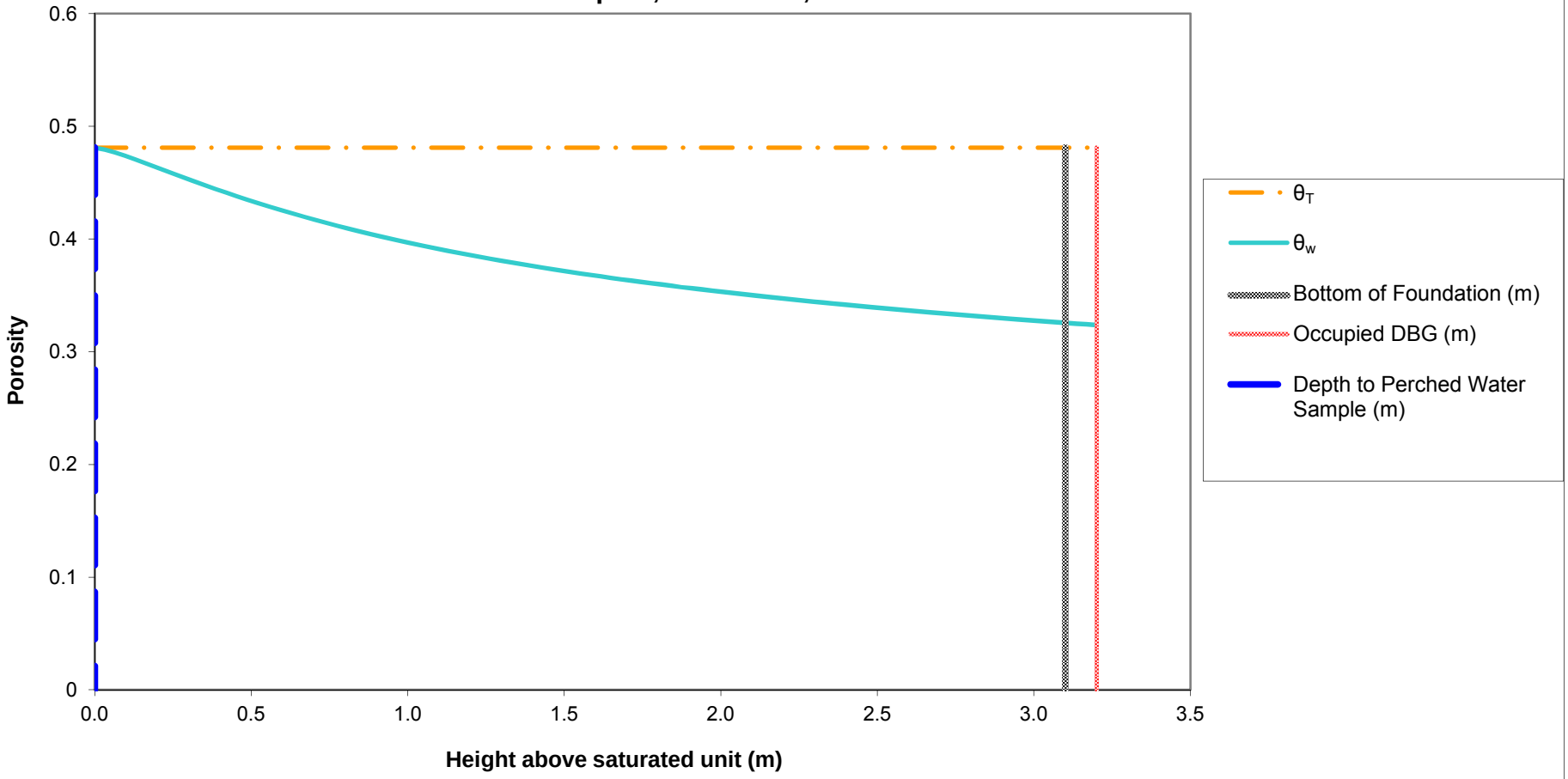
Attachment C.13: Normalized Indoor Air Concentration in a Residential Building (Slab-on-Grade) due to Vapor Intrusion from Perched Water at VP-7 (Parcel 2) Whirlpool, Fort Smith, Arkansas

Chem Group	Chemical	CASRN	D_{air} (m^2/day)	D_{water} (m^2/day)	H (unitless)	D_{crack} (m^2/day)	D_{eff}^T (m^2/day)	α_{soil}	α_{slab}	α_{∞}	C_{bldg} (L-water/m^3)
VOC	Acetone	67-64-1	1.07E+00	9.85E-05	1.14E-03	1.61E-01	2.07E-02	1.54E-01	2.73E-03	4.21E-04	4.80E-04
VOC	Benzene	71-43-2	7.60E-01	8.47E-05	1.59E-01	1.14E-01	4.01E-04	3.52E-03	2.73E-03	9.63E-06	1.53E-03
VOC	2-Butanone	78-93-3	6.98E-01	8.47E-05	2.00E-03	1.05E-01	1.04E-02	8.37E-02	2.73E-03	2.29E-04	4.57E-04
VOC	Chloromethane	74-87-3	1.09E+00	5.62E-05	3.33E-01	1.64E-01	2.12E-04	1.87E-03	2.73E-03	5.10E-06	1.70E-03
VOC	4-Methyl-2-pentanone	108-10-1	6.48E-01	6.74E-05	4.71E-03	9.74E-02	3.96E-03	3.37E-02	2.73E-03	9.21E-05	4.34E-04
Notes:	**Crack Soil and Building Characteristics**			**Crack Soil**							
	SCS Soil texture class			Sand							
	Bulk density	kg/L	ρ_b	1.66							
	Total porosity	L/L-soil	θ_T	0.375							
	Water-filled porosity	L/L-soil	θ_w	0.061							
	Air-filled porosity	L/L-soil	θ_a	0.314							
	Residual saturation	L/L-soil	θ_r	0.053							
	Hydraulic conductivity	cm/s	K	7.4E-03							
	Dynamic viscosity of water	g/cm-s	μ_w	0.01307							
	Density of water	g/cm^3	ρ_w	1.0							
	Gravitational acceleration	cm/s^2	g	980.7							
	Intrinsic permeability	cm^2	k	9.9E-08							
	Relative saturation	unitless	S_e	0.023							
	van Genuchten N	unitless	N	3.177							
	van Genuchten M	unitless	M	0.685							
	Relative air permeability	unitless	k_{rg}	0.983							
	Permeability to vapor	cm^2	k_v	9.74E-08							
	Distance from building foundation to source	m	L_{T-gw}	1.58							
	Bldg foundation thickness	m	L_{crack}	0.1							
	Bldg foundation length	m		10.00							
	Bldg foundation width	m		10.00							
	Bldg occupied height	m		2.44							
	Bldg occupied volume	m^3		244.00							
	Occupied depth below ground	m		0.0							
	Bldg area for vapor intrusion	m^2	A_B	100.0							
	Ratio of A_{crack} to A_B		η	4E-04							
	Area of cracks	m^2	A_{crack}	4E-02							
	Air exchange rate	$hour^{-1}$	ach	0.45							
	Building ventilation rate	m^3/day	Q_{bldg}	2.64E+03							
	Pressure difference between outdoors-indoors	$kg/m\text{-}s^2$	ΔP	1.0							
	Viscosity of air	kg/m-s	μ_a	1.8E-05							
	Crack length (bldg perimeter)	m	X_{crack}	40							
	Crack depth below ground	m	Z_{crack}	0.10							
	Crack radius	m	r_{crack}	1E-03							
	Soil gas flow rate into bldg	m^3/day	Q_{soil}	7.20							
	Indoor air concentrations resulting from groundwater vapor intrusion into a building are estimated using the relationships described by Johnson and Ettinger (Heuristic model for predicting the intrusion rate of contaminant vapors into buildings, 1991), which USEPA recommends for screening level calculations, as discussed in Appendix A, Section 3.3.1 of the ADEQ-approved Revised Risk Management Plan, which was used as the basis for the ADEQ Remedial Action Decision.										
	The effective diffusion term DeffT is calculated based on a silty clay soil, as discussed in Appendix A, Section 3.3.1 of the ADEQ-approved Revised Risk Management Program.										

Attachment C.14: Cancer Risk and Hazard Index Calculations for Vapor Intrusion into a Residential Building (Slab-on-Grade) from Perched Water at VP-7 (Parcel 2) Whirlpool, Fort Smith, Arkansas

							Cancer				Noncancer	
Chem Group	**Chemical**	**CASRN**	**Carc Class**	**ADAF**	**C_{gw}** (mg/L)	**$C_{building}$** (mg/m^3)	**URF** (m^3/mg)	**f_{inh}**	**Risk**		**RfC** (mg/m^3)	**HQ**
VOC	Acetone	67-64-1	ID	N	8.58E-02	4.12E-05					3.1E+01	1.3E-06
VOC	Benzene	71-43-2	A	N	9.50E-04	1.45E-06	7.8E-03		4.7E-09		3.0E-02	4.6E-05
VOC	2-Butanone	78-93-3	ID	N	8.90E-03	4.07E-06					5.0E+00	7.8E-07
VOC	Chloromethane	74-87-3	D	N	5.90E-04	1.00E-06					9.0E-02	1.1E-05
VOC	4-Methyl-2-pentanone	108-10-1	ID	N	2.00E-03	8.68E-07					3.0E+00	2.8E-07
							Cumulative Risk:		5E-09		**HI:**	6E-05
Note:												
f_{inh} is the fraction of the inhalation URF that USEPA identified as having a mutagenic mode of action.												
Only VOCs detected in the Annual 2016 water sample at VP-7 (Parcel 2) are shown.												
Risks were calculated assuming residential exposure to groundwater-derived vapors in indoor air for 24 hours per day and 350 days per year for 30 years.												

Attachment C.15: Soil Moisture Profile for Residential Building (Slab-on-Grade) at Soil Vapor Monitoring Point VP-8 (Parcel 2) Whirlpool, Fort Smith, Arkansas



Notes:
The soil-water profile in the vadose zone is estimated using the van Genuchten soil-water retention equation with default water retention parameters appropriate for silt clay, as discussed in Appendix A, Section 3.3.1 of the ADEQ-approved Revised Risk Management Plan, which was used as the basis for the ADEQ Remedial Action Decision.

Attachment C.16: Normalized Indoor Air Concentration in a Residential Building (Slab-on-Grade) due to Vapor Intrusion from Perched Water at VP-8 (Parcel 2) Whirlpool, Fort Smith, Arkansas

Chem Group	Chemical	CASRN	D_{air} (m^2/day)	D_{water} (m^2/day)	H (unitless)	D_{crack} (m^2/day)	D_{eff}^T (m^2/day)	α_{soil}	α_{slab}	α_∞	C_{bldg} (L-water/m^3)
VOC	Acetone	67-64-1	1.07E+00	9.85E-05	1.14E-03	1.71E-01	1.87E-02	7.73E-02	2.73E-03	2.11E-04	2.41E-04
VOC	Benzene	71-43-2	7.60E-01	8.47E-05	1.59E-01	1.21E-01	7.17E-04	3.20E-03	2.73E-03	8.74E-06	1.39E-03
VOC	2-Butanone	78-93-3	6.98E-01	8.47E-05	2.00E-03	1.12E-01	9.82E-03	4.21E-02	2.73E-03	1.15E-04	2.30E-04
VOC	2-Hexanone	591-78-6	7.45E-01	7.57E-05	3.23E-03	1.19E-01	6.59E-03	2.87E-02	2.73E-03	7.83E-05	2.53E-04
VOC	4-Methyl-2-pentanone	108-10-1	6.48E-01	6.74E-05	4.71E-03	1.04E-01	4.55E-03	2.00E-02	2.73E-03	5.46E-05	2.57E-04
VOC	Methylene Chloride	75-09-2	8.73E-01	1.01E-04	6.60E-02	1.39E-01	1.41E-03	6.26E-03	2.73E-03	1.71E-05	1.13E-03
VOC	Toluene	108-88-3	7.52E-01	7.43E-05	1.80E-01	1.20E-01	6.11E-04	2.73E-03	2.73E-03	7.46E-06	1.35E-03
VOC	Trichloroethene	79-01-6	6.83E-01	7.86E-05	2.88E-01	1.09E-01	4.58E-04	2.05E-03	2.73E-03	5.59E-06	1.61E-03

Notes:	Crack Soil and Building Characteristics			Crack Soil
	SCS Soil texture class			Sand
	Bulk density	kg/L	ρ_b	1.66
	Total porosity	L/L-soil	θ_T	0.375
	Water-filled porosity	L/L-soil	θ_w	0.055
	Air-filled porosity	L/L-soil	θ_a	0.320
	Residual saturation	L/L-soil	θ_r	0.053
	Hydraulic conductivity	cm/s	K	7.4E-03
	Dynamic viscosity of water	g/cm-s	μ_w	0.01307
	Density of water	g/cm^3	ρ_w	1.0
	Gravitational acceleration	cm/s^2	g	980.7
	Intrinsic permeability	cm^2	k	9.9E-08
	Relative saturation	unitless	S_e	0.005
	van Genuchten N	unitless	N	3.177
	van Genuchten M	unitless	M	0.685
	Relative air permeability	unitless	k_{rg}	0.997
	Permeability to vapor	cm^2	k_v	9.88E-08
	Distance from building foundation to source	m	L_{T-gw}	3.10
	Bldg foundation thickness	m	L_{crack}	0.1
	Bldg foundation length	m		10.00
	Bldg foundation width	m		10.00
	Bldg occupied height	m		2.44
	Bldg occupied volume	m^3		244.00
	Occupied depth below ground	m		0.0
	Bldg area for vapor intrusion	m^2	A_B	100.0
	Ratio of A_{crack} to A_B		η	4E-04
	Area of cracks	m^2	A_{crack}	4E-02
	Air exchange rate	$hour^{-1}$	ach	0.45
	Building ventilation rate	m^3/day	Q_{bldg}	2.64E+03
	Pressure difference between outdoors-indoors	kg/m-s^2	ΔP	1.0
	Viscosity of air	kg/m-s	μ_a	1.8E-05
	Crack length (bldg perimeter)	m	X_{crack}	40
	Crack depth below ground	m	Z_{crack}	0.10
	Crack radius	m	r_{crack}	1E-03
	Soil gas flow rate into bldg	m^3/day	Q_{soil}	7.20

Indoor air concentrations resulting from groundwater vapor intrusion into a building are estimated using the relationships described by Johnson and Ettinger (Heuristic model for predicting the intrusion rate of contaminant vapors into buildings, 1991), which USEPA recommends for screening level calculations, as discussed in Appendix A, Section 3.3.1 of the ADEQ-approved Revised Risk Management Plan, which was used as the basis for the ADEQ Remedial Action Decision.

The effective diffusion term DeffT is calculated based on a silty clay soil, as discussed in Appendix A, Section 3.3.1 of the ADEQ-approved Revised Risk Management Program.

Attachment C.17: Cancer Risk and Hazard Index Calculations for Vapor Intrusion into a Residential Building (Slab-on-Grade) from Perched Water at VP-8 (Parcel 2) Whirlpool, Fort Smith, Arkansas

							Cancer				Noncancer	
Chem Group	**Chemical**	**CASRN**	**Carc Class**	**ADAF**	**C_{gw}** (mg/L)	**$C_{building}$** (mg/m^3)	**URF** (m^3/mg)	**f_{inh}**	**Risk**		**RfC** (mg/m^3)	**HQ**
VOC	Acetone	67-64-1	ID	N	1.13E-01	2.72E-05					3.1E+01	8.5E-07
VOC	Benzene	71-43-2	A	N	5.50E-04	7.64E-07	7.8E-03		2.4E-09		3.0E-02	2.4E-05
VOC	2-Butanone	78-93-3	ID	N	2.04E-02	4.69E-06					5.0E+00	9.0E-07
VOC	2-Hexanone	591-78-6	ID	N	3.70E-03	9.37E-07					3.0E-02	3.0E-05
VOC	4-Methyl-2-pentanone	108-10-1	ID	N	1.30E-03	3.35E-07					3.0E+00	1.1E-07
VOC	Methylene Chloride	75-09-2	LC	Y	2.60E-04	2.93E-07	1.0E-05	1	3.1E-12		6.0E-01	4.7E-07
VOC	Toluene	108-88-3	ID	N	4.30E-04	5.78E-07					5.0E+00	1.1E-07
VOC	Trichloroethene	79-01-6	HC	Y	2.40E-03	3.87E-06	4.1E-03	0.2439	8.9E-09		2.0E-03	1.9E-03
							Cumulative Risk:		1E-08		**HI:**	2E-03
Note:												
f_{inh} is the fraction of the inhalation URF that USEPA identified as having a mutagenic mode of action.												
Only VOCs detected in the Annual 2016 water sample at VP-8 (Parcel 2) are shown.												
Risks were calculated assuming residential exposure to groundwater-derived vapors in indoor air for 24 hours per day and 350 days per year for 30 years.												

Attachment C.18: Cancer Risk and Hazard Index Calculations for Vapor Intrusion into a Residential Building (Slab-on-Grade) from Soil Vapor at VP-9 (Parcel 3) Whirlpool, Fort Smith, Arkansas

							Cancer				Noncancer	
Chem Group	**Chemical**	**CASRN**	**Carc Class**	**ADAF**	**C_{sv} (mg/m^3)**	**$C_{building}$ (mg/m^3)**	**URF (m^3/mg)**	**f_{inh}**	**Risk**		**RfC (mg/m^3)**	**HQ**
VOC	1,1-Dichloroethene	75-35-4	C	N	5.90E-04	1.77E-05					2.0E-01	8.5E-05
VOC	cis-1,2-Dichloroethene	156-59-2	ID	N	6.80E-04	2.04E-05						
VOC	Tetrachloroethene	127-18-4	LC	N	5.00E-04	1.50E-05	2.6E-04		1.6E-09		4.0E-02	3.6E-04
VOC	Trichloroethene	79-01-6	HC	Y	4.64E-01	1.39E-02	4.1E-03	0.244	3.2E-05		2.0E-03	6.7E+00
VOC	Vinyl Chloride	75-01-4	A	N	5.80E-04	1.74E-05	4.4E-03		1.1E-07		1.0E-01	1.7E-04
								Cumulative Risk:	3E-05		**HI:**	**7E+00**

Note:

f_{inh} is the fraction of the inhalation toxicity value that USEPA identified as having a mutagenic mode of action.

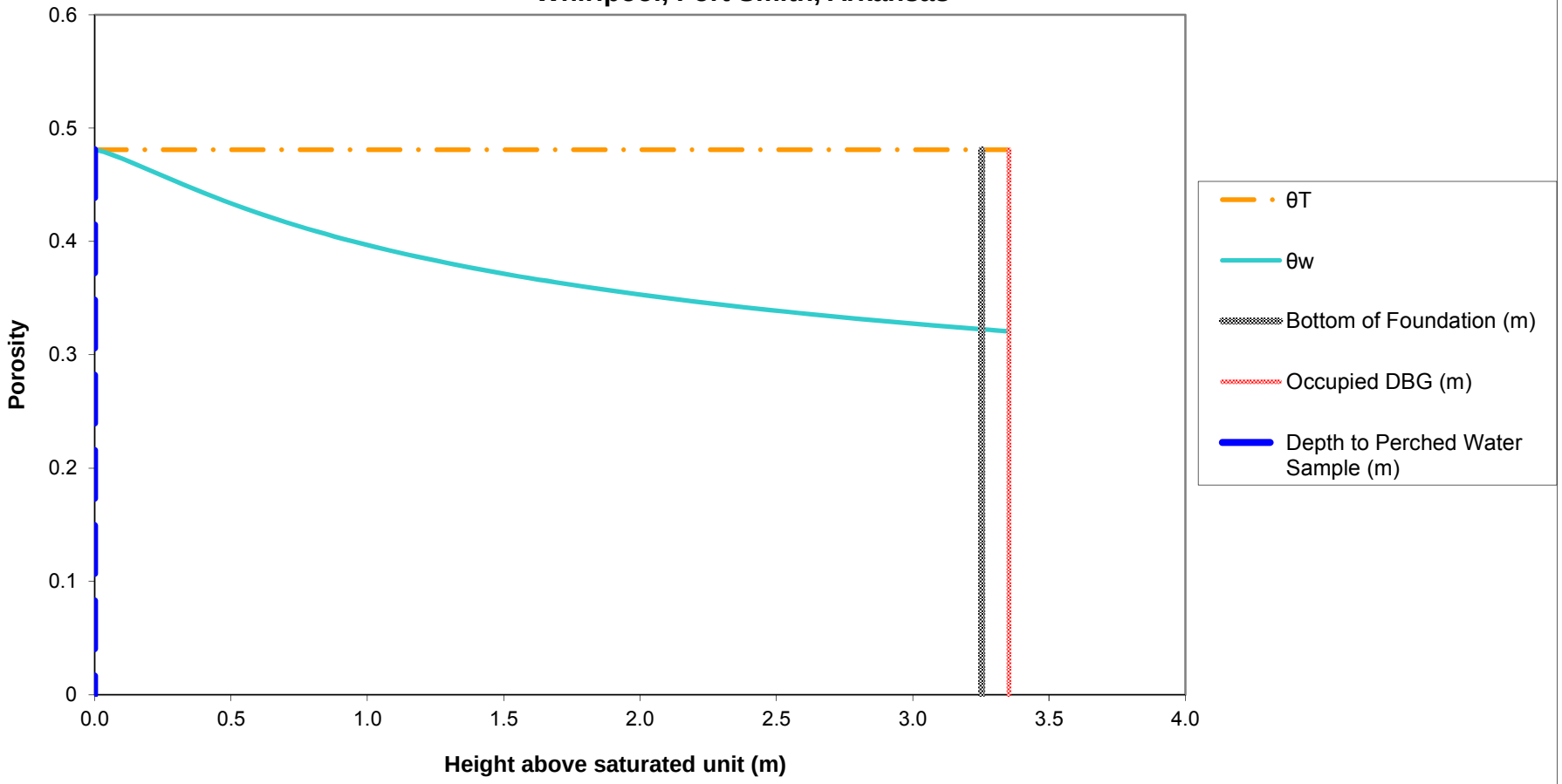
Only VOCs detected in the Annual 2016 soil vapor sample at VP-9 (Parcel 3) are shown.

Residential risks were calculated assuming residents could be exposed to soil vapor intrusion into indoor air for 24 hours per day and 350 days per year for 30 years.

Indoor air concentrations due to intrusion of soil vapor were calculated using USEPA's 95th percentile subslab soil gas attenuaion factor of 0.03 (EPA's Vapor Intrusion Database: Evaluation and Characterization of Attenuation Factors for Chlorinated Volatile Organic Compounds and Residential Buildings, 2012), as discussed in Appendix A, Section 6.8.2 of the ADEQ-approved Revised Risk Management Plan, which was used as the basis for the ADEQ Remedial Action Decision.

Cumulative cancer risk and HI estimates above Arkansas Department of Environmental Quality (ADEQ)'s risk limits (1E-4 and 1, respectively) are shaded and bold.

Attachment C.19: Soil Moisture Profile for Residential Building (Slab-on-Grade) at Soil Vapor Monitoring Point VP-10 (Parcel 3) Whirlpool, Fort Smith, Arkansas



Notes:
The soil-water profile in the vadose zone is estimated using the van Genuchten soil-water retention equation with default water retention parameters appropriate for silt clay, as discussed in Appendix A, Section 3.3.1 of the ADEQ-approved Revised Risk Management Plan, which was used as the basis for the ADEQ Remedial Action Decision.

RAMBOLL ENVIRON

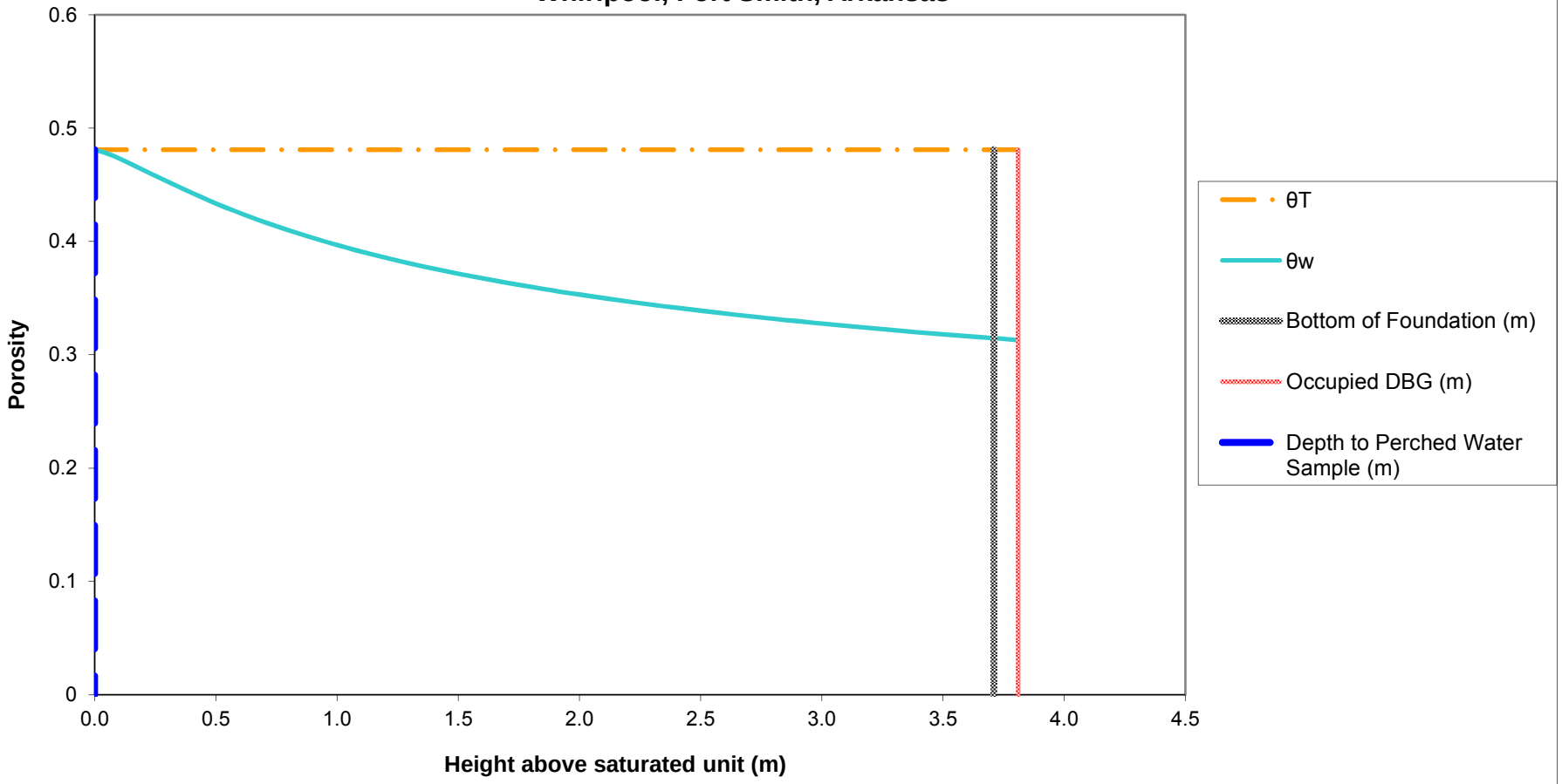
Attachment C.20: Normalized Indoor Air Concentration in a Residential Building (Slab-on-Grade) due to Vapor Intrusion from Perched Water at VP-10 (Parcel 3) Whirlpool, Fort Smith, Arkansas

Chem Group	Chemical	CASRN	D_{air} (m^2/day)	D_{water} (m^2/day)	H (unitless)	D_{crack} (m^2/day)	D_{eff}^T (m^2/day)	α_{soil}	α_{slab}	α_∞	C_{bldg} (L-water/m^3)
VOC	Benzene	71-43-2	7.60E-01	8.47E-05	1.59E-01	1.22E-01	7.54E-04	3.21E-03	2.73E-03	8.77E-06	1.39E-03
VOC	Chloroform	67-66-3	8.99E-01	8.64E-05	1.07E-01	1.44E-01	1.03E-03	4.38E-03	2.73E-03	1.20E-05	1.28E-03
VOC	1,1-Dichloroethene	75-35-4	7.78E-01	8.99E-05	8.10E-01	1.25E-01	2.87E-04	1.22E-03	2.73E-03	3.34E-06	2.71E-03
VOC	cis-1,2-Dichloroethene	156-59-2	6.36E-01	9.76E-05	1.19E-01	1.02E-01	9.03E-04	3.84E-03	2.73E-03	1.05E-05	1.24E-03
VOC	trans-1,2-Dichloroethene	156-60-5	6.11E-01	1.03E-04	2.81E-01	9.78E-02	5.51E-04	2.35E-03	2.73E-03	6.41E-06	1.81E-03
VOC	Methylene Chloride	75-09-2	8.73E-01	1.01E-04	6.60E-02	1.40E-01	1.47E-03	6.25E-03	2.73E-03	1.71E-05	1.13E-03
VOC	Toluene	108-88-3	7.52E-01	7.43E-05	1.80E-01	1.20E-01	6.43E-04	2.74E-03	2.73E-03	7.49E-06	1.35E-03
VOC	Trichloroethene	79-01-6	6.83E-01	7.86E-05	2.88E-01	1.09E-01	4.82E-04	2.06E-03	2.73E-03	5.62E-06	1.62E-03
VOC	Vinyl Chloride	75-01-4	9.16E-01	1.06E-04	9.00E-01	1.47E-01	3.16E-04	1.35E-03	2.73E-03	3.68E-06	3.31E-03
Notes:	**Crack Soil and Building Characteristics**			**Crack Soil**							
	SCS Soil texture class			Sand							
	Bulk density	kg/L	ρ_b	1.66							
	Total porosity	L/L-soil	θ_T	0.375							
	Water-filled porosity	L/L-soil	θ_w	0.055							
	Air-filled porosity	L/L-soil	θ_a	0.320							
	Residual saturation	L/L-soil	θ_r	0.053							
	Hydraulic conductivity	cm/s	**K**	7.4E-03							
	Dynamic viscosity of water	g/cm-s	μ_w	0.01307							
	Density of water	g/cm^3	ρ_w	1.0							
	Gravitational acceleration	cm/s^2	**g**	980.7							
	Intrinsic permeability	cm^2	**k**	9.9E-08							
	Relative saturation	unitless	S_e	0.005							
	van Genuchten N	unitless	**N**	3.177							
	van Genuchten M	unitless	**M**	0.685							
	Relative air permeability	unitless	k_{rg}	0.997							
	Permeability to vapor	cm^2	k_v	9.89E-08							
	Distance from building foundation to source	m	L_{T-gw}	3.25							
	Bldg foundation thickness	m	L_{crack}	0.1							
	Bldg foundation length	m		10.00							
	Bldg foundation width	m		10.00							
	Bldg occupied height	m		2.44							
	Bldg occupied volume	m^3		244.00							
	Occupied depth below ground	m		0.0							
	Bldg area for vapor intrusion	m^2	A_B	100.0							
	Ratio of A_{crack} to A_B		η	4E-04							
	Area of cracks	m^2	A_{crack}	4E-02							
	Air exchange rate	$hour^{-1}$	**ach**	0.45							
	Building ventilation rate	m^3/day	Q_{bldg}	2.64E+03							
	Pressure difference between outdoors-indoors	kg/m-s^2	ΔP	1.0							
	Viscosity of air	kg/m-s	μ_a	1.8E-05							
	Crack length (bldg perimeter)	m	X_{crack}	40							
	Crack depth below ground	m	Z_{crack}	0.10							
	Crack radius	m	r_{crack}	1E-03							
	Soil gas flow rate into bldg	m^3/day	Q_{soil}	7.20							
	Indoor air concentrations resulting from groundwater vapor intrusion into a building are estimated using the relationships described by Johnson and Ettinger (Heuristic model for predicting the intrusion rate of contaminant vapors into buildings, 1991), which USEPA recommends for screening level calculations, as discussed in Appendix A, Section 3.3.1 of the ADEQ-approved Revised Risk Management Plan, which was used as the basis for the ADEQ Remedial Action Decision.										
	The effective diffusion term DeffT is calculated based on a silty clay soil, as discussed in Appendix A, Section 3.3.1 of the ADEQ-approved Revised Risk Management Program.										

Attachment C.21: Cancer Risk and Hazard Index Calculations for Vapor Intrusion into a Residential Building (Slab-on-Grade) from Perched Water at VP-10 (Parcel 3) Whirlpool, Fort Smith, Arkansas

							Cancer				Noncancer	
Chem Group	**Chemical**	**CASRN**	**Carc Class**	**ADAF**	**C_{gw}** (mg/L)	**$C_{building}$** (mg/m^3)	**URF** (m^3/mg)	**f_{inh}**	**Risk**		**RfC** (mg/m^3)	**HQ**
VOC	Benzene	71-43-2	A	N	1.80E-04	2.51E-07	7.8E-03		8.0E-10		3.0E-02	8.0E-06
VOC	Chloroform	67-66-3	B2	N	7.00E-04	8.99E-07	2.3E-02		8.5E-09		5.0E-02	1.7E-05
VOC	1,1-Dichloroethene	75-35-4	C	N	1.60E-03	4.33E-06					2.0E-01	2.1E-05
VOC	cis-1,2-Dichloroethene	156-59-2	ID	N	1.60E-02	1.99E-05						
VOC	trans-1,2-Dichloroethene	156-60-5	ID	N	2.70E-04	4.87E-07						
VOC	Methylene Chloride	75-09-2	LC	Y	3.50E-04	3.95E-07	1.0E-05	1	4.1E-12		6.0E-01	6.3E-07
VOC	Toluene	108-88-3	ID	N	4.20E-04	5.67E-07					5.0E+00	1.1E-07
VOC	Trichloroethene	79-01-6	HC	Y	2.78E-01	4.50E-04	4.1E-03	0.2439	1.0E-06		2.0E-03	2.2E-01
VOC	Vinyl Chloride	75-01-4	A	N	3.90E-04	1.29E-06	4.4E-03		8.0E-09		1.0E-01	1.2E-05
							Cumulative Risk:		1E-06		**HI:**	2E-01
Note:												
f_{inh} is the fraction of the inhalation URF that USEPA identified as having a mutagenic mode of action.												
Only VOCs detected in the Annual 2016 water sample at VP-10 (Parcel 3) are shown.												
Risks were calculated assuming residential exposure to groundwater-derived vapors in indoor air for 24 hours per day and 350 days per year for 30 years.												

Attachment C.22: Soil Moisture Profile for Residential Building (Slab-on-Grade) at Soil Vapor Monitoring Point VP-12 (Parcel 4) Whirlpool, Fort Smith, Arkansas



Notes:
The soil-water profile in the vadose zone is estimated using the van Genuchten soil-water retention equation with default water retention parameters appropriate for silt clay, as discussed in Appendix A, Section 3.3.1 of the ADEQ-approved Revised Risk Management Plan, which was used as the basis for the ADEQ Remedial Action Decision.

RAMBOLL ENVIRON

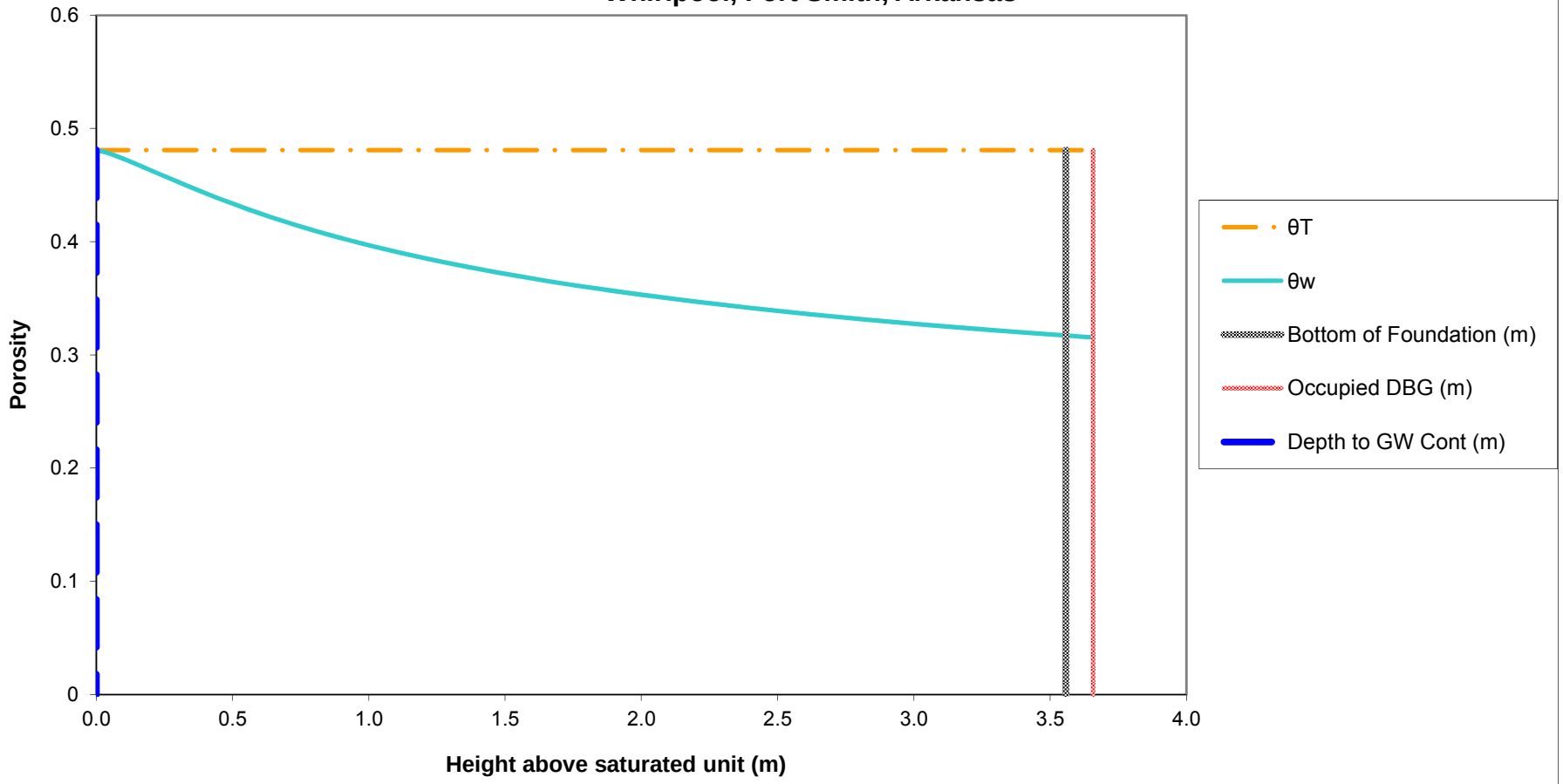
Attachment C.23: Normalized Indoor Air Concentration in a Residential Building (Slab-on-Grade) due to Vapor Intrusion from Perched Water at VP-12 (Parcel 4) Whirlpool, Fort Smith, Arkansas

Chem Group	Chemical	CASRN	D_{air} (m^2/day)	D_{water} (m^2/day)	H (unitless)	D_{crack} (m^2/day)	D_{eff}^T (m^2/day)	α_{soil}	α_{slab}	α_∞	C_{bldg} (L-water/m^3)
VOC	Acetone	67-64-1	1.07E+00	9.85E-05	1.14E-03	1.72E-01	1.87E-02	6.55E-02	2.73E-03	1.79E-04	2.04E-04
VOC	Benzene	71-43-2	7.60E-01	8.47E-05	1.59E-01	1.22E-01	8.46E-04	3.16E-03	2.73E-03	8.62E-06	1.37E-03
VOC	Chloroform	67-66-3	8.99E-01	8.64E-05	1.07E-01	1.44E-01	1.15E-03	4.29E-03	2.73E-03	1.17E-05	1.26E-03
VOC	Methylene Chloride	75-09-2	8.73E-01	1.01E-04	6.60E-02	1.40E-01	1.64E-03	6.10E-03	2.73E-03	1.67E-05	1.10E-03
VOC	Trichloroethene	79-01-6	6.83E-01	7.86E-05	2.88E-01	1.10E-01	5.43E-04	2.03E-03	2.73E-03	5.54E-06	1.60E-03
Notes:	**Crack Soil and Building Characteristics**			**Crack Soil**							
	SCS Soil texture class			Sand							
	Bulk density	kg/L	ρ_b	1.66							
	Total porosity	L/L-soil	θ_T	0.375							
	Water-filled porosity	L/L-soil	θ_w	0.054							
	Air-filled porosity	L/L-soil	θ_a	0.321							
	Residual saturation	L/L-soil	θ_r	0.053							
	Hydraulic conductivity	cm/s	K	7.4E-03							
	Dynamic viscosity of water	g/cm-s	μ_w	0.01307							
	Density of water	g/cm^3	ρ_w	1.0							
	Gravitational acceleration	cm/s^2	g	980.7							
	Intrinsic permeability	cm^2	k	9.9E-08							
	Relative saturation	unitless	S_e	0.004							
	van Genuchten N	unitless	N	3.177							
	van Genuchten M	unitless	M	0.685							
	Relative air permeability	unitless	k_{rg}	0.998							
	Permeability to vapor	cm^2	k_v	9.89E-08							
	Distance from building foundation to source	m	L_{T-gw}	3.71							
	Bldg foundation thickness	m	L_{crack}	0.1							
	Bldg foundation length	m		10.00							
	Bldg foundation width	m		10.00							
	Bldg occupied height	m		2.44							
	Bldg occupied volume	m^3		244.00							
	Occupied depth below ground	m		0.0							
	Bldg area for vapor intrusion	m^2	A_B	100.0							
	Ratio of A_{crack} to A_B		η	4E-04							
	Area of cracks	m^2	A_{crack}	4E-02							
	Air exchange rate	$hour^{-1}$	ach	0.45							
	Building ventilation rate	m^3/day	Q_{bldg}	2.64E+03							
	Pressure difference between outdoors-indoors	$kg/m\text{-}s^2$	ΔP	1.0							
	Viscosity of air	kg/m-s	μ_a	1.8E-05							
	Crack length (bldg perimeter)	m	X_{crack}	40							
	Crack depth below ground	m	Z_{crack}	0.10							
	Crack radius	m	r_{crack}	1E-03							
	Soil gas flow rate into bldg	m^3/day	Q_{soil}	7.20							
	Indoor air concentrations resulting from groundwater vapor intrusion into a building are estimated using the relationships described by Johnson and Ettinger (Heuristic model for predicting the intrusion rate of contaminant vapors into buildings, 1991), which USEPA recommends for screening level calculations, as discussed in Appendix A, Section 3.3.1 of the ADEQ-approved Revised Risk Management Plan, which was used as the basis for the ADEQ Remedial Action Decision.										
	The effective diffusion term DeffT is calculated based on a silty clay soil, as discussed in Appendix A, Section 3.3.1 of the ADEQ-approved Revised Risk Management Program.										

Attachment C.24: Cancer Risk and Hazard Index Calculations for Vapor Intrusion into a Residential Building (Slab-on-Grade) from Perched Water at VP-12 (Parcel 4) Whirlpool, Fort Smith, Arkansas

							Cancer				Noncancer	
Chem Group	**Chemical**	**CASRN**	**Carc Class**	**ADAF**	**C_{gw}** (mg/L)	**$C_{building}$** (mg/m^3)	**URF** (m^3/mg)	**f_{inh}**	**Risk**		**RfC** (mg/m^3)	**HQ**
VOC	Acetone	67-64-1	ID	N	2.70E-03	5.51E-07					3.1E+01	1.7E-08
VOC	Benzene	71-43-2	A	N	1.30E-04	1.78E-07	7.8E-03		5.7E-10		3.0E-02	5.7E-06
VOC	Chloroform	67-66-3	B2	N	2.30E-04	2.90E-07	2.3E-02		2.7E-09		5.0E-02	5.6E-06
VOC	Methylene Chloride	75-09-2	LC	Y	3.30E-04	3.63E-07	1.0E-05	1	3.8E-12		6.0E-01	5.8E-07
VOC	Trichloroethene	79-01-6	HC	Y	5.50E-04	8.79E-07	4.1E-03	0.2439	2.0E-09		2.0E-03	4.2E-04
							Cumulative Risk:		5E-09		**HI:**	4E-04
Note:												
f_{inh} is the fraction of the inhalation URF that USEPA identified as having a mutagenic mode of action.												
Only VOCs detected in the Annual 2016 water sample at VP-12 (Parcel 4) are shown.												
Risks were calculated assuming residential exposure to groundwater-derived vapors in indoor air for 24 hours per day and 350 days per year for 30 years.												

Attachment C.25: Soil Moisture Profile for Residential Building (Slab-on-Grade) at Groundwater Monitoring Well MW-55R (Parcel 6) Whirlpool, Fort Smith, Arkansas



Notes:
The soil-water profile in the vadose zone is estimated using the van Genuchten soil-water retention equation with default water retention parameters appropriate for silt clay, as discussed in Appendix A, Section 3.3.1 of the ADEQ-approved Revised Risk Management Plan, which was used as the basis for the ADEQ Remedial Action Decision.

RAMBOLL ENVIRON

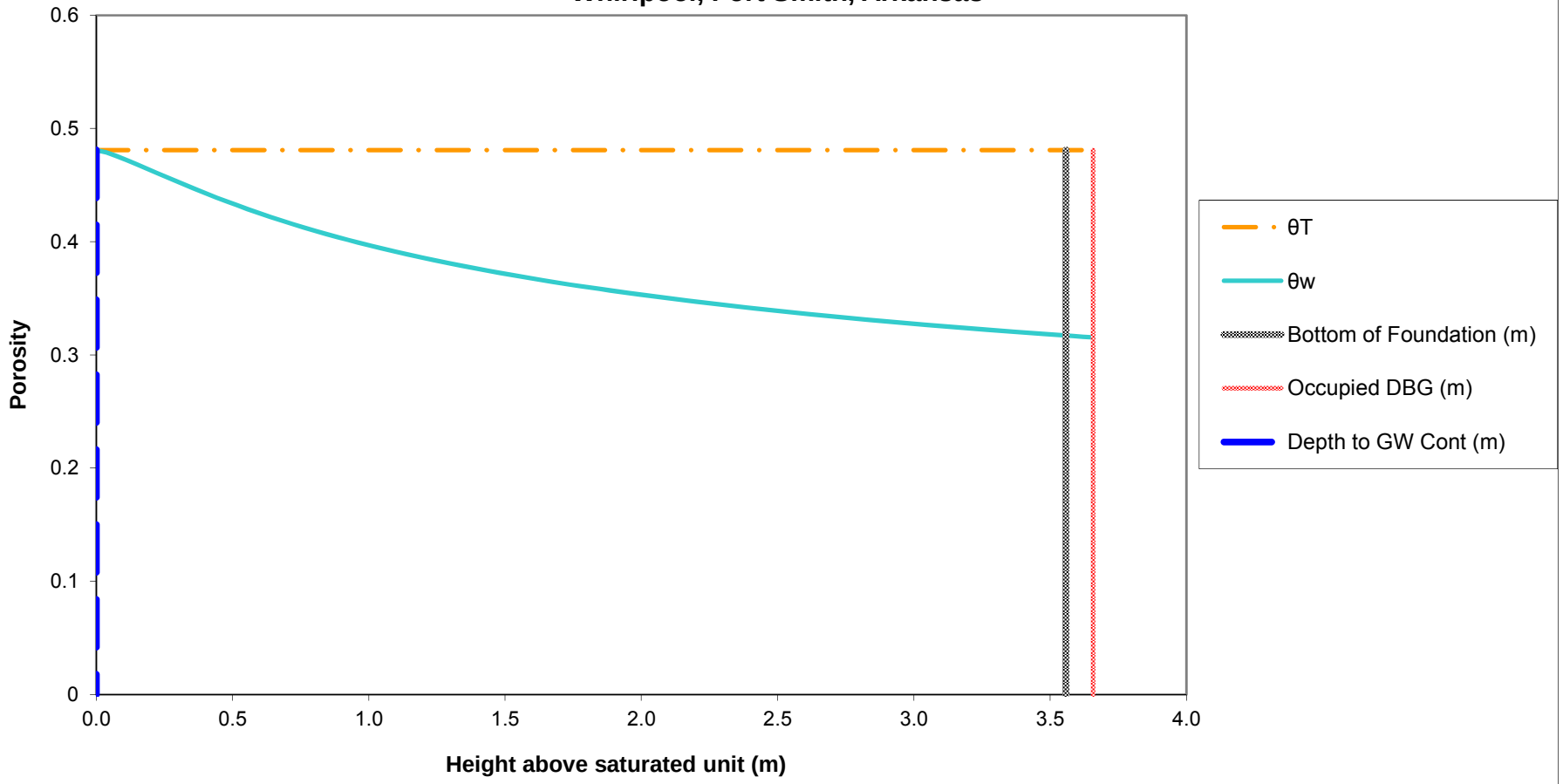
Attachment C.26: Normalized Indoor Air Concentration in a Residential Building (Slab-on-Grade) due to Vapor Intrusion from Groundwater at MW-55R (Parcel 6) Whirlpool, Fort Smith, Arkansas

Chem Group	Chemical	CASRN	D_{air} (m^2/day)	D_{water} (m^2/day)	H (unitless)	D_{crack} (m^2/day)	D_{eff}^T (m^2/day)	α_{soil}	α_{slab}	α_{∞}	C_{bldg} (L-water/m^3)
VOC	Chloroform	67-66-3	8.99E-01	8.64E-05	1.07E-01	1.44E-01	1.11E-03	4.32E-03	2.73E-03	1.18E-05	1.27E-03
VOC	Trichloroethene	79-01-6	6.83E-01	7.86E-05	2.88E-01	1.10E-01	5.23E-04	2.04E-03	2.73E-03	5.57E-06	1.60E-03
Notes:	**Crack Soil and Building Characteristics**			**Crack Soil**							
	SCS Soil texture class			Sand							
	Bulk density	kg/L	ρ_b	1.66							
	Total porosity	L/L-soil	θ_T	0.375							
	Water-filled porosity	L/L-soil	θ_w	0.054							
	Air-filled porosity	L/L-soil	θ_a	0.321							
	Residual saturation	L/L-soil	θ_r	0.053							
	Hydraulic conductivity	cm/s	K	7.4E-03							
	Dynamic viscosity of water	g/cm-s	μ_w	0.01307							
	Density of water	g/cm^3	ρ_w	1.0							
	Gravitational acceleration	cm/s^2	g	980.7							
	Intrinsic permeability	cm^2	k	9.9E-08							
	Relative saturation	unitless	S_e	0.004							
	van Genuchten N	unitless	N	3.177							
	van Genuchten M	unitless	M	0.685							
	Relative air permeability	unitless	k_{rg}	0.998							
	Permeability to vapor	cm^2	k_v	9.89E-08							
	Distance from building foundation to source	m	L_{T-gw}	3.56							
	Bldg foundation thickness	m	L_{crack}	0.1							
	Bldg foundation length	m		10.00							
	Bldg foundation width	m		10.00							
	Bldg occupied height	m		2.44							
	Bldg occupied volume	m^3		244.00							
	Occupied depth below ground	m		0.0							
	Bldg area for vapor intrusion	m^2	A_B	100.0							
	Ratio of A_{crack} to A_B		η	4E-04							
	Area of cracks	m^2	A_{crack}	4E-02							
	Air exchange rate	$hour^{-1}$	ach	0.45							
	Building ventilation rate	m^3/day	Q_{bldg}	2.64E+03							
	Pressure difference between outdoors-indoors	$kg/m\text{-}s^2$	ΔP	1.0							
	Viscosity of air	kg/m-s	μ_a	1.8E-05							
	Crack length (bldg perimeter)	m	X_{crack}	40							
	Crack depth below ground	m	Z_{crack}	0.10							
	Crack radius	m	r_{crack}	1E-03							
	Soil gas flow rate into bldg	m^3/day	Q_{soil}	7.20							
	Indoor air concentrations resulting from groundwater vapor intrusion into a building are estimated using the relationships described by Johnson and Ettinger (Heuristic model for predicting the intrusion rate of contaminant vapors into buildings, 1991), which USEPA recommends for screening level calculations, as discussed in Appendix A, Section 3.3.1 of the ADEQ-approved Revised Risk Management Plan, which was used as the basis for the ADEQ Remedial Action Decision.										
	The effective diffusion term DeffT is calculated based on a silty clay soil, as discussed in Appendix A, Section 3.3.1 of the ADEQ-approved Revised Risk Management Program.										

Attachment C.27: Cancer Risk and Hazard Index Calculations for Vapor Intrusion into a Residential Building (Slab-on-Grade) from Groundwater at MW-55R (Parcel 6) Whirlpool, Fort Smith, Arkansas

							Cancer				Noncancer	
Chem Group	**Chemical**	**CASRN**	**Carc Class**	**ADAF**	**C_{gw}** (mg/L)	**$C_{building}$** (mg/m^3)	**URF** (m^3/mg)	**f_{inh}**	**Risk**		**RfC** (mg/m^3)	**HQ**
VOC	Chloroform	67-66-3	B2	N	2.20E-04	2.79E-07	2.3E-02		2.6E-09		5.0E-02	5.4E-06
VOC	Trichloroethene	79-01-6	HC	Y	3.10E-03	4.97E-06	4.1E-03	0.2439	1.2E-08		2.0E-03	2.4E-03
							Cumulative Risk:		1E-08		**HI:**	2E-03
Note:												
f_{inh} is the fraction of the inhalation URF that USEPA identified as having a mutagenic mode of action.												
Only VOCs detected in the Annual 2016 groundwater sample at MW-55R (Parcel 6) are shown.												
Risks were calculated assuming residential exposure to groundwater-derived vapors in indoor air for 24 hours per day and 350 days per year for 30 years.												

Attachment C.28: Soil Moisture Profile for Residential Building (Slab-on-Grade) at Shallow Groundwater Monitoring Well MW-178 (Parcel 5) Whirlpool, Fort Smith, Arkansas



Notes:
The soil-water profile in the vadose zone is estimated using the van Genuchten soil-water retention equation with default water retention parameters appropriate for silt clay, as discussed in Appendix A, Section 3.3.1 of the ADEQ-approved Revised Risk Management Plan, which was used as the basis for the ADEQ Remedial Action Decision.

RAMBOLL ENVIRON

Attachment C.29: Normalized Indoor Air Concentration in a Residential Building (Slab-on-Grade) due to Vapor Intrusion from Shallow Groundwater at MW-178 (Parcel 5) Whirlpool, Fort Smith, Arkansas

Chem Group	Chemical	CASRN	D_{air} (m^2/day)	D_{water} (m^2/day)	H (unitless)	D_{crack} (m^2/day)	D_{eff}^T (m^2/day)	α_{soil}	α_{slab}	α_∞	C_{bldg} (L-water/m^3)
VOC	1,1-Dichloroethene	75-35-4	7.78E-01	8.99E-05	8.10E-01	1.25E-01	3.12E-04	1.22E-03	2.73E-03	3.32E-06	2.69E-03
VOC	cis-1,2-Dichloroethene	156-59-2	6.36E-01	9.76E-05	1.19E-01	1.02E-01	9.72E-04	3.78E-03	2.73E-03	1.03E-05	1.22E-03
VOC	Trichloroethene	79-01-6	6.83E-01	7.86E-05	2.88E-01	1.10E-01	5.23E-04	2.04E-03	2.73E-03	5.57E-06	1.60E-03

Notes:	Crack Soil and Building Characteristics			Crack Soil
	SCS Soil texture class			Sand
	Bulk density	kg/L	ρ_b	1.66
	Total porosity	L/L-soil	θ_T	0.375
	Water-filled porosity	L/L-soil	θ_w	0.054
	Air-filled porosity	L/L-soil	θ_a	0.321
	Residual saturation	L/L-soil	θ_r	0.053
	Hydraulic conductivity	cm/s	K	7.4E-03
	Dynamic viscosity of water	g/cm-s	μ_w	0.01307
	Density of water	g/cm^3	ρ_w	1.0
	Gravitational acceleration	cm/s^2	g	980.7
	Intrinsic permeability	cm^2	k	9.9E-08
	Relative saturation	unitless	S_e	0.004
	van Genuchten N	unitless	N	3.177
	van Genuchten M	unitless	M	0.685
	Relative air permeability	unitless	k_{rg}	0.998
	Permeability to vapor	cm^2	k_v	9.89E-08
	Distance from building foundation to source	m	L_{T-gw}	3.56
	Bldg foundation thickness	m	L_{crack}	0.1
	Bldg foundation length	m		10.00
	Bldg foundation width	m		10.00
	Bldg occupied height	m		2.44
	Bldg occupied volume	m^3		244.00
	Occupied depth below ground	m		0.0
	Bldg area for vapor intrusion	m^2	A_B	100.0
	Ratio of A_{crack} to A_B		η	4E-04
	Area of cracks	m^2	A_{crack}	4E-02
	Air exchange rate	$hour^{-1}$	ach	0.45
	Building ventilation rate	m^3/day	Q_{bldg}	2.64E+03
	Pressure difference between outdoors-indoors	$kg/m\text{-}s^2$	ΔP	1.0
	Viscosity of air	kg/m-s	μ_a	1.8E-05
	Crack length (bldg perimeter)	m	X_{crack}	40
	Crack depth below ground	m	Z_{crack}	0.10
	Crack radius	m	r_{crack}	1E-03
	Soil gas flow rate into bldg	m^3/day	Q_{soil}	7.20

Indoor air concentrations resulting from groundwater vapor intrusion into a building are estimated using the relationships described by Johnson and Ettinger (Heuristic model for predicting the intrusion rate of contaminant vapors into buildings, 1991), which USEPA recommends for screening level calculations, as discussed in Appendix A, Section 3.3.1 of the ADEQ-approved Revised Risk Management Plan, which was used as the basis for the ADEQ Remedial Action Decision.

The effective diffusion term DeffT is calculated based on a silty clay soil, as discussed in Appendix A, Section 3.3.1 of the ADEQ-approved Revised Risk Management Program.

Attachment C.30: Cancer Risk and Hazard Index Calculations for Vapor Intrusion into a Residential Building (Slab-on-Grade) from Shallow Groundwater at MW-178 (Parcel 5) Whirlpool, Fort Smith, Arkansas

							Cancer				Noncancer	
Chem Group	**Chemical**	**CASRN**	**Carc Class**	**ADAF**	**C_{gw}** (mg/L)	**$C_{building}$** (mg/m^3)	**URF** (m^3/mg)	**f_{inh}**	**Risk**		**RfC** (mg/m^3)	**HQ**
VOC	1,1-Dichloroethene	75-35-4	C	N	2.10E-04	5.65E-07					2.0E-01	2.7E-06
VOC	cis-1,2-Dichloroethene	156-59-2	ID	N	1.50E-04	1.84E-07						
VOC	Trichloroethene	79-01-6	HC	Y	3.20E-03	5.13E-06	4.1E-03	0.2439	1.2E-08		2.0E-03	2.5E-03
							Cumulative Risk:		1E-08		**HI:**	2E-03
Note:												
f_{inh} is the fraction of the inhalation URF that USEPA identified as having a mutagenic mode of action.												
Only VOCs detected in the Annual 2016 groundwater sample at MW-178 (Parcel 5) are shown.												
Risks were calculated assuming residential exposure to groundwater-derived vapors in indoor air for 24 hours per day and 350 days per year for 30 years.												

Appendix C

Laboratory Analytical Data

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

November 28, 2016

Tamara Gleason
Ramboll Environ
250 Monroe Ave. NW
Ste 400
Grand Rapids, MI 49503

RE: Project: FORT SMITH, AR
Pace Project No.: 60231721

Dear Tamara Gleason:
Enclosed are the analytical results for sample(s) received by the laboratory on November 08, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Colleen Clyne
colleen.clyne@pacelabs.com
Project Manager

Enclosures

cc: Johanna Pavlowsky, Ramboll Environ

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

CERTIFICATIONS

Project: FORT SMITH, AR
Pace Project No.: 60231721

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219
WY STR Certification #: 2456.01
Arkansas Certification #: 15-016-0
Illinois Certification #: 003097
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407
Utah Certification #: KS00021
Kansas Field Laboratory Accreditation: # E-92587
Missouri Certification: 10070

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

SAMPLE SUMMARY

Project: FORT SMITH, AR
Pace Project No.: 60231721

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60231721001	**MW-68-201611**	Water	11/07/16 14:00	11/08/16 08:45
60231721002	**MW-63R-201611**	Water	11/07/16 15:15	11/08/16 08:45
60231721003	**MW-55R-201611**	Water	11/07/16 15:03	11/08/16 08:45
60231721004	**MW-39R-201611**	Water	11/07/16 16:18	11/08/16 08:45
60231721005	**MW-40R-201611**	Water	11/07/16 16:35	11/08/16 08:45
60231721006	**MW-62R-201611**	Water	11/07/16 13:15	11/08/16 08:45
60231721007	**MW-50R-201611**	Water	11/07/16 16:45	11/08/16 08:45
60231721008	**TB-01-201611**	Water	11/07/16 13:15	11/08/16 08:45

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

SAMPLE ANALYTE COUNT

Project: FORT SMITH, AR
Pace Project No.: 60231721

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60231721001	**MW-68-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231721002	**MW-63R-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231721003	**MW-55R-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231721004	**MW-39R-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231721005	**MW-40R-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231721006	**MW-62R-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231721007	**MW-50R-201611**	EPA 6010	NDJ	1	PASI-K
		EPA 5030B/8260	PGH	38	PASI-K
		SM 3500-Fe B#4	TJG	1	PASI-K
		SM 4500-S-2 D	HMM	1	PASI-K
		EPA 300.0	OL	1	PASI-K
		EPA 353.2	LDB	3	PASI-K
		SM 5310C	JMC1	1	PASI-K
60231721008	**TB-01-201611**	EPA 5030B/8260	PGH	38	PASI-K

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231721

Method: **EPA 6010**
Description: 6010 MET ICP
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
1 sample was analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231721

Method: **EPA 5030B/8260**
Description: 8260 MSV
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
8 samples were analyzed for EPA 5030B/8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231721

Method: **SM 3500-Fe B#4**
Description: Iron, Ferric (Calculation)
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
1 sample was analyzed for SM 3500-Fe B#4. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231721

Method: **SM 4500-S-2 D**
Description: 4500S2D Sulfide, Total
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
1 sample was analyzed for SM 4500-S-2 D. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231721

Method: **EPA 300.0**
Description: 300.0 IC Anions 28 Days
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
1 sample was analyzed for EPA 300.0. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231721

Method: **EPA 353.2**
Description: 353.2 Nitrogen, NO2/NO3 unpres
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
1 sample was analyzed for EPA 353.2. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231721

Method: **SM 5310C**
Description: 5310C TOC
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
1 sample was analyzed for SM 5310C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

QC Batch: 454642

B: Analyte was detected in the associated method blank.
- BLANK for HBN 454642 [WETA/423 (Lab ID: 1861911)
  - Total Organic Carbon

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 454642

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60231927001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- MS (Lab ID: 1861913)
  - Total Organic Carbon

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231721

Sample: MW-68-201611 **Lab ID: 60231721001** Collected: 11/07/16 14:00 Received: 11/08/16 08:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/14/16 02:19	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/14/16 02:19	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 02:19	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/14/16 02:19	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/14/16 02:19	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 02:19	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 02:19	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 02:19	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 02:19	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 02:19	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/14/16 02:19	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/14/16 02:19	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 02:19	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 02:19	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 02:19	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 02:19	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/14/16 02:19	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 02:19	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 02:19	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 02:19	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 02:19	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 02:19	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 02:19	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 02:19	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 02:19	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 02:19	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 02:19	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 02:19	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 02:19	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 02:19	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 02:19	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/14/16 02:19	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/14/16 02:19	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 02:19	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	77-130		1		11/14/16 02:19	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	81-127		1		11/14/16 02:19	17060-07-0	
Toluene-d8 (S)	98	%	80-120		1		11/14/16 02:19	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/14/16 02:19		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231721

Sample: MW-63R-201611 **Lab ID: 60231721002** Collected: 11/07/16 15:15 Received: 11/08/16 08:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/14/16 02:33	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/14/16 02:33	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 02:33	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/14/16 02:33	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/14/16 02:33	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 02:33	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 02:33	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 02:33	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 02:33	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 02:33	75-00-3	
Chloroform	**0.21J**	ug/L	1.0	0.14	1		11/14/16 02:33	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/14/16 02:33	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 02:33	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 02:33	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 02:33	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 02:33	75-35-4	
cis-1,2-Dichloroethene	**0.21J**	ug/L	1.0	0.080	1		11/14/16 02:33	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 02:33	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 02:33	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 02:33	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 02:33	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 02:33	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 02:33	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 02:33	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 02:33	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 02:33	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 02:33	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 02:33	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 02:33	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 02:33	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 02:33	79-00-5	
Trichloroethene	**2.9**	ug/L	1.0	0.17	1		11/14/16 02:33	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/14/16 02:33	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 02:33	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	96	%	77-130		1		11/14/16 02:33	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	81-127		1		11/14/16 02:33	17060-07-0	
Toluene-d8 (S)	103	%	80-120		1		11/14/16 02:33	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/14/16 02:33		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231721

Sample: MW-55R-201611 **Lab ID: 60231721003** Collected: 11/07/16 15:03 Received: 11/08/16 08:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/14/16 02:47	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/14/16 02:47	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 02:47	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/14/16 02:47	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/14/16 02:47	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 02:47	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 02:47	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 02:47	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 02:47	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 02:47	75-00-3	
Chloroform	**0.22J**	ug/L	1.0	0.14	1		11/14/16 02:47	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/14/16 02:47	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 02:47	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 02:47	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 02:47	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 02:47	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/14/16 02:47	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 02:47	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 02:47	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 02:47	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 02:47	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 02:47	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 02:47	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 02:47	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 02:47	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 02:47	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 02:47	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 02:47	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 02:47	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 02:47	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 02:47	79-00-5	
Trichloroethene	**3.1**	ug/L	1.0	0.17	1		11/14/16 02:47	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/14/16 02:47	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 02:47	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	102	%	77-130		1		11/14/16 02:47	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	81-127		1		11/14/16 02:47	17060-07-0	
Toluene-d8 (S)	97	%	80-120		1		11/14/16 02:47	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/14/16 02:47		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231721

Sample: MW-39R-201611 **Lab ID: 60231721004** Collected: 11/07/16 16:18 Received: 11/08/16 08:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/14/16 03:02	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/14/16 03:02	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 03:02	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/14/16 03:02	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/14/16 03:02	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 03:02	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 03:02	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 03:02	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 03:02	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 03:02	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/14/16 03:02	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/14/16 03:02	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 03:02	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 03:02	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 03:02	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 03:02	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/14/16 03:02	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 03:02	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 03:02	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 03:02	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 03:02	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 03:02	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 03:02	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 03:02	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 03:02	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 03:02	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 03:02	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 03:02	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 03:02	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 03:02	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 03:02	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/14/16 03:02	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/14/16 03:02	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 03:02	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	99	%	77-130		1		11/14/16 03:02	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	81-127		1		11/14/16 03:02	17060-07-0	
Toluene-d8 (S)	100	%	80-120		1		11/14/16 03:02	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/14/16 03:02		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231721

Sample: MW-40R-201611 **Lab ID: 60231721005** Collected: 11/07/16 16:35 Received: 11/08/16 08:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/14/16 03:16	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/14/16 03:16	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 03:16	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/14/16 03:16	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/14/16 03:16	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 03:16	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 03:16	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 03:16	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 03:16	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 03:16	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/14/16 03:16	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/14/16 03:16	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 03:16	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 03:16	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 03:16	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 03:16	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/14/16 03:16	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 03:16	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 03:16	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 03:16	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 03:16	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 03:16	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 03:16	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 03:16	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 03:16	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 03:16	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 03:16	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 03:16	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 03:16	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 03:16	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 03:16	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/14/16 03:16	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/14/16 03:16	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 03:16	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	77-130		1		11/14/16 03:16	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	81-127		1		11/14/16 03:16	17060-07-0	
Toluene-d8 (S)	97	%	80-120		1		11/14/16 03:16	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/14/16 03:16		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231721

Sample: MW-62R-201611 **Lab ID: 60231721006** Collected: 11/07/16 13:15 Received: 11/08/16 08:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/14/16 03:31	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/14/16 03:31	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 03:31	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/14/16 03:31	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/14/16 03:31	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 03:31	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 03:31	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 03:31	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 03:31	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 03:31	75-00-3	
Chloroform	**0.27J**	ug/L	1.0	0.14	1		11/14/16 03:31	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/14/16 03:31	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 03:31	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 03:31	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 03:31	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 03:31	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/14/16 03:31	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 03:31	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 03:31	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 03:31	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 03:31	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 03:31	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 03:31	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 03:31	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 03:31	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 03:31	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 03:31	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 03:31	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 03:31	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 03:31	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 03:31	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/14/16 03:31	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/14/16 03:31	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 03:31	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	77-130		1		11/14/16 03:31	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	81-127		1		11/14/16 03:31	17060-07-0	
Toluene-d8 (S)	98	%	80-120		1		11/14/16 03:31	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/14/16 03:31		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231721

Sample: MW-50R-201611 **Lab ID: 60231721007** Collected: 11/07/16 16:45 Received: 11/08/16 08:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	**4840**	ug/L	50.0	8.8	1	11/11/16 11:45	11/14/16 16:31	7439-89-6	
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/14/16 03:45	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/14/16 03:45	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 03:45	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/14/16 03:45	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/14/16 03:45	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 03:45	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 03:45	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 03:45	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 03:45	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 03:45	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/14/16 03:45	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/14/16 03:45	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 03:45	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 03:45	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 03:45	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 03:45	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/14/16 03:45	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 03:45	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 03:45	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 03:45	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 03:45	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 03:45	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 03:45	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 03:45	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 03:45	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 03:45	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 03:45	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 03:45	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 03:45	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 03:45	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 03:45	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/14/16 03:45	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/14/16 03:45	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 03:45	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	103	%	77-130		1		11/14/16 03:45	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	81-127		1		11/14/16 03:45	17060-07-0	
Toluene-d8 (S)	98	%	80-120		1		11/14/16 03:45	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/14/16 03:45		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4								
Iron, Ferric	**4.7**	mg/L	0.20		1		11/15/16 00:00	7439-89-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231721

Sample: MW-50R-201611 **Lab ID: 60231721007** Collected: 11/07/16 16:45 Received: 11/08/16 08:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D								
Sulfide, Total	ND	mg/L	0.050	0.019	1		11/09/16 14:53	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	**15.1**	mg/L	1.0	0.15	1		11/16/16 14:34	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	ND	mg/L	0.10	0.012	1		11/09/16 08:58		
Nitrogen, Nitrite	**0.013J**	mg/L	0.10	0.010	1		11/09/16 08:58		
Nitrogen, NO2 plus NO3	ND	mg/L	0.10	0.012	1		11/09/16 08:58		
5310C TOC	Analytical Method: SM 5310C								
Total Organic Carbon	**0.41J**	mg/L	1.0	0.054	1		11/12/16 13:13	7440-44-0	B

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231721

Sample: TB-01-201611 **Lab ID: 60231721008** Collected: 11/07/16 13:15 Received: 11/08/16 08:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/14/16 02:04	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/14/16 02:04	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 02:04	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/14/16 02:04	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/14/16 02:04	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 02:04	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 02:04	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 02:04	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 02:04	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 02:04	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/14/16 02:04	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/14/16 02:04	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 02:04	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 02:04	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 02:04	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 02:04	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/14/16 02:04	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 02:04	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 02:04	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 02:04	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 02:04	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 02:04	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 02:04	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 02:04	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 02:04	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 02:04	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 02:04	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 02:04	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 02:04	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 02:04	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 02:04	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/14/16 02:04	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/14/16 02:04	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 02:04	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	99	%	77-130		1		11/14/16 02:04	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	81-127		1		11/14/16 02:04	17060-07-0	
Toluene-d8 (S)	100	%	80-120		1		11/14/16 02:04	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/14/16 02:04		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231721

QC Batch: 454539 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET
Associated Lab Samples: 60231721007

METHOD BLANK: 1861302 Matrix: Water
Associated Lab Samples: 60231721007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron	ug/L	ND	50.0	8.8	11/15/16 12:51	

LABORATORY CONTROL SAMPLE: 1861303

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron	ug/L	10000	10000	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1861304 1861305

Parameter	Units	60231955004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron	ug/L	5940	10000	10000	15500	15000	96	91	75-125	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1861306 1861307

Parameter	Units	60231848025 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron	ug/L	22.7J	10000	10000	9390	9720	94	97	75-125	3	20	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231721

QC Batch: 454535 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60231721001, 60231721002, 60231721003, 60231721004, 60231721005, 60231721006, 60231721007, 60231721008

METHOD BLANK: 1861274 Matrix: Water
Associated Lab Samples: 60231721001, 60231721002, 60231721003, 60231721004, 60231721005, 60231721006, 60231721007, 60231721008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	0.11	11/14/16 01:50	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.15	11/14/16 01:50	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.20	11/14/16 01:50	
1,1-Dichloroethane	ug/L	ND	1.0	0.050	11/14/16 01:50	
1,1-Dichloroethene	ug/L	ND	1.0	0.20	11/14/16 01:50	
1,2-Dichloroethane	ug/L	ND	1.0	0.12	11/14/16 01:50	
1,2-Dichloropropane	ug/L	ND	1.0	0.16	11/14/16 01:50	
2-Butanone (MEK)	ug/L	ND	10.0	0.59	11/14/16 01:50	
2-Hexanone	ug/L	ND	10.0	1.2	11/14/16 01:50	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	0.42	11/14/16 01:50	
Acetone	ug/L	ND	10.0	1.9	11/14/16 01:50	
Benzene	ug/L	ND	1.0	0.060	11/14/16 01:50	
Bromodichloromethane	ug/L	ND	1.0	0.19	11/14/16 01:50	
Bromoform	ug/L	ND	1.0	0.070	11/14/16 01:50	
Bromomethane	ug/L	ND	5.0	0.16	11/14/16 01:50	
Carbon disulfide	ug/L	ND	5.0	0.12	11/14/16 01:50	
Carbon tetrachloride	ug/L	ND	1.0	0.18	11/14/16 01:50	
Chlorobenzene	ug/L	ND	1.0	0.21	11/14/16 01:50	
Chloroethane	ug/L	ND	1.0	0.15	11/14/16 01:50	
Chloroform	ug/L	ND	1.0	0.14	11/14/16 01:50	
Chloromethane	ug/L	ND	1.0	0.080	11/14/16 01:50	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.080	11/14/16 01:50	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.14	11/14/16 01:50	
Dibromochloromethane	ug/L	ND	1.0	0.21	11/14/16 01:50	
Ethylbenzene	ug/L	ND	1.0	0.18	11/14/16 01:50	
Methylene chloride	ug/L	ND	1.0	0.15	11/14/16 01:50	
Styrene	ug/L	ND	1.0	0.12	11/14/16 01:50	
Tetrachloroethene	ug/L	ND	1.0	0.10	11/14/16 01:50	
Toluene	ug/L	ND	1.0	0.17	11/14/16 01:50	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.20	11/14/16 01:50	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.12	11/14/16 01:50	
Trichloroethene	ug/L	ND	1.0	0.17	11/14/16 01:50	
Vinyl chloride	ug/L	ND	1.0	0.13	11/14/16 01:50	
Xylene (Total)	ug/L	ND	3.0	0.42	11/14/16 01:50	
1,2-Dichloroethane-d4 (S)	%	90	81-127		11/14/16 01:50	
4-Bromofluorobenzene (S)	%	98	77-130		11/14/16 01:50	
Toluene-d8 (S)	%	98	80-120		11/14/16 01:50	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231721

LABORATORY CONTROL SAMPLE: 1861275

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	20.7	104	81-116	
1,1,2,2-Tetrachloroethane	ug/L	20	20.5	103	72-117	
1,1,2-Trichloroethane	ug/L	20	21.1	105	79-108	
1,1-Dichloroethane	ug/L	20	20.5	102	83-117	
1,1-Dichloroethene	ug/L	20	20.3	101	74-114	
1,2-Dichloroethane	ug/L	20	19.3	97	72-116	
1,2-Dichloropropane	ug/L	20	20.1	100	80-120	
2-Butanone (MEK)	ug/L	100	86.3	86	67-129	
2-Hexanone	ug/L	100	96.7	97	70-128	
4-Methyl-2-pentanone (MIBK)	ug/L	100	91.6	92	80-120	
Acetone	ug/L	100	79.7	80	56-142	
Benzene	ug/L	20	21.1	106	79-116	
Bromodichloromethane	ug/L	20	21.4	107	80-120	
Bromoform	ug/L	20	19.8	99	73-114	
Bromomethane	ug/L	20	15.6	78	49-153	
Carbon disulfide	ug/L	20	19.5	97	82-121	
Carbon tetrachloride	ug/L	20	19.5	97	80-116	
Chlorobenzene	ug/L	20	20.1	100	80-120	
Chloroethane	ug/L	20	21.4	107	67-124	
Chloroform	ug/L	20	19.8	99	79-120	
Chloromethane	ug/L	20	15.9	80	10-192	
cis-1,2-Dichloroethene	ug/L	20	19.5	97	80-120	
cis-1,3-Dichloropropene	ug/L	20	18.9	94	80-120	
Dibromochloromethane	ug/L	20	22.1	110	80-120	
Ethylbenzene	ug/L	20	19.8	99	80-120	
Methylene chloride	ug/L	20	17.3	86	80-120	
Styrene	ug/L	20	21.0	105	80-120	
Tetrachloroethene	ug/L	20	21.7	109	80-120	
Toluene	ug/L	20	22.0	110	80-120	
trans-1,2-Dichloroethene	ug/L	20	20.0	100	78-108	
trans-1,3-Dichloropropene	ug/L	20	19.2	96	85-120	
Trichloroethene	ug/L	20	19.1	96	76-114	
Vinyl chloride	ug/L	20	19.4	97	69-129	
Xylene (Total)	ug/L	60	61.3	102	80-120	
1,2-Dichloroethane-d4 (S)	%			97	81-127	
4-Bromofluorobenzene (S)	%			97	77-130	
Toluene-d8 (S)	%			104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1861276 1861277

Parameter	Units	60231721006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	21.4	21.6	107	108	70-135	1	12	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	19.7	19.6	99	98	54-136	0	15	
1,1,2-Trichloroethane	ug/L	ND	20	20	19.4	18.7	97	94	70-113	4	15	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231721

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1861276 1861277

Parameter	Units	60231721006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethane	ug/L	ND	20	20	21.6	21.1	108	106	80-122	2	13	
1,1-Dichloroethene	ug/L	ND	20	20	20.8	22.3	104	111	73-118	7	14	
1,2-Dichloroethane	ug/L	ND	20	20	19.5	19.9	98	100	54-137	2	41	
1,2-Dichloropropane	ug/L	ND	20	20	20.6	20.5	103	103	77-116	0	12	
2-Butanone (MEK)	ug/L	ND	100	100	83.1	82.4	83	82	30-127	1	18	
2-Hexanone	ug/L	ND	100	100	85.0	87.3	85	87	44-124	3	18	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	100	86.7	90.5	87	90	70-124	4	15	
Acetone	ug/L	ND	100	100	79.1	85.5	78	84	10-132	8	20	
Benzene	ug/L	ND	20	20	21.2	21.8	106	109	37-151	3	40	
Bromodichloromethane	ug/L	ND	20	20	20.9	20.6	104	103	76-118	1	11	
Bromoform	ug/L	ND	20	20	19.8	19.0	99	95	64-113	4	15	
Bromomethane	ug/L	ND	20	20	15.3	17.7	77	89	41-154	14	43	
Carbon disulfide	ug/L	ND	20	20	20.5	21.3	103	106	80-139	4	17	
Carbon tetrachloride	ug/L	ND	20	20	21.5	21.8	107	109	75-127	1	13	
Chlorobenzene	ug/L	ND	20	20	21.0	20.6	105	103	79-113	2	13	
Chloroethane	ug/L	ND	20	20	21.8	22.1	109	110	53-154	1	20	
Chloroform	ug/L	0.27J	20	20	20.1	20.4	99	101	74-115	2	12	
Chloromethane	ug/L	ND	20	20	15.3	21.6	77	108	33-169	34	72	
cis-1,2-Dichloroethene	ug/L	ND	20	20	19.3	20.6	96	103	58-139	7	40	
cis-1,3-Dichloropropene	ug/L	ND	20	20	16.0	15.8	80	79	70-120	2	14	
Dibromochloromethane	ug/L	ND	20	20	20.3	19.8	102	99	77-114	2	13	
Ethylbenzene	ug/L	ND	20	20	21.4	22.6	107	113	29-151	5	45	
Methylene chloride	ug/L	ND	20	20	18.4	19.4	92	97	76-120	5	13	
Styrene	ug/L	ND	20	20	20.3	20.9	102	105	66-127	3	15	
Tetrachloroethene	ug/L	ND	20	20	21.8	20.9	109	104	77-118	4	14	
Toluene	ug/L	ND	20	20	21.3	21.5	106	108	37-147	1	43	
trans-1,2-Dichloroethene	ug/L	ND	20	20	20.9	21.4	104	107	69-125	2	16	
trans-1,3-Dichloropropene	ug/L	ND	20	20	16.1	15.6	81	78	71-118	4	13	
Trichloroethene	ug/L	ND	20	20	20.7	20.5	104	103	71-116	1	14	
Vinyl chloride	ug/L	ND	20	20	18.8	23.1	94	116	65-142	20	22	
Xylene (Total)	ug/L	ND	60	60	64.0	63.7	107	106	27-156	0	46	
1,2-Dichloroethane-d4 (S)	%						96	99	81-127			
4-Bromofluorobenzene (S)	%						99	99	77-130			
Toluene-d8 (S)	%						101	101	80-120			
Preservation pH		1.0			1.0	1.0				0		

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231721

QC Batch: 454067
QC Batch Method: SM 4500-S-2 D
Analysis Method: SM 4500-S-2 D
Analysis Description: 4500S2D Sulfide, Total
Associated Lab Samples: 60231721007

METHOD BLANK: 1859176
Matrix: Water
Associated Lab Samples: 60231721007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide, Total	mg/L	ND	0.050	0.019	11/09/16 14:51	

LABORATORY CONTROL SAMPLE: 1859177

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	.5	0.52	104	80-120	

MATRIX SPIKE SAMPLE: 1859178

Parameter	Units	60231744004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	ND	.5	0.56	111	75-125	

SAMPLE DUPLICATE: 1859179

Parameter	Units	60231744002 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Total	mg/L	ND	ND		20	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231721

QC Batch: 455173 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 60231721007

METHOD BLANK: 1863789 Matrix: Water
Associated Lab Samples: 60231721007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfate	mg/L	ND	1.0	0.15	11/16/16 10:10	

LABORATORY CONTROL SAMPLE: 1863790

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

MATRIX SPIKE SAMPLE: 1863793

Parameter	Units	60231506002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	1100	500	1640	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1863834 1863835

Parameter	Units	60231501003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	7570	5000	5000	13000	13300	109	115	80-120	3	15	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231721

QC Batch: 454043
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Associated Lab Samples: 60231721007

METHOD BLANK: 1859059 Matrix: Water
Associated Lab Samples: 60231721007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.012	11/09/16 08:54	
Nitrogen, Nitrite	mg/L	ND	0.10	0.010	11/09/16 08:54	
Nitrogen, NO2 plus NO3	mg/L	ND	0.10	0.012	11/09/16 08:54	

LABORATORY CONTROL SAMPLE: 1859060

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.1	108	85-115	
Nitrogen, Nitrite	mg/L	1	0.96	96	90-110	
Nitrogen, NO2 plus NO3	mg/L	2	2.0	102	90-110	

MATRIX SPIKE SAMPLE: 1859061

Parameter	Units	60231670001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	13.5	10	23.9	104	85-115	
Nitrogen, Nitrite	mg/L	ND	10	10.5	103	90-110	
Nitrogen, NO2 plus NO3	mg/L	13.6	20	34.4	104	90-110	

SAMPLE DUPLICATE: 1859062

Parameter	Units	60231721007 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Nitrate	mg/L	ND	ND		20	
Nitrogen, Nitrite	mg/L	0.013J	ND		20	
Nitrogen, NO2 plus NO3	mg/L	ND	ND		20	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231721

QC Batch: 454642 Analysis Method: SM 5310C
QC Batch Method: SM 5310C Analysis Description: 5310C Total Organic Carbon
Associated Lab Samples: 60231721007

METHOD BLANK: 1861911 Matrix: Water
Associated Lab Samples: 60231721007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	0.085J	1.0	0.054	11/12/16 09:38	

LABORATORY CONTROL SAMPLE: 1861912

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	5	4.9	97	80-120	

MATRIX SPIKE SAMPLE: 1861913

Parameter	Units	60231927001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	1.4	5	4.5	62	80-120	M1

SAMPLE DUPLICATE: 1861914

Parameter	Units	60231927002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Organic Carbon	mg/L	1.4	1.4	4	25	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALIFIERS

Project: FORT SMITH, AR
Pace Project No.: 60231721

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-K	Pace Analytical Services - Kansas City

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: FORT SMITH, AR
Pace Project No.: 60231721

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60231721007	**MW-50R-201611**	EPA 3010	454539	EPA 6010	454595
60231721001	**MW-68-201611**	EPA 5030B/8260	454535		
60231721002	**MW-63R-201611**	EPA 5030B/8260	454535		
60231721003	**MW-55R-201611**	EPA 5030B/8260	454535		
60231721004	**MW-39R-201611**	EPA 5030B/8260	454535		
60231721005	**MW-40R-201611**	EPA 5030B/8260	454535		
60231721006	**MW-62R-201611**	EPA 5030B/8260	454535		
60231721007	**MW-50R-201611**	EPA 5030B/8260	454535		
60231721008	**TB-01-201611**	EPA 5030B/8260	454535		
60231721007	**MW-50R-201611**	SM 3500-Fe B#4	456110		
60231721007	**MW-50R-201611**	SM 4500-S-2 D	454067		
60231721007	**MW-50R-201611**	EPA 300.0	455173		
60231721007	**MW-50R-201611**	EPA 353.2	454043		
60231721007	**MW-50R-201611**	SM 5310C	454642		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical®
www.pacelabs.com

Sample Condition Upon Receipt

WO# : 60231721

60231721

Client Name: Environ

Courier: FedEx ☒ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☐ Client ☐ Other ☐

Tracking #: 8103 0090 9826 Pace Shipping Label Used? Yes ☐ No ☒

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

Packing Material: Bubble Wrap ☒ Bubble Bags ☐ Foam ☐ None ☐ Other ☐

Thermometer Used: CF +0.7 / CF -0.5 T-266 / T-239 **Type of Ice:** (Wet) Blue None

Cooler Temperature (°C): **As-read** 1.2 **Corr. Factor** CF +0.7 CF -0.5 **Corrected** 1.9

Date and initials of person examining contents: dhs

Temperature should be above freezing to 6°C

Chain of Custody present:	☒Yes ☐No ☐N/A	
Chain of Custody relinquished:	☒Yes ☐No ☐N/A	
Samples arrived within holding time:	☒Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☒Yes ☐No ☐N/A	NO_2 NO_3
Rush Turn Around Time requested:	☐Yes ☒No ☐N/A	
Sufficient volume:	☒Yes ☐No ☐N/A	
Correct containers used:	☒Yes ☐No ☐N/A	
Pace containers used:	☒Yes ☐No ☐N/A	
Containers intact:	☒Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☒N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☒N/A	
Sample labels match COC: Date / time / ID / analyses	☒Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: WATER	☐Yes ☐No ☒N/A	
Containers requiring pH preservation in compliance? (HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO)	☒Yes ☐No ☐N/A	
Cyanide water sample checks: ☒N/A Lead acetate strip turns dark? (Record only) Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No ☐Yes ☐No	
Trip Blank present:	☒Yes ☐No ☐N/A	one trip for two projects.
Headspace in VOA vials (>6mm):	☐Yes ☒No ☐N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☒N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☒N/A	

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

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: Colleen Clayne Date: 11/09/2016

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: of

Section A Required Client Information:

Company:	Environ
Address:	7500 College Blvd., Ste. 925
	Overland Park, KS 66210
Email To:	wstonestreet@ramboll.com
Phone: 913-553-5926	Fax:
Requested Due Date/TAT:	

Section B Required Project Information:

Report To:	Wendy Stonestreet
Copy To:	Tammy Gleason
Purchase Order No.:	NA
Project Name:	Fort Smith, AR
Project Number:	

Section C Invoice Information:

Attention:	Tammy Gleason
Company Name:	Environ
Address:	250 Monroe Ave. NW Grand Rapids
Pace Quote Reference:	Michigan, 49503
Pace Project Manager:	Colleen Clyne
Pace Profile #:	7444, line 1

REGULATORY AGENCY

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

Site Location STATE: AR

Section D Required Client Information

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

WES 68

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other NA OH+Zn Ac	Analysis Test Y/N	8260 VOCs	Sulfide	TOC	Sulfate	Nitrate, nitrite, unpres	6010-Iron	Ferric Iron calc. (send field Ferrous)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 60231721
1	MW-18R-201611	WT	G	11/7/16	1400				3				X						X						N	3(DISH)
2	MW-63R-201611	WT	G	11/7/16	1515				3				X						X						N	
3	MW-55R-201611	WT	G	11/7/16	1503				3				X						X						N	
4	MW-39R-201611	WT	G	11/7/16	1618				3				X						X						N	
5	MW-40R-201611	WT	G	11/7/16	1635				3				X						X						N	
6	MW-62R-201611	WT	G	11/7/16	1315				6				X						X						N	MS/MSD 6(DISH)
7	MW-50R-201611	WT	G	11/7/16	1645				7	X	X	X	X				X		X	X	X	X	X	X	N	3(DISH) 1(AGBS) 1(BP3S) 1(BP3N) 1(VOA)
8	TB-01-201611	WT	G	11/7/16	—				2				X						X						N	2(DISH)
9																										
10																										
11																										
12																										

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	Wendy Stonestreet/Ramboll	11/7/16	1830		11/8/16	845	1.9	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Wendy Stonestreet

SIGNATURE of SAMPLER: Wendy Stonestreet DATE Signed (MM/DD/YY): 11/7/2016

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

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

November 11, 2016

Tamara Gleason
Ramboll Environ
250 Monroe Ave. NW
Ste 400
Grand Rapids, MI 49503

RE: Project: WHIRLPOOL 4TH QTR 2016
Pace Project No.: 60231722

Dear Tamara Gleason:
Enclosed are the analytical results for sample(s) received by the laboratory on November 08, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Colleen Clyne
colleen.clyne@pacelabs.com
Project Manager

Enclosures

cc: Johanna Pavlowsky, Ramboll Environ

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

CERTIFICATIONS

Project: WHIRLPOOL 4TH QTR 2016
Pace Project No.: 60231722

Kansas Certification IDs
9608 Loiret Boulevard, Lenexa, KS 66219
WY STR Certification #: 2456.01
Arkansas Certification #: 15-016-0
Illinois Certification #: 003097
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407
Utah Certification #: KS00021
Kansas Field Laboratory Accreditation: # E-92587
Missouri Certification: 10070

Dallas Certification IDs:
400 West Bethany Dr Suite 190, Allen, TX 75013
EPA# TX00074
Florida Certification #: E871118
Texas Certification #: T104704232
Kansas Certification #: E-10388
Arkansas Certification #: 88-0647
Oklahoma Certification #: TX00074
Louisiana Certification #: 30686
Iowa Certification #: 408
Florida Certification #: E871118
Nevada Certification #: TX00074

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

SAMPLE SUMMARY

Project: WHIRLPOOL 4TH QTR 2016
Pace Project No.: 60231722

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60231722001	**MW-61R-201611**	Water	11/07/16 15:57	11/08/16 08:45
60231722002	**MW-189-201611**	Water	11/07/16 16:55	11/08/16 08:45
60231722003	**MW-186-201611**	Water	11/07/16 14:10	11/08/16 08:45
60231722004	**MW-194-201611**	Water	11/07/16 15:40	11/08/16 08:45

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

SAMPLE ANALYTE COUNT

Project: WHIRLPOOL 4TH QTR 2016
Pace Project No.: 60231722

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60231722001	**MW-61R-201611**	EPA 6010	NDJ	2	PASI-K
		EPA 5030B/8260	PGH	38	PASI-K
		SM 2320B	HMM	3	PASI-K
		SM 4500-S-2 D	HMM	1	PASI-K
		EPA 300.0	OL	3	PASI-K
		EPA 350.1	LDB	1	PASI-K
		SM 5310C	JMC1	1	PASI-K
		SM 5310C	JMC1	1	PASI-K
		SM 4500-P E	AR1	1	PASI-D
60231722002	**MW-189-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231722003	**MW-186-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231722004	**MW-194-201611**	EPA 5030B/8260	PGH	38	PASI-K

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: WHIRLPOOL 4TH QTR 2016
Pace Project No.: 60231722

Method: **EPA 6010**
Description: 6010 MET ICP
Client: Ramboll Environ_AR
Date: November 11, 2016

General Information:
1 sample was analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: WHIRLPOOL 4TH QTR 2016
Pace Project No.: 60231722

Method: **EPA 5030B/8260**
Description: 8260 MSV
Client: Ramboll Environ_AR
Date: November 11, 2016

General Information:
4 samples were analyzed for EPA 5030B/8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

QC Batch: 453957

B: Analyte was detected in the associated method blank.
- BLANK for HBN 453957 [MSV/7907 (Lab ID: 1858819)
  - Chloromethane
  - cis-1,2-Dichloroethene

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: 453957

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
- LCS (Lab ID: 1858820)
  - 1,1,2-Trichloroethane
  - 4-Methyl-2-pentanone (MIBK)
  - Carbon disulfide

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 453957

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: WHIRLPOOL 4TH QTR 2016
Pace Project No.: 60231722

Method: **SM 2320B**
Description: 2320B Alkalinity
Client: Ramboll Environ_AR
Date: November 11, 2016

General Information:
1 sample was analyzed for SM 2320B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: WHIRLPOOL 4TH QTR 2016
Pace Project No.: 60231722

Method: **SM 4500-S-2 D**
Description: 4500S2D Sulfide, Total
Client: Ramboll Environ_AR
Date: November 11, 2016

General Information:
1 sample was analyzed for SM 4500-S-2 D. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: WHIRLPOOL 4TH QTR 2016
Pace Project No.: 60231722

Method: **EPA 300.0**
Description: 300.0 IC Anions 28 Days
Client: Ramboll Environ_AR
Date: November 11, 2016

General Information:
1 sample was analyzed for EPA 300.0. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: WHIRLPOOL 4TH QTR 2016
Pace Project No.: 60231722

Method: **EPA 350.1**
Description: 350.1 Ammonia
Client: Ramboll Environ_AR
Date: November 11, 2016

General Information:
1 sample was analyzed for EPA 350.1. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 454001

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60231342007,60231722001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1858941)
  - Nitrogen, Ammonia

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: WHIRLPOOL 4TH QTR 2016
Pace Project No.: 60231722

Method: **SM 5310C**
Description: 5310C TOC
Client: Ramboll Environ_AR
Date: November 11, 2016

General Information:
1 sample was analyzed for SM 5310C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: WHIRLPOOL 4TH QTR 2016
Pace Project No.: 60231722

Method: **SM 5310C**
Description: 5310C Dissolved Organic Carbon
Client: Ramboll Environ_AR
Date: November 11, 2016

General Information:
1 sample was analyzed for SM 5310C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: WHIRLPOOL 4TH QTR 2016
Pace Project No.: 60231722

Method: **SM 4500-P E**
Description: SM4500P-E, Total Phosphorus
Client: Ramboll Environ_AR
Date: November 11, 2016

General Information:
1 sample was analyzed for SM 4500-P E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with SM4500-P B with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 64757

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60231722001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 276942)
  - Phosphate as P04
- MSD (Lab ID: 276943)
  - Phosphate as P04

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: WHIRLPOOL 4TH QTR 2016
Pace Project No.: 60231722

Sample: MW-61R-201611 **Lab ID: 60231722001** Collected: 11/07/16 15:57 Received: 11/08/16 08:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	**11600**	ug/L	50.0	8.8	1	11/08/16 16:15	11/09/16 13:21	7439-89-6	
Manganese	**1020**	ug/L	5.0	0.25	1	11/08/16 16:15	11/09/16 13:21	7439-96-5	
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/09/16 21:01	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/09/16 21:01	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/09/16 21:01	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/09/16 21:01	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/09/16 21:01	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/09/16 21:01	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/09/16 21:01	75-15-0	L2
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/09/16 21:01	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/09/16 21:01	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/09/16 21:01	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/09/16 21:01	67-66-3	
Chloromethane	**0.21J**	ug/L	1.0	0.080	1		11/09/16 21:01	74-87-3	B
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/09/16 21:01	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/09/16 21:01	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/09/16 21:01	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/09/16 21:01	75-35-4	
cis-1,2-Dichloroethene	**2.9**	ug/L	1.0	0.080	1		11/09/16 21:01	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/09/16 21:01	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/09/16 21:01	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/09/16 21:01	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/09/16 21:01	10061-02-6	
Ethylbenzene	**0.28J**	ug/L	1.0	0.18	1		11/09/16 21:01	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/09/16 21:01	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/09/16 21:01	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/09/16 21:01	108-10-1	L2
Styrene	ND	ug/L	1.0	0.12	1		11/09/16 21:01	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/09/16 21:01	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/09/16 21:01	127-18-4	
Toluene	**0.48J**	ug/L	1.0	0.17	1		11/09/16 21:01	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/09/16 21:01	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/09/16 21:01	79-00-5	L3
Trichloroethene	**2.3**	ug/L	1.0	0.17	1		11/09/16 21:01	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/09/16 21:01	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/09/16 21:01	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	106	%	77-130		1		11/09/16 21:01	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	81-127		1		11/09/16 21:01	17060-07-0	
Toluene-d8 (S)	113	%	80-120		1		11/09/16 21:01	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/09/16 21:01		
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity,Bicarbonate (CaCO3)	**362**	mg/L	20.0	4.9	1		11/10/16 09:53		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: WHIRLPOOL 4TH QTR 2016
Pace Project No.: 60231722

Sample: MW-61R-201611 **Lab ID: 60231722001** Collected: 11/07/16 15:57 Received: 11/08/16 08:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity, Carbonate (CaCO3)	ND	mg/L	20.0	4.9	1		11/10/16 09:53		
Alkalinity, Total as CaCO3	**362**	mg/L	20.0	4.9	1		11/10/16 09:53		
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D								
Sulfide, Total	ND	mg/L	0.050	0.019	1		11/09/16 14:51	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Bromide	**1.7**	mg/L	1.0	0.50	1		11/10/16 01:09	24959-67-9	
Chloride	**87.3**	mg/L	10.0	5.0	10		11/10/16 08:31	16887-00-6	
Sulfate	**7.9**	mg/L	1.0	0.15	1		11/10/16 01:09	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**1.0**	mg/L	0.10	0.013	1		11/09/16 09:47	7664-41-7	M1
5310C TOC	Analytical Method: SM 5310C								
Total Organic Carbon	**3.4**	mg/L	1.0	0.054	1		11/09/16 12:39	7440-44-0	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C								
Dissolved Organic Carbon	**1.7**	mg/L	1.0	0.054	1		11/10/16 12:18	7440-44-0	
SM4500P-E, Total Phosphorus	Analytical Method: SM 4500-P E Preparation Method: SM4500-P B								
Phosphate as P04	**0.26**	mg/L	0.030	0.010	1	11/10/16 13:08	11/10/16 16:08		M1

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: WHIRLPOOL 4TH QTR 2016
Pace Project No.: 60231722

Sample: MW-189-201611 **Lab ID: 60231722002** Collected: 11/07/16 16:55 Received: 11/08/16 08:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/09/16 20:18	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/09/16 20:18	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/09/16 20:18	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/09/16 20:18	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/09/16 20:18	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/09/16 20:18	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/09/16 20:18	75-15-0	L2
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/09/16 20:18	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/09/16 20:18	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/09/16 20:18	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/09/16 20:18	67-66-3	
Chloromethane	**0.14J**	ug/L	1.0	0.080	1		11/09/16 20:18	74-87-3	B
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/09/16 20:18	124-48-1	
1,1-Dichloroethane	**0.55J**	ug/L	1.0	0.050	1		11/09/16 20:18	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/09/16 20:18	107-06-2	
1,1-Dichloroethene	**1.4**	ug/L	1.0	0.20	1		11/09/16 20:18	75-35-4	
cis-1,2-Dichloroethene	**9.7**	ug/L	1.0	0.080	1		11/09/16 20:18	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/09/16 20:18	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/09/16 20:18	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/09/16 20:18	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/09/16 20:18	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/09/16 20:18	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/09/16 20:18	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/09/16 20:18	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/09/16 20:18	108-10-1	L2
Styrene	ND	ug/L	1.0	0.12	1		11/09/16 20:18	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/09/16 20:18	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/09/16 20:18	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/09/16 20:18	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/09/16 20:18	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/09/16 20:18	79-00-5	L3
Trichloroethene	**10.2**	ug/L	1.0	0.17	1		11/09/16 20:18	79-01-6	
Vinyl chloride	**0.31J**	ug/L	1.0	0.13	1		11/09/16 20:18	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/09/16 20:18	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	77-130		1		11/09/16 20:18	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	81-127		1		11/09/16 20:18	17060-07-0	
Toluene-d8 (S)	113	%	80-120		1		11/09/16 20:18	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/09/16 20:18		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: WHIRLPOOL 4TH QTR 2016
Pace Project No.: 60231722

Sample: MW-186-201611 **Lab ID: 60231722003** Collected: 11/07/16 14:10 Received: 11/08/16 08:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/09/16 20:32	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/09/16 20:32	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/09/16 20:32	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/09/16 20:32	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/09/16 20:32	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/09/16 20:32	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/09/16 20:32	75-15-0	L2
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/09/16 20:32	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/09/16 20:32	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/09/16 20:32	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/09/16 20:32	67-66-3	
Chloromethane	**0.24J**	ug/L	1.0	0.080	1		11/09/16 20:32	74-87-3	B
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/09/16 20:32	124-48-1	
1,1-Dichloroethane	**0.74J**	ug/L	1.0	0.050	1		11/09/16 20:32	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/09/16 20:32	107-06-2	
1,1-Dichloroethene	**0.41J**	ug/L	1.0	0.20	1		11/09/16 20:32	75-35-4	
cis-1,2-Dichloroethene	**3.3**	ug/L	1.0	0.080	1		11/09/16 20:32	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/09/16 20:32	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/09/16 20:32	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/09/16 20:32	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/09/16 20:32	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/09/16 20:32	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/09/16 20:32	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/09/16 20:32	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/09/16 20:32	108-10-1	L2
Styrene	ND	ug/L	1.0	0.12	1		11/09/16 20:32	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/09/16 20:32	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/09/16 20:32	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/09/16 20:32	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/09/16 20:32	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/09/16 20:32	79-00-5	L3
Trichloroethene	**5.2**	ug/L	1.0	0.17	1		11/09/16 20:32	79-01-6	
Vinyl chloride	**0.16J**	ug/L	1.0	0.13	1		11/09/16 20:32	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/09/16 20:32	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	77-130		1		11/09/16 20:32	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	81-127		1		11/09/16 20:32	17060-07-0	
Toluene-d8 (S)	115	%	80-120		1		11/09/16 20:32	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/09/16 20:32		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: WHIRLPOOL 4TH QTR 2016
Pace Project No.: 60231722

Sample: MW-194-201611 **Lab ID: 60231722004** Collected: 11/07/16 15:40 Received: 11/08/16 08:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/09/16 20:47	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/09/16 20:47	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/09/16 20:47	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/09/16 20:47	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/09/16 20:47	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/09/16 20:47	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/09/16 20:47	75-15-0	L2
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/09/16 20:47	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/09/16 20:47	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/09/16 20:47	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/09/16 20:47	67-66-3	
Chloromethane	**0.28J**	ug/L	1.0	0.080	1		11/09/16 20:47	74-87-3	B
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/09/16 20:47	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/09/16 20:47	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/09/16 20:47	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/09/16 20:47	75-35-4	
cis-1,2-Dichloroethene	**0.89J**	ug/L	1.0	0.080	1		11/09/16 20:47	156-59-2	B
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/09/16 20:47	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/09/16 20:47	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/09/16 20:47	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/09/16 20:47	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/09/16 20:47	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/09/16 20:47	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/09/16 20:47	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/09/16 20:47	108-10-1	L2
Styrene	ND	ug/L	1.0	0.12	1		11/09/16 20:47	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/09/16 20:47	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/09/16 20:47	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/09/16 20:47	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/09/16 20:47	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/09/16 20:47	79-00-5	L3
Trichloroethene	**12.7**	ug/L	1.0	0.17	1		11/09/16 20:47	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/09/16 20:47	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/09/16 20:47	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	101	%	77-130		1		11/09/16 20:47	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	81-127		1		11/09/16 20:47	17060-07-0	
Toluene-d8 (S)	109	%	80-120		1		11/09/16 20:47	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/09/16 20:47		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: WHIRLPOOL 4TH QTR 2016
Pace Project No.: 60231722

QC Batch: 454019
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Associated Lab Samples: 60231722001

METHOD BLANK: 1858977
Matrix: Water
Associated Lab Samples: 60231722001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron	ug/L	ND	50.0	8.8	11/09/16 13:16	
Manganese	ug/L	ND	5.0	0.25	11/09/16 13:16	

LABORATORY CONTROL SAMPLE: 1858978

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron	ug/L	10000	10400	104	80-120	
Manganese	ug/L	1000	1020	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1858979 1858980

Parameter	Units	60231722001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron	ug/L	11600	10000	10000	21700	21600	101	100	75-125	1	20	
Manganese	ug/L	1020	1000	1000	2020	2020	100	100	75-125	0	20	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: WHIRLPOOL 4TH QTR 2016
Pace Project No.: 60231722

QC Batch: 453957 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60231722001, 60231722002, 60231722003, 60231722004

METHOD BLANK: 1858819 Matrix: Water
Associated Lab Samples: 60231722001, 60231722002, 60231722003, 60231722004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	0.11	11/09/16 19:49	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.15	11/09/16 19:49	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.20	11/09/16 19:49	
1,1-Dichloroethane	ug/L	ND	1.0	0.050	11/09/16 19:49	
1,1-Dichloroethene	ug/L	ND	1.0	0.20	11/09/16 19:49	
1,2-Dichloroethane	ug/L	ND	1.0	0.12	11/09/16 19:49	
1,2-Dichloropropane	ug/L	ND	1.0	0.16	11/09/16 19:49	
2-Butanone (MEK)	ug/L	ND	10.0	0.59	11/09/16 19:49	
2-Hexanone	ug/L	ND	10.0	1.2	11/09/16 19:49	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	0.42	11/09/16 19:49	
Acetone	ug/L	ND	10.0	1.9	11/09/16 19:49	
Benzene	ug/L	ND	1.0	0.060	11/09/16 19:49	
Bromodichloromethane	ug/L	ND	1.0	0.19	11/09/16 19:49	
Bromoform	ug/L	ND	1.0	0.070	11/09/16 19:49	
Bromomethane	ug/L	ND	5.0	0.16	11/09/16 19:49	
Carbon disulfide	ug/L	ND	5.0	0.12	11/09/16 19:49	
Carbon tetrachloride	ug/L	ND	1.0	0.18	11/09/16 19:49	
Chlorobenzene	ug/L	ND	1.0	0.21	11/09/16 19:49	
Chloroethane	ug/L	ND	1.0	0.15	11/09/16 19:49	
Chloroform	ug/L	0.15J	1.0	0.14	11/09/16 19:49	
Chloromethane	ug/L	0.23J	1.0	0.080	11/09/16 19:49	
cis-1,2-Dichloroethene	ug/L	0.20J	1.0	0.080	11/09/16 19:49	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.14	11/09/16 19:49	
Dibromochloromethane	ug/L	ND	1.0	0.21	11/09/16 19:49	
Ethylbenzene	ug/L	ND	1.0	0.18	11/09/16 19:49	
Methylene chloride	ug/L	ND	1.0	0.15	11/09/16 19:49	
Styrene	ug/L	ND	1.0	0.12	11/09/16 19:49	
Tetrachloroethene	ug/L	ND	1.0	0.10	11/09/16 19:49	
Toluene	ug/L	ND	1.0	0.17	11/09/16 19:49	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.20	11/09/16 19:49	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.12	11/09/16 19:49	
Trichloroethene	ug/L	ND	1.0	0.17	11/09/16 19:49	
Vinyl chloride	ug/L	ND	1.0	0.13	11/09/16 19:49	
Xylene (Total)	ug/L	ND	3.0	0.42	11/09/16 19:49	
1,2-Dichloroethane-d4 (S)	%	97	81-127		11/09/16 19:49	
4-Bromofluorobenzene (S)	%	102	77-130		11/09/16 19:49	
Toluene-d8 (S)	%	113	80-120		11/09/16 19:49	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: WHIRLPOOL 4TH QTR 2016
Pace Project No.: 60231722

LABORATORY CONTROL SAMPLE: 1858820

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	16.5	82	81-116	
1,1,2,2-Tetrachloroethane	ug/L	20	23.5	117	72-117	
1,1,2-Trichloroethane	ug/L	20	22.6	113	79-108	L0
1,1-Dichloroethane	ug/L	20	17.0	85	83-117	
1,1-Dichloroethene	ug/L	20	16.8	84	74-114	
1,2-Dichloroethane	ug/L	20	16.4	82	72-116	
1,2-Dichloropropane	ug/L	20	17.6	88	80-120	
2-Butanone (MEK)	ug/L	100	75.5	76	67-129	
2-Hexanone	ug/L	100	98.5	99	70-128	
4-Methyl-2-pentanone (MIBK)	ug/L	100	75.5	75	80-120	L0
Acetone	ug/L	100	73.4	73	56-142	
Benzene	ug/L	20	17.0	85	79-116	
Bromodichloromethane	ug/L	20	16.5	83	80-120	
Bromoform	ug/L	20	20.3	101	73-114	
Bromomethane	ug/L	20	18.6	93	49-153	
Carbon disulfide	ug/L	20	16.0	80	82-121	L0
Carbon tetrachloride	ug/L	20	17.3	86	80-116	
Chlorobenzene	ug/L	20	21.2	106	80-120	
Chloroethane	ug/L	20	16.5	83	67-124	
Chloroform	ug/L	20	17.2	86	79-120	
Chloromethane	ug/L	20	17.6	88	10-192	
cis-1,2-Dichloroethene	ug/L	20	16.4	82	80-120	
cis-1,3-Dichloropropene	ug/L	20	16.1	81	80-120	
Dibromochloromethane	ug/L	20	20.9	105	80-120	
Ethylbenzene	ug/L	20	21.6	108	80-120	
Methylene chloride	ug/L	20	18.1	91	80-120	
Styrene	ug/L	20	21.6	108	80-120	
Tetrachloroethene	ug/L	20	21.6	108	80-120	
Toluene	ug/L	20	21.9	109	80-120	
trans-1,2-Dichloroethene	ug/L	20	17.7	88	78-108	
trans-1,3-Dichloropropene	ug/L	20	20.6	103	85-120	
Trichloroethene	ug/L	20	17.6	88	76-114	
Vinyl chloride	ug/L	20	16.9	84	69-129	
Xylene (Total)	ug/L	60	63.5	106	80-120	
1,2-Dichloroethane-d4 (S)	%			99	81-127	
4-Bromofluorobenzene (S)	%			102	77-130	
Toluene-d8 (S)	%			115	80-120	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: WHIRLPOOL 4TH QTR 2016
Pace Project No.: 60231722

QC Batch: 454247
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Associated Lab Samples: 60231722001

METHOD BLANK: 1860055 Matrix: Water
Associated Lab Samples: 60231722001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Carbonate (CaCO3)	mg/L	ND	20.0	4.9	11/10/16 09:47	
Alkalinity, Total as CaCO3	mg/L	ND	20.0	4.9	11/10/16 09:47	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	20.0	4.9	11/10/16 09:47	

LABORATORY CONTROL SAMPLE: 1860056

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	500	491	98	90-110	

SAMPLE DUPLICATE: 1860057

Parameter	Units	60231869001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Carbonate (CaCO3)	mg/L	ND	ND		10	
Alkalinity, Total as CaCO3	mg/L	598	603	1	10	
Alkalinity,Bicarbonate (CaCO3)	mg/L	598	603	1	10	

SAMPLE DUPLICATE: 1860058

Parameter	Units	60231506002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Carbonate (CaCO3)	mg/L	ND	ND		10	
Alkalinity, Total as CaCO3	mg/L	342	343	0	10	
Alkalinity,Bicarbonate (CaCO3)	mg/L	342	343	0	10	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: WHIRLPOOL 4TH QTR 2016
Pace Project No.: 60231722

QC Batch: 454067
QC Batch Method: SM 4500-S-2 D
Analysis Method: SM 4500-S-2 D
Analysis Description: 4500S2D Sulfide, Total
Associated Lab Samples: 60231722001

METHOD BLANK: 1859176 Matrix: Water
Associated Lab Samples: 60231722001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide, Total	mg/L	ND	0.050	0.019	11/09/16 14:51	

LABORATORY CONTROL SAMPLE: 1859177

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	.5	0.52	104	80-120	

MATRIX SPIKE SAMPLE: 1859178

Parameter	Units	60231744004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	ND	.5	0.56	111	75-125	

SAMPLE DUPLICATE: 1859179

Parameter	Units	60231744002 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Total	mg/L	ND	ND		20	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: WHIRLPOOL 4TH QTR 2016
Pace Project No.: 60231722

QC Batch: 454105
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Associated Lab Samples: 60231722001

METHOD BLANK: 1859346
Matrix: Water
Associated Lab Samples: 60231722001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Bromide	mg/L	ND	1.0	0.50	11/09/16 21:54	
Sulfate	mg/L	ND	1.0	0.15	11/09/16 21:54	

LABORATORY CONTROL SAMPLE: 1859347

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	5	5.2	103	90-110	
Sulfate	mg/L	5	4.8	97	90-110	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: WHIRLPOOL 4TH QTR 2016
Pace Project No.: 60231722

QC Batch: 454223
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Associated Lab Samples: 60231722001

METHOD BLANK: 1859902 Matrix: Water
Associated Lab Samples: 60231722001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.50	11/10/16 05:44	

LABORATORY CONTROL SAMPLE: 1859903

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	5	4.8	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1859904 1859905

Parameter	Units	60230938001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	20.8	10	10	31.9	31.8	111	110	80-120	0	15	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: WHIRLPOOL 4TH QTR 2016
Pace Project No.: 60231722

QC Batch: 454001 Analysis Method: EPA 350.1
QC Batch Method: EPA 350.1 Analysis Description: 350.1 Ammonia
Associated Lab Samples: 60231722001

METHOD BLANK: 1858939 Matrix: Water
Associated Lab Samples: 60231722001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	ND	0.10	0.013	11/09/16 09:43	

LABORATORY CONTROL SAMPLE: 1858940

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	5	5.0	99	90-110	

MATRIX SPIKE SAMPLE: 1858941

Parameter	Units	60231722001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	1.0	5	6.8	116	90-110	M1

MATRIX SPIKE SAMPLE: 1858943

Parameter	Units	60231342007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	ND	5	5.0	100	90-110	

SAMPLE DUPLICATE: 1858942

Parameter	Units	60231238001 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Ammonia	mg/L	ND	ND		18	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: WHIRLPOOL 4TH QTR 2016
Pace Project No.: 60231722

QC Batch: 454046 Analysis Method: SM 5310C
QC Batch Method: SM 5310C Analysis Description: 5310C Total Organic Carbon
Associated Lab Samples: 60231722001

METHOD BLANK: 1859092 Matrix: Water
Associated Lab Samples: 60231722001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	0.076J	1.0	0.054	11/09/16 10:45	

LABORATORY CONTROL SAMPLE: 1859093

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	5	4.7	94	80-120	

MATRIX SPIKE SAMPLE: 1859094

Parameter	Units	60231067010 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	ND	5	5.0	97	80-120	

SAMPLE DUPLICATE: 1859095

Parameter	Units	60231067011 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Organic Carbon	mg/L	1.2	1.1	2	25	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: WHIRLPOOL 4TH QTR 2016
Pace Project No.: 60231722

QC Batch: 454267
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Dissolved Organic Carbon
Associated Lab Samples: 60231722001

METHOD BLANK: 1860126 Matrix: Water
Associated Lab Samples: 60231722001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	0.056J	1.0	0.054	11/10/16 10:24	

LABORATORY CONTROL SAMPLE: 1860127

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	5	4.6	91	80-120	

MATRIX SPIKE SAMPLE: 1860128

Parameter	Units	60231723001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	1.8	5	7.3	111	80-120	

SAMPLE DUPLICATE: 1860129

Parameter	Units	60231723002 Result	Dup Result	RPD	Max RPD	Qualifiers
Dissolved Organic Carbon	mg/L	1.1	0.91J		25	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: WHIRLPOOL 4TH QTR 2016
Pace Project No.: 60231722

QC Batch: 64757
QC Batch Method: SM4500-P B
Analysis Method: SM 4500-P E
Analysis Description: SM4500P-E, Total Phosphorus
Associated Lab Samples: 60231722001

METHOD BLANK: 276940 Matrix: Water
Associated Lab Samples: 60231722001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphate as P04	mg/L	0.010J	0.030	0.010	11/10/16 16:07	

LABORATORY CONTROL SAMPLE: 276941

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphate as P04	mg/L	1.5	1.4	91	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 276942 276943

Parameter	Units	60231722001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphate as P04	mg/L	0.26	1.5	1.5	1.4	1.2	75	58	80-120	20	20	M1

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALIFIERS

Project: WHIRLPOOL 4TH QTR 2016
Pace Project No.: 60231722

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-D	Pace Analytical Services - Dallas
PASI-K	Pace Analytical Services - Kansas City

BATCH QUALIFIERS

Batch: 453957

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

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L2	Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.
L3	Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WHIRLPOOL 4TH QTR 2016
Pace Project No.: 60231722

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60231722001	**MW-61R-201611**	EPA 3010	454019	EPA 6010	454038
60231722001	**MW-61R-201611**	EPA 5030B/8260	453957		
60231722002	**MW-189-201611**	EPA 5030B/8260	453957		
60231722003	**MW-186-201611**	EPA 5030B/8260	453957		
60231722004	**MW-194-201611**	EPA 5030B/8260	453957		
60231722001	**MW-61R-201611**	SM 2320B	454247		
60231722001	**MW-61R-201611**	SM 4500-S-2 D	454067		
60231722001	**MW-61R-201611**	EPA 300.0	454105		
60231722001	**MW-61R-201611**	EPA 300.0	454223		
60231722001	**MW-61R-201611**	EPA 350.1	454001		
60231722001	**MW-61R-201611**	SM 5310C	454046		
60231722001	**MW-61R-201611**	SM 5310C	454267		
60231722001	**MW-61R-201611**	SM4500-P B	64757	SM 4500-P E	64782

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical®
www.pacelabs.com

Sample Condition Upon Receipt

WO# : 60231722

60231722

Client Name: Environ

Courier: FedEx ☒ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☐ Client ☐ Other ☐

Tracking #: 8403 0090 9826 Pace Shipping Label Used? Yes ☐ No ☒

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

Packing Material: Bubble Wrap ☒ Bubble Bags ☐ Foam ☐ None ☐ Other ☐

Thermometer Used: (CF +0.7 / CF -0.5) T-266 / T-239 **Type of Ice:** (Wet) Blue None

Cooler Temperature (°C): **As-read** 1.2 **Corr. Factor** (CF +0.7 / CF -0.5) **Corrected** 1.9

Date and initials of person examining contents: dhs

Temperature should be above freezing to 6°C

Chain of Custody present:	☑Yes ☐No ☐N/A	
Chain of Custody relinquished:	☑Yes ☐No ☐N/A	
Samples arrived within holding time:	☑Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☐Yes ☑No ☐N/A	
Rush Turn Around Time requested:	☑Yes ☐No ☐N/A	2 day TAT
Sufficient volume:	☑Yes ☐No ☐N/A	time
Correct containers used:	☑Yes ☐No ☐N/A	Tech #3 1655
Pace containers used:	☑Yes ☐No ☐N/A	4 1410
Containers intact:	☑Yes ☐No ☐N/A	5 1540
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☑N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☑N/A	
Sample labels match COC: Date / time / ID / analyses	☑Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: WATER	☐Yes ☐No ☑N/A	
Containers requiring pH preservation in compliance? (HNO3, H2SO4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO)	☑Yes ☐No ☐N/A	
Cyanide water sample checks: ☑N/A Lead acetate strip turns dark? (Record only) Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No ☐Yes ☐No	
Trip Blank present:	☑Yes ☐No ☐N/A	one trip for two projects.
Headspace in VOA vials (>6mm):	☐Yes ☑No ☐N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☑N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☑N/A	

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: CMC Date: 11/08/10

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Ramboll Environ_AR	Report To:	Wendy Stonestreet	Attention:	
Address:	7500 College Blvd Ste 925	Copy To:		Company Name:	
	Overland Park, KS 66210			Address:	
Email:	wstonestreet@ramboll.com	Purchase Order #:		Pace Quote:	
Phone:	(913)553-5926 Fax:	Project Name:	Whirlpool 4th Qtr 2016	Pace Project Manager:	colleen.clyne@pacelabs.com,
Requested Due Date:	2 day tat	Project #:	34375000	Pace Profile #:	7444

Regulatory Agency

State / Location

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Alkalinity/Cl/SO4/Bromide	Sulfide	Metals	TOC/Ammonia	Total Phosphate	8260 VOCs Full List	Trip BLANK	Dissolved Organic Carbon			Residual Chlorine (Y/N)	60231722
1	MW-61R -20161111	WT				11/7/16	1557		9	X	X	X	X	X				X	X	X	X	X	X	X		X			Fe & Mn, by Pace Dallas 01
2	NoClientID1 US	WT																							X				-
3	MW-189-20161111	WT				11/7/16			3	9	X	X	X	X	X	US			X	X	X	X	X	X		X	US		02
4	MW-190-20161111	WT				11/7/16			3	9	X	X	X	X	X	US									X				03
5	MW-194-20161111	WT				11/7/16			3	9	X	X	X	X	X	US									X				04
6																													
7																													
8																													
9																													
10																													
11																													
12																													

(1) 3(DG9H) 1(BP3U) 2 1(BP3N) 3
(2) 2(VG9U) 1(BP3N) (1(BP3S) 4 5

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Victoria Stephen	11/7/16	1800	Pace	11/8/16	845	1.9	Y	Y	Y

SAMPLER NAME AND SIGNATURE					
PRINT Name of SAMPLER:	Victoria Stephen		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
SIGNATURE of SAMPLER:	Victoria Stephen	DATE Signed: 11/7/16				

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

November 28, 2016

Tamara Gleason
Ramboll Environ
250 Monroe Ave. NW
Ste 400
Grand Rapids, MI 49503

RE: Project: FORT SMITH, AR
Pace Project No.: 60231848

Dear Tamara Gleason:
Enclosed are the analytical results for sample(s) received by the laboratory on November 09, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Colleen Clyne
colleen.clyne@pacelabs.com
Project Manager

Enclosures

cc: Johanna Pavlowsky, Ramboll Environ

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

CERTIFICATIONS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219
WY STR Certification #: 2456.01
Arkansas Certification #: 15-016-0
Illinois Certification #: 003097
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407
Utah Certification #: KS00021
Kansas Field Laboratory Accreditation: # E-92587
Missouri Certification: 10070

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

SAMPLE SUMMARY

Project: FORT SMITH, AR
Pace Project No.: 60231848

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60231848001	**MW-60R-201611**	Water	11/08/16 12:50	11/09/16 09:10
60231848002	**MW-46R-201611**	Water	11/08/16 13:50	11/09/16 09:10
60231848003	**MW-18S-201611**	Water	11/08/16 16:40	11/09/16 09:10
60231848004	**IW-77-201611**	Water	11/08/16 09:29	11/09/16 09:10
60231848005	**IW-78-201611**	Water	11/08/16 11:37	11/09/16 09:10
60231848006	**MW-22-201611**	Water	11/08/16 13:16	11/09/16 09:10
60231848007	**MW-24-201611**	Water	11/08/16 16:35	11/09/16 09:10
60231848008	**MW-17S-201611**	Water	11/08/16 12:40	11/09/16 09:10
60231848009	**DUP-07-201611**	Water	11/08/16 10:35	11/09/16 09:10
60231848010	**MW-57R-201611**	Water	11/08/16 10:35	11/09/16 09:10
60231848011	**MW-56R-201611**	Water	11/08/16 09:05	11/09/16 09:10
60231848012	**MW-176-201611**	Water	11/08/16 14:55	11/09/16 09:10
60231848013	**MW-87-201611**	Water	11/08/16 17:00	11/09/16 09:10
60231848014	**MW-89-201611**	Water	11/08/16 15:15	11/09/16 09:10
60231848015	**TMW-11-201611**	Water	11/08/16 09:27	11/09/16 09:10
60231848016	**DUP-05-201611**	Water	11/08/16 17:00	11/09/16 09:10
60231848017	**MW-190-201611**	Water	11/08/16 15:15	11/09/16 09:10
60231848018	**MW-98-201611**	Water	11/08/16 13:15	11/09/16 09:10
60231848019	**MW-191-201611**	Water	11/08/16 16:35	11/09/16 09:10
60231848020	**MW-97-201611**	Water	11/08/16 11:25	11/09/16 09:10
60231848021	**MW-96-201611**	Water	11/08/16 10:15	11/09/16 09:10
60231848022	**MW-184-201611**	Water	11/08/16 08:25	11/09/16 09:10
60231848023	**EB-02-201611**	Water	11/08/16 17:00	11/09/16 09:10
60231848024	**ITMW-10-201611**	Water	11/08/16 09:17	11/09/16 09:10
60231848025	**ITMW-9-201611**	Water	11/08/16 16:00	11/09/16 09:10
60231848026	**TB-1-201611**	Water	11/08/16 08:25	11/09/16 09:10
60231848027	**TB-3-201611**	Water	11/08/16 08:25	11/09/16 09:10

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

SAMPLE ANALYTE COUNT

Project: FORT SMITH, AR
Pace Project No.: 60231848

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60231848001	**MW-60R-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848002	**MW-46R-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848003	**MW-18S-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848004	**IW-77-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848005	**IW-78-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848006	**MW-22-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848007	**MW-24-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848008	**MW-17S-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848009	**DUP-07-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848010	**MW-57R-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848011	**MW-56R-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848012	**MW-176-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848013	**MW-87-201611**	EPA 6010	NDJ	1	PASI-K
		EPA 5030B/8260	PGH	38	PASI-K
		SM 3500-Fe B#4	TJG	1	PASI-K
		SM 4500-S-2 D	HMM	1	PASI-K
		EPA 300.0	OL	1	PASI-K
		EPA 353.2	LDB	3	PASI-K
		SM 5310C	JMC1	1	PASI-K
60231848014	**MW-89-201611**	EPA 6010	NDJ	1	PASI-K
		EPA 5030B/8260	PGH	38	PASI-K
		SM 3500-Fe B#4	TJG	1	PASI-K
		SM 4500-S-2 D	HMM	1	PASI-K
		EPA 300.0	OL	1	PASI-K
		EPA 353.2	LDB	3	PASI-K
		SM 5310C	JMC1	1	PASI-K
60231848015	**TMW-11-201611**	EPA 6010	NDJ	1	PASI-K
		EPA 5030B/8260	PGH	38	PASI-K
		SM 3500-Fe B#4	TJG	1	PASI-K
		SM 4500-S-2 D	HMM	1	PASI-K
		EPA 300.0	OL	1	PASI-K
		EPA 353.2	LDB	3	PASI-K
		SM 5310C	JMC1	1	PASI-K
60231848016	**DUP-05-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848017	**MW-190-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848018	**MW-98-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848019	**MW-191-201611**	EPA 5030B/8260	PGH	38	PASI-K

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

SAMPLE ANALYTE COUNT

Project: FORT SMITH, AR
Pace Project No.: 60231848

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60231848020	**MW-97-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848021	**MW-96-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848022	**MW-184-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848023	**EB-02-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848024	**ITMW-10-201611**	EPA 6010	NDJ	1	PASI-K
		EPA 5030B/8260	PGH	38	PASI-K
		SM 3500-Fe B#4	TJG	1	PASI-K
		SM 4500-S-2 D	HMM	1	PASI-K
		EPA 300.0	OL	1	PASI-K
		EPA 353.2	LDB	3	PASI-K
		SM 5310C	JMC1	1	PASI-K
60231848025	**ITMW-9-201611**	EPA 6010	NDJ	1	PASI-K
		EPA 5030B/8260	PGH	37	PASI-K
		SM 3500-Fe B#4	TJG	1	PASI-K
		SM 4500-S-2 D	HMM	1	PASI-K
		EPA 300.0	OL	1	PASI-K
		EPA 353.2	LDB	3	PASI-K
		SM 5310C	JMC1	1	PASI-K
60231848026	**TB-1-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848027	**TB-3-201611**	EPA 5030B/8260	PGH	38	PASI-K

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231848

Method: **EPA 6010**
Description: 6010 MET ICP
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
5 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231848

Method: **EPA 5030B/8260**
Description: 8260 MSV
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
27 samples were analyzed for EPA 5030B/8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

QC Batch: 454950

B: Analyte was detected in the associated method blank.
- BLANK for HBN 454950 [MSV/7922 (Lab ID: 1863034)
  - 1,1-Dichloroethene

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: 454968

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
- LCS (Lab ID: 1863068)
  - 1,1,2,2-Tetrachloroethane
  - Bromoform

QC Batch: 455179

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
- LCS (Lab ID: 1863805)
  - 1,1,2-Trichloroethane

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231848

Method: **EPA 5030B/8260**
Description: 8260 MSV
Client: Ramboll Environ_AR
Date: November 28, 2016

QC Batch: 454817

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

QC Batch: 454950

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60231848019

R1: RPD value was outside control limits.

- MSD (Lab ID: 1863037)
  - 1,1,2-Trichloroethane
  - Vinyl chloride
  - trans-1,3-Dichloropropene

QC Batch: 454968

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60231848025,60231925008

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MSD (Lab ID: 1863070)
  - Dibromochloromethane
  - cis-1,2-Dichloroethene

R1: RPD value was outside control limits.

- MSD (Lab ID: 1863070)
  - 1,1,1-Trichloroethane
  - 2-Butanone (MEK)
  - 4-Methyl-2-pentanone (MIBK)
  - Acetone
- MSD (Lab ID: 1863072)
  - 1,1,2,2-Tetrachloroethane

QC Batch: 455179

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231848

Method: **SM 3500-Fe B#4**
Description: Iron, Ferric (Calculation)
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
5 samples were analyzed for SM 3500-Fe B#4. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231848

Method: **SM 4500-S-2 D**
Description: 4500S2D Sulfide, Total
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
5 samples were analyzed for SM 4500-S-2 D. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231848

Method: **EPA 300.0**
Description: 300.0 IC Anions 28 Days
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
5 samples were analyzed for EPA 300.0. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231848

Method: **EPA 353.2**
Description: 353.2 Nitrogen, NO2/NO3 unpres
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
5 samples were analyzed for EPA 353.2. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 454180

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60231848025

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1859720)
  - Nitrogen, Nitrate

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231848

Method: **SM 5310C**
Description: 5310C TOC
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
5 samples were analyzed for SM 5310C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

QC Batch: 454642

B: Analyte was detected in the associated method blank.
- BLANK for HBN 454642 [WETA/423 (Lab ID: 1861911)
  - Total Organic Carbon

QC Batch: 454961

B: Analyte was detected in the associated method blank.
- BLANK for HBN 454961 [WETA/424 (Lab ID: 1863050)
  - Total Organic Carbon

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 454642

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60231927001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- MS (Lab ID: 1861913)
  - Total Organic Carbon

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-60R-201611 **Lab ID: 60231848001** Collected: 11/08/16 12:50 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	**2.3J**	ug/L	10.0	1.9	1		11/14/16 04:00	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/14/16 04:00	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 04:00	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/14/16 04:00	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/14/16 04:00	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 04:00	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 04:00	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 04:00	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 04:00	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 04:00	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/14/16 04:00	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/14/16 04:00	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 04:00	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 04:00	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 04:00	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 04:00	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/14/16 04:00	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 04:00	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 04:00	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 04:00	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 04:00	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 04:00	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 04:00	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 04:00	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 04:00	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 04:00	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 04:00	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 04:00	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 04:00	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 04:00	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 04:00	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/14/16 04:00	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/14/16 04:00	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 04:00	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	98	%	77-130		1		11/14/16 04:00	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	81-127		1		11/14/16 04:00	17060-07-0	
Toluene-d8 (S)	97	%	80-120		1		11/14/16 04:00	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/14/16 04:00		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-46R-201611 **Lab ID: 60231848002** Collected: 11/08/16 13:50 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/14/16 04:44	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/14/16 04:44	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 04:44	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/14/16 04:44	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/14/16 04:44	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 04:44	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 04:44	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 04:44	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 04:44	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 04:44	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/14/16 04:44	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/14/16 04:44	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 04:44	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 04:44	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 04:44	107-06-2	
1,1-Dichloroethene	**1.2**	ug/L	1.0	0.20	1		11/14/16 04:44	75-35-4	
cis-1,2-Dichloroethene	**10.3**	ug/L	1.0	0.080	1		11/14/16 04:44	156-59-2	
trans-1,2-Dichloroethene	**0.35J**	ug/L	1.0	0.20	1		11/14/16 04:44	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 04:44	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 04:44	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 04:44	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 04:44	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 04:44	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 04:44	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 04:44	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 04:44	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 04:44	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 04:44	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 04:44	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 04:44	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 04:44	79-00-5	
Trichloroethene	**411**	ug/L	5.0	0.85	5		11/15/16 18:54	79-01-6	
Vinyl chloride	**0.79J**	ug/L	1.0	0.13	1		11/14/16 04:44	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 04:44	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	99	%	77-130		1		11/14/16 04:44	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	81-127		1		11/14/16 04:44	17060-07-0	
Toluene-d8 (S)	97	%	80-120		1		11/14/16 04:44	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/14/16 04:44		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-18S-201611 **Lab ID: 60231848003** Collected: 11/08/16 16:40 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/14/16 04:29	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/14/16 04:29	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 04:29	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/14/16 04:29	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/14/16 04:29	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 04:29	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 04:29	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 04:29	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 04:29	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 04:29	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/14/16 04:29	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/14/16 04:29	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 04:29	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 04:29	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 04:29	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 04:29	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/14/16 04:29	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 04:29	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 04:29	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 04:29	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 04:29	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 04:29	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 04:29	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 04:29	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 04:29	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 04:29	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 04:29	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 04:29	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 04:29	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 04:29	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 04:29	79-00-5	
Trichloroethene	**3.1**	ug/L	1.0	0.17	1		11/14/16 04:29	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/14/16 04:29	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 04:29	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	102	%	77-130		1		11/14/16 04:29	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	81-127		1		11/14/16 04:29	17060-07-0	
Toluene-d8 (S)	100	%	80-120		1		11/14/16 04:29	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/14/16 04:29		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: IW-77-201611 **Lab ID: 60231848004** Collected: 11/08/16 09:29 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	**21.6**	ug/L	10.0	1.9	1		11/14/16 11:33	67-64-1	
Benzene	**0.11J**	ug/L	1.0	0.060	1		11/14/16 11:33	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 11:33	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/14/16 11:33	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/14/16 11:33	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 11:33	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 11:33	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 11:33	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 11:33	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 11:33	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/14/16 11:33	67-66-3	
Chloromethane	**1.6**	ug/L	1.0	0.080	1		11/14/16 11:33	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 11:33	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 11:33	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 11:33	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 11:33	75-35-4	
cis-1,2-Dichloroethene	**2.1**	ug/L	1.0	0.080	1		11/14/16 11:33	156-59-2	
trans-1,2-Dichloroethene	**0.43J**	ug/L	1.0	0.20	1		11/14/16 11:33	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 11:33	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 11:33	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 11:33	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 11:33	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 11:33	591-78-6	
Methylene chloride	**0.27J**	ug/L	1.0	0.15	1		11/14/16 11:33	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 11:33	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 11:33	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 11:33	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 11:33	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 11:33	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 11:33	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 11:33	79-00-5	
Trichloroethene	**137**	ug/L	1.0	0.17	1		11/14/16 11:33	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/14/16 11:33	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 11:33	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	98	%	77-130		1		11/14/16 11:33	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	81-127		1		11/14/16 11:33	17060-07-0	
Toluene-d8 (S)	100	%	80-120		1		11/14/16 11:33	2037-26-5	
Preservation pH	**7.0**		0.10	0.10	1		11/14/16 11:33		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: IW-78-201611 **Lab ID: 60231848005** Collected: 11/08/16 11:37 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	**82.4**	ug/L	10.0	1.9	1		11/14/16 11:19	67-64-1	
Benzene	**0.11J**	ug/L	1.0	0.060	1		11/14/16 11:19	71-43-2	
Bromodichloromethane	**0.34J**	ug/L	1.0	0.19	1		11/14/16 11:19	75-27-4	
Bromoform	**11.5**	ug/L	1.0	0.070	1		11/14/16 11:19	75-25-2	
Bromomethane	**2.4J**	ug/L	5.0	0.16	1		11/14/16 11:19	74-83-9	
2-Butanone (MEK)	**6.1J**	ug/L	10.0	0.59	1		11/14/16 11:19	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 11:19	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 11:19	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 11:19	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 11:19	75-00-3	
Chloroform	**0.16J**	ug/L	1.0	0.14	1		11/14/16 11:19	67-66-3	
Chloromethane	**7.5**	ug/L	1.0	0.080	1		11/14/16 11:19	74-87-3	
Dibromochloromethane	**0.76J**	ug/L	1.0	0.21	1		11/14/16 11:19	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 11:19	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 11:19	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 11:19	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/14/16 11:19	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 11:19	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 11:19	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 11:19	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 11:19	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 11:19	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 11:19	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 11:19	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 11:19	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 11:19	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 11:19	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 11:19	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 11:19	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 11:19	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 11:19	79-00-5	
Trichloroethene	**2.6**	ug/L	1.0	0.17	1		11/14/16 11:19	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/14/16 11:19	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 11:19	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	99	%	77-130		1		11/14/16 11:19	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	81-127		1		11/14/16 11:19	17060-07-0	
Toluene-d8 (S)	99	%	80-120		1		11/14/16 11:19	2037-26-5	
Preservation pH	**3.0**		0.10	0.10	1		11/14/16 11:19		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-22-201611 **Lab ID: 60231848006** Collected: 11/08/16 13:16 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/14/16 04:14	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/14/16 04:14	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 04:14	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/14/16 04:14	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/14/16 04:14	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 04:14	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 04:14	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 04:14	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 04:14	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 04:14	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/14/16 04:14	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/14/16 04:14	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 04:14	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 04:14	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 04:14	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 04:14	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/14/16 04:14	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 04:14	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 04:14	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 04:14	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 04:14	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 04:14	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 04:14	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 04:14	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 04:14	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 04:14	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 04:14	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 04:14	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 04:14	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 04:14	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 04:14	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/14/16 04:14	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/14/16 04:14	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 04:14	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	101	%	77-130		1		11/14/16 04:14	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	81-127		1		11/14/16 04:14	17060-07-0	
Toluene-d8 (S)	100	%	80-120		1		11/14/16 04:14	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/14/16 04:14		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-24-201611 **Lab ID: 60231848007** Collected: 11/08/16 16:35 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	**90.1**	ug/L	10.0	1.9	1		11/14/16 11:48	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/14/16 11:48	71-43-2	
Bromodichloromethane	**0.78J**	ug/L	1.0	0.19	1		11/14/16 11:48	75-27-4	
Bromoform	**59.2**	ug/L	1.0	0.070	1		11/14/16 11:48	75-25-2	
Bromomethane	**8.3**	ug/L	5.0	0.16	1		11/14/16 11:48	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 11:48	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 11:48	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 11:48	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 11:48	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 11:48	75-00-3	
Chloroform	**0.16J**	ug/L	1.0	0.14	1		11/14/16 11:48	67-66-3	
Chloromethane	**13.6**	ug/L	1.0	0.080	1		11/14/16 11:48	74-87-3	
Dibromochloromethane	**2.5**	ug/L	1.0	0.21	1		11/14/16 11:48	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 11:48	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 11:48	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 11:48	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/14/16 11:48	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 11:48	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 11:48	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 11:48	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 11:48	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 11:48	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 11:48	591-78-6	
Methylene chloride	**0.24J**	ug/L	1.0	0.15	1		11/14/16 11:48	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 11:48	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 11:48	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 11:48	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 11:48	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 11:48	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 11:48	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 11:48	79-00-5	
Trichloroethene	**4.2**	ug/L	1.0	0.17	1		11/14/16 11:48	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/14/16 11:48	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 11:48	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	77-130		1		11/14/16 11:48	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	81-127		1		11/14/16 11:48	17060-07-0	
Toluene-d8 (S)	100	%	80-120		1		11/14/16 11:48	2037-26-5	
Preservation pH	**3.0**		0.10	0.10	1		11/14/16 11:48		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-17S-201611 **Lab ID: 60231848008** Collected: 11/08/16 12:40 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	**11.9**	ug/L	10.0	1.9	1		11/14/16 04:58	67-64-1	
Benzene	**0.17J**	ug/L	1.0	0.060	1		11/14/16 04:58	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 04:58	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/14/16 04:58	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/14/16 04:58	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 04:58	78-93-3	
Carbon disulfide	**0.37J**	ug/L	5.0	0.12	1		11/14/16 04:58	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 04:58	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 04:58	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 04:58	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/14/16 04:58	67-66-3	
Chloromethane	**0.50J**	ug/L	1.0	0.080	1		11/14/16 04:58	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 04:58	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 04:58	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 04:58	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 04:58	75-35-4	
cis-1,2-Dichloroethene	**0.49J**	ug/L	1.0	0.080	1		11/14/16 04:58	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 04:58	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 04:58	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 04:58	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 04:58	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 04:58	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 04:58	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 04:58	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 04:58	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 04:58	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 04:58	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 04:58	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 04:58	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 04:58	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 04:58	79-00-5	
Trichloroethene	**50.9**	ug/L	1.0	0.17	1		11/14/16 04:58	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/14/16 04:58	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 04:58	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	102	%	77-130		1		11/14/16 04:58	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	81-127		1		11/14/16 04:58	17060-07-0	
Toluene-d8 (S)	99	%	80-120		1		11/14/16 04:58	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/14/16 04:58		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: DUP-07-201611 **Lab ID: 60231848009** Collected: 11/08/16 10:35 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/14/16 05:13	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/14/16 05:13	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 05:13	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/14/16 05:13	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/14/16 05:13	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 05:13	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 05:13	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 05:13	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 05:13	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 05:13	75-00-3	
Chloroform	**0.16J**	ug/L	1.0	0.14	1		11/14/16 05:13	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/14/16 05:13	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 05:13	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 05:13	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 05:13	107-06-2	
1,1-Dichloroethene	**1.7**	ug/L	1.0	0.20	1		11/14/16 05:13	75-35-4	
cis-1,2-Dichloroethene	**24.3**	ug/L	1.0	0.080	1		11/14/16 05:13	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 05:13	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 05:13	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 05:13	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 05:13	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 05:13	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 05:13	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 05:13	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 05:13	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 05:13	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 05:13	79-34-5	
Tetrachloroethene	**0.18J**	ug/L	1.0	0.10	1		11/14/16 05:13	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 05:13	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 05:13	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 05:13	79-00-5	
Trichloroethene	**453**	ug/L	5.0	0.85	5		11/15/16 19:09	79-01-6	
Vinyl chloride	**0.45J**	ug/L	1.0	0.13	1		11/14/16 05:13	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 05:13	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	101	%	77-130		1		11/14/16 05:13	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	81-127		1		11/14/16 05:13	17060-07-0	
Toluene-d8 (S)	101	%	80-120		1		11/14/16 05:13	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/14/16 05:13		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-57R-201611 **Lab ID: 60231848010** Collected: 11/08/16 10:35 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/14/16 05:27	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/14/16 05:27	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 05:27	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/14/16 05:27	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/14/16 05:27	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 05:27	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 05:27	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 05:27	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 05:27	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 05:27	75-00-3	
Chloroform	**0.14J**	ug/L	1.0	0.14	1		11/14/16 05:27	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/14/16 05:27	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 05:27	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 05:27	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 05:27	107-06-2	
1,1-Dichloroethene	**1.9**	ug/L	1.0	0.20	1		11/14/16 05:27	75-35-4	
cis-1,2-Dichloroethene	**23.0**	ug/L	1.0	0.080	1		11/14/16 05:27	156-59-2	
trans-1,2-Dichloroethene	**0.23J**	ug/L	1.0	0.20	1		11/14/16 05:27	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 05:27	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 05:27	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 05:27	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 05:27	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 05:27	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 05:27	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 05:27	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 05:27	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 05:27	79-34-5	
Tetrachloroethene	**0.18J**	ug/L	1.0	0.10	1		11/14/16 05:27	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 05:27	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 05:27	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 05:27	79-00-5	
Trichloroethene	**441**	ug/L	5.0	0.85	5		11/16/16 00:57	79-01-6	
Vinyl chloride	**0.44J**	ug/L	1.0	0.13	1		11/14/16 05:27	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 05:27	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	101	%	77-130		1		11/14/16 05:27	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	81-127		1		11/14/16 05:27	17060-07-0	
Toluene-d8 (S)	98	%	80-120		1		11/14/16 05:27	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/14/16 05:27		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-56R-201611 **Lab ID: 60231848011** Collected: 11/08/16 09:05 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/14/16 05:42	67-64-1	
Benzene	**0.17J**	ug/L	1.0	0.060	1		11/14/16 05:42	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 05:42	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/14/16 05:42	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/14/16 05:42	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 05:42	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 05:42	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 05:42	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 05:42	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 05:42	75-00-3	
Chloroform	**0.31J**	ug/L	1.0	0.14	1		11/14/16 05:42	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/14/16 05:42	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 05:42	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 05:42	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 05:42	107-06-2	
1,1-Dichloroethene	**1.9**	ug/L	1.0	0.20	1		11/14/16 05:42	75-35-4	
cis-1,2-Dichloroethene	**27.8**	ug/L	1.0	0.080	1		11/14/16 05:42	156-59-2	
trans-1,2-Dichloroethene	**0.35J**	ug/L	1.0	0.20	1		11/14/16 05:42	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 05:42	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 05:42	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 05:42	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 05:42	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 05:42	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 05:42	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 05:42	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 05:42	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 05:42	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 05:42	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 05:42	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 05:42	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 05:42	79-00-5	
Trichloroethene	**679**	ug/L	10.0	1.7	10		11/16/16 01:11	79-01-6	
Vinyl chloride	**0.37J**	ug/L	1.0	0.13	1		11/14/16 05:42	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 05:42	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	77-130		1		11/14/16 05:42	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	81-127		1		11/14/16 05:42	17060-07-0	
Toluene-d8 (S)	100	%	80-120		1		11/14/16 05:42	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/14/16 05:42		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-176-201611 **Lab ID: 60231848012** Collected: 11/08/16 14:55 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/16/16 22:16	67-64-1	
Benzene	**0.11J**	ug/L	1.0	0.060	1		11/16/16 22:16	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 22:16	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 22:16	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 22:16	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 22:16	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 22:16	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 22:16	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 22:16	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 22:16	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/16/16 22:16	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 22:16	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 22:16	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 22:16	75-34-3	
1,2-Dichloroethane	**0.12J**	ug/L	1.0	0.12	1		11/16/16 22:16	107-06-2	
1,1-Dichloroethene	**3.1**	ug/L	1.0	0.20	1		11/16/16 22:16	75-35-4	
cis-1,2-Dichloroethene	**202**	ug/L	10.0	0.80	10		11/14/16 05:56	156-59-2	
trans-1,2-Dichloroethene	**1.8**	ug/L	1.0	0.20	1		11/16/16 22:16	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 22:16	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 22:16	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 22:16	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 22:16	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 22:16	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/16/16 22:16	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/16/16 22:16	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 22:16	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 22:16	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 22:16	127-18-4	
Toluene	**0.31J**	ug/L	1.0	0.17	1		11/16/16 22:16	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 22:16	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 22:16	79-00-5	L3
Trichloroethene	**320**	ug/L	10.0	1.7	10		11/14/16 05:56	79-01-6	
Vinyl chloride	**1.6**	ug/L	1.0	0.13	1		11/16/16 22:16	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 22:16	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	77-130		1		11/16/16 22:16	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	81-127		1		11/16/16 22:16	17060-07-0	
Toluene-d8 (S)	94	%	80-120		1		11/16/16 22:16	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 22:16		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-87-201611 **Lab ID: 60231848013** Collected: 11/08/16 17:00 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	**507**	ug/L	50.0	8.8	1	11/11/16 11:45	11/14/16 17:05	7439-89-6	
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/16/16 22:45	67-64-1	
Benzene	**0.12J**	ug/L	1.0	0.060	1		11/16/16 22:45	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 22:45	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 22:45	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 22:45	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 22:45	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 22:45	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 22:45	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 22:45	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 22:45	75-00-3	
Chloroform	**0.32J**	ug/L	1.0	0.14	1		11/16/16 22:45	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 22:45	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 22:45	124-48-1	
1,1-Dichloroethane	**2.3**	ug/L	1.0	0.050	1		11/16/16 22:45	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 22:45	107-06-2	
1,1-Dichloroethene	**6.2**	ug/L	1.0	0.20	1		11/16/16 22:45	75-35-4	
cis-1,2-Dichloroethene	**51.9**	ug/L	1.0	0.080	1		11/16/16 22:45	156-59-2	
trans-1,2-Dichloroethene	**0.96J**	ug/L	1.0	0.20	1		11/16/16 22:45	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 22:45	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 22:45	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 22:45	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 22:45	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 22:45	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/16/16 22:45	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/16/16 22:45	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 22:45	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 22:45	79-34-5	
Tetrachloroethene	**4.7**	ug/L	1.0	0.10	1		11/16/16 22:45	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/16/16 22:45	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 22:45	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 22:45	79-00-5	L3
Trichloroethene	**701**	ug/L	20.0	3.4	20		11/14/16 06:11	79-01-6	
Vinyl chloride	**0.25J**	ug/L	1.0	0.13	1		11/16/16 22:45	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 22:45	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	109	%	77-130		1		11/16/16 22:45	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	81-127		1		11/16/16 22:45	17060-07-0	
Toluene-d8 (S)	93	%	80-120		1		11/16/16 22:45	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 22:45		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4								
Iron, Ferric	**0.46**	mg/L	0.20		1		11/15/16 00:00	7439-89-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-87-201611 **Lab ID: 60231848013** Collected: 11/08/16 17:00 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D								
Sulfide, Total	ND	mg/L	0.050	0.019	1		11/14/16 12:08	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	**15.3**	mg/L	1.0	0.15	1		11/16/16 16:31	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	**3.0**	mg/L	0.10	0.012	1		11/09/16 15:17		
Nitrogen, Nitrite	ND	mg/L	0.10	0.010	1		11/09/16 15:17		
Nitrogen, NO2 plus NO3	**3.0**	mg/L	0.10	0.012	1		11/09/16 15:17		
5310C TOC	Analytical Method: SM 5310C								
Total Organic Carbon	**0.80J**	mg/L	1.0	0.054	1		11/12/16 15:07	7440-44-0	B

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-89-201611 **Lab ID: 60231848014** Collected: 11/08/16 15:15 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	**40.4J**	ug/L	50.0	8.8	1	11/11/16 11:45	11/14/16 17:07	7439-89-6	
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/15/16 22:17	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/15/16 22:17	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/15/16 22:17	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/15/16 22:17	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/15/16 22:17	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/15/16 22:17	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/15/16 22:17	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/15/16 22:17	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/15/16 22:17	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/15/16 22:17	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/15/16 22:17	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/15/16 22:17	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/15/16 22:17	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/15/16 22:17	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/15/16 22:17	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 22:17	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/15/16 22:17	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 22:17	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/15/16 22:17	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/15/16 22:17	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/15/16 22:17	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/15/16 22:17	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/15/16 22:17	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/15/16 22:17	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/15/16 22:17	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/15/16 22:17	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/15/16 22:17	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/15/16 22:17	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/15/16 22:17	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/15/16 22:17	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/15/16 22:17	79-00-5	
Trichloroethene	**13.4**	ug/L	1.0	0.17	1		11/15/16 22:17	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/15/16 22:17	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/15/16 22:17	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	77-130		1		11/15/16 22:17	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	81-127		1		11/15/16 22:17	17060-07-0	
Toluene-d8 (S)	96	%	80-120		1		11/15/16 22:17	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/15/16 22:17		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4								
Iron, Ferric	ND	mg/L	0.20		1		11/15/16 00:00	7439-89-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-89-201611 **Lab ID: 60231848014** Collected: 11/08/16 15:15 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D								
Sulfide, Total	ND	mg/L	0.050	0.019	1		11/14/16 12:09	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	**12.7**	mg/L	1.0	0.15	1		11/16/16 16:45	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	**108**	mg/L	5.0	0.60	50		11/09/16 15:30		
Nitrogen, Nitrite	ND	mg/L	5.0	0.52	50		11/09/16 15:30		
Nitrogen, NO2 plus NO3	**108**	mg/L	5.0	0.60	50		11/09/16 15:30		
5310C TOC	Analytical Method: SM 5310C								
Total Organic Carbon	**1.9**	mg/L	1.0	0.054	1		11/12/16 15:20	7440-44-0	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: TMW-11-201611 **Lab ID: 60231848015** Collected: 11/08/16 09:27 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	**7730**	ug/L	50.0	8.8	1	11/11/16 11:45	11/14/16 17:09	7439-89-6	
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	**5.0J**	ug/L	10.0	1.9	1		11/16/16 22:31	67-64-1	
Benzene	**0.10J**	ug/L	1.0	0.060	1		11/16/16 22:31	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 22:31	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 22:31	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 22:31	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 22:31	78-93-3	
Carbon disulfide	**0.26J**	ug/L	5.0	0.12	1		11/16/16 22:31	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 22:31	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 22:31	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 22:31	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/16/16 22:31	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 22:31	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 22:31	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 22:31	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 22:31	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 22:31	75-35-4	
cis-1,2-Dichloroethene	**4.7**	ug/L	1.0	0.080	1		11/16/16 22:31	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 22:31	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 22:31	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 22:31	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 22:31	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 22:31	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 22:31	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/16/16 22:31	75-09-2	
4-Methyl-2-pentanone (MIBK)	**1.1J**	ug/L	10.0	0.42	1		11/16/16 22:31	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 22:31	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 22:31	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 22:31	127-18-4	
Toluene	**0.87J**	ug/L	1.0	0.17	1		11/16/16 22:31	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 22:31	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 22:31	79-00-5	L3
Trichloroethene	**1.2**	ug/L	1.0	0.17	1		11/16/16 22:31	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/16/16 22:31	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 22:31	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	77-130		1		11/16/16 22:31	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	81-127		1		11/16/16 22:31	17060-07-0	
Toluene-d8 (S)	98	%	80-120		1		11/16/16 22:31	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 22:31		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4								
Iron, Ferric	**4.4**	mg/L	0.20		1		11/15/16 00:00	7439-89-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: TMW-11-201611 **Lab ID: 60231848015** Collected: 11/08/16 09:27 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D								
Sulfide, Total	ND	mg/L	0.050	0.019	1		11/14/16 12:09	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	**0.68J**	mg/L	1.0	0.15	1		11/16/16 17:00	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	ND	mg/L	0.10	0.012	1		11/09/16 15:21		
Nitrogen, Nitrite	**0.019J**	mg/L	0.10	0.010	1		11/09/16 15:21		
Nitrogen, NO2 plus NO3	ND	mg/L	0.10	0.012	1		11/09/16 15:21		
5310C TOC	Analytical Method: SM 5310C								
Total Organic Carbon	**29.4**	mg/L	3.0	0.16	3		11/15/16 13:45	7440-44-0	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: DUP-05-201611 **Lab ID: 60231848016** Collected: 11/08/16 17:00 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/16/16 00:13	67-64-1	
Benzene	**0.11J**	ug/L	1.0	0.060	1		11/16/16 00:13	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 00:13	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 00:13	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 00:13	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 00:13	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 00:13	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 00:13	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 00:13	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 00:13	75-00-3	
Chloroform	**0.36J**	ug/L	1.0	0.14	1		11/16/16 00:13	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 00:13	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 00:13	124-48-1	
1,1-Dichloroethane	**2.2**	ug/L	1.0	0.050	1		11/16/16 00:13	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 00:13	107-06-2	
1,1-Dichloroethene	**6.4**	ug/L	1.0	0.20	1		11/16/16 00:13	75-35-4	
cis-1,2-Dichloroethene	**49.0**	ug/L	1.0	0.080	1		11/16/16 00:13	156-59-2	
trans-1,2-Dichloroethene	**0.86J**	ug/L	1.0	0.20	1		11/16/16 00:13	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 00:13	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 00:13	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 00:13	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 00:13	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 00:13	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/16/16 00:13	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/16/16 00:13	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 00:13	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 00:13	79-34-5	
Tetrachloroethene	**5.1**	ug/L	1.0	0.10	1		11/16/16 00:13	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/16/16 00:13	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 00:13	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 00:13	79-00-5	
Trichloroethene	**948**	ug/L	10.0	1.7	10		11/16/16 23:29	79-01-6	
Vinyl chloride	**0.39J**	ug/L	1.0	0.13	1		11/16/16 00:13	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 00:13	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	104	%	77-130		1		11/16/16 00:13	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	81-127		1		11/16/16 00:13	17060-07-0	
Toluene-d8 (S)	97	%	80-120		1		11/16/16 00:13	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 00:13		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-190-201611 **Lab ID: 60231848017** Collected: 11/08/16 15:15 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	**2.6J**	ug/L	10.0	1.9	1		11/15/16 22:31	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/15/16 22:31	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/15/16 22:31	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/15/16 22:31	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/15/16 22:31	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/15/16 22:31	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/15/16 22:31	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/15/16 22:31	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/15/16 22:31	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/15/16 22:31	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/15/16 22:31	67-66-3	
Chloromethane	**0.52J**	ug/L	1.0	0.080	1		11/15/16 22:31	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/15/16 22:31	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/15/16 22:31	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/15/16 22:31	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 22:31	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/15/16 22:31	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 22:31	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/15/16 22:31	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/15/16 22:31	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/15/16 22:31	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/15/16 22:31	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/15/16 22:31	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/15/16 22:31	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/15/16 22:31	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/15/16 22:31	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/15/16 22:31	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/15/16 22:31	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/15/16 22:31	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/15/16 22:31	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/15/16 22:31	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/15/16 22:31	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/15/16 22:31	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/15/16 22:31	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	93	%	77-130		1		11/15/16 22:31	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	81-127		1		11/15/16 22:31	17060-07-0	
Toluene-d8 (S)	93	%	80-120		1		11/15/16 22:31	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/15/16 22:31		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-98-201611 **Lab ID: 60231848018** Collected: 11/08/16 13:15 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/15/16 22:46	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/15/16 22:46	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/15/16 22:46	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/15/16 22:46	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/15/16 22:46	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/15/16 22:46	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/15/16 22:46	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/15/16 22:46	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/15/16 22:46	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/15/16 22:46	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/15/16 22:46	67-66-3	
Chloromethane	**0.39J**	ug/L	1.0	0.080	1		11/15/16 22:46	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/15/16 22:46	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/15/16 22:46	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/15/16 22:46	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 22:46	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/15/16 22:46	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 22:46	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/15/16 22:46	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/15/16 22:46	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/15/16 22:46	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/15/16 22:46	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/15/16 22:46	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/15/16 22:46	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/15/16 22:46	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/15/16 22:46	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/15/16 22:46	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/15/16 22:46	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/15/16 22:46	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/15/16 22:46	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/15/16 22:46	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/15/16 22:46	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/15/16 22:46	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/15/16 22:46	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	77-130		1		11/15/16 22:46	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	81-127		1		11/15/16 22:46	17060-07-0	
Toluene-d8 (S)	94	%	80-120		1		11/15/16 22:46	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/15/16 22:46		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-191-201611 **Lab ID: 60231848019** Collected: 11/08/16 16:35 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/15/16 23:00	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/15/16 23:00	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/15/16 23:00	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/15/16 23:00	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/15/16 23:00	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/15/16 23:00	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/15/16 23:00	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/15/16 23:00	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/15/16 23:00	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/15/16 23:00	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/15/16 23:00	67-66-3	
Chloromethane	**0.32J**	ug/L	1.0	0.080	1		11/15/16 23:00	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/15/16 23:00	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/15/16 23:00	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/15/16 23:00	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 23:00	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/15/16 23:00	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 23:00	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/15/16 23:00	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/15/16 23:00	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/15/16 23:00	10061-02-6	R1
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/15/16 23:00	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/15/16 23:00	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/15/16 23:00	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/15/16 23:00	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/15/16 23:00	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/15/16 23:00	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/15/16 23:00	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/15/16 23:00	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/15/16 23:00	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/15/16 23:00	79-00-5	R1
Trichloroethene	ND	ug/L	1.0	0.17	1		11/15/16 23:00	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/15/16 23:00	75-01-4	R1
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/15/16 23:00	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	98	%	77-130		1		11/15/16 23:00	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	81-127		1		11/15/16 23:00	17060-07-0	
Toluene-d8 (S)	100	%	80-120		1		11/15/16 23:00	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/15/16 23:00		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-97-201611 **Lab ID: 60231848020** Collected: 11/08/16 11:25 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/15/16 23:15	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/15/16 23:15	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/15/16 23:15	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/15/16 23:15	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/15/16 23:15	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/15/16 23:15	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/15/16 23:15	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/15/16 23:15	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/15/16 23:15	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/15/16 23:15	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/15/16 23:15	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/15/16 23:15	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/15/16 23:15	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/15/16 23:15	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/15/16 23:15	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 23:15	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/15/16 23:15	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 23:15	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/15/16 23:15	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/15/16 23:15	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/15/16 23:15	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/15/16 23:15	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/15/16 23:15	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/15/16 23:15	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/15/16 23:15	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/15/16 23:15	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/15/16 23:15	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/15/16 23:15	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/15/16 23:15	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/15/16 23:15	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/15/16 23:15	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/15/16 23:15	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/15/16 23:15	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/15/16 23:15	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	77-130		1		11/15/16 23:15	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	81-127		1		11/15/16 23:15	17060-07-0	
Toluene-d8 (S)	96	%	80-120		1		11/15/16 23:15	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/15/16 23:15		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-96-201611 **Lab ID: 60231848021** Collected: 11/08/16 10:15 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/15/16 23:30	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/15/16 23:30	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/15/16 23:30	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/15/16 23:30	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/15/16 23:30	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/15/16 23:30	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/15/16 23:30	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/15/16 23:30	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/15/16 23:30	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/15/16 23:30	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/15/16 23:30	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/15/16 23:30	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/15/16 23:30	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/15/16 23:30	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/15/16 23:30	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 23:30	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/15/16 23:30	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 23:30	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/15/16 23:30	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/15/16 23:30	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/15/16 23:30	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/15/16 23:30	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/15/16 23:30	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/15/16 23:30	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/15/16 23:30	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/15/16 23:30	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/15/16 23:30	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/15/16 23:30	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/15/16 23:30	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/15/16 23:30	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/15/16 23:30	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/15/16 23:30	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/15/16 23:30	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/15/16 23:30	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	101	%	77-130		1		11/15/16 23:30	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	81-127		1		11/15/16 23:30	17060-07-0	
Toluene-d8 (S)	94	%	80-120		1		11/15/16 23:30	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/15/16 23:30		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-184-201611 **Lab ID: 60231848022** Collected: 11/08/16 08:25 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/15/16 23:44	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/15/16 23:44	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/15/16 23:44	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/15/16 23:44	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/15/16 23:44	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/15/16 23:44	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/15/16 23:44	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/15/16 23:44	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/15/16 23:44	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/15/16 23:44	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/15/16 23:44	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/15/16 23:44	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/15/16 23:44	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/15/16 23:44	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/15/16 23:44	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 23:44	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/15/16 23:44	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 23:44	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/15/16 23:44	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/15/16 23:44	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/15/16 23:44	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/15/16 23:44	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/15/16 23:44	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/15/16 23:44	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/15/16 23:44	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/15/16 23:44	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/15/16 23:44	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/15/16 23:44	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/15/16 23:44	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/15/16 23:44	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/15/16 23:44	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/15/16 23:44	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/15/16 23:44	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/15/16 23:44	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	77-130		1		11/15/16 23:44	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	81-127		1		11/15/16 23:44	17060-07-0	
Toluene-d8 (S)	106	%	80-120		1		11/15/16 23:44	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/15/16 23:44		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: EB-02-201611 **Lab ID: 60231848023** Collected: 11/08/16 17:00 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/15/16 23:59	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/15/16 23:59	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/15/16 23:59	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/15/16 23:59	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/15/16 23:59	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/15/16 23:59	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/15/16 23:59	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/15/16 23:59	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/15/16 23:59	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/15/16 23:59	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/15/16 23:59	67-66-3	
Chloromethane	**0.25J**	ug/L	1.0	0.080	1		11/15/16 23:59	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/15/16 23:59	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/15/16 23:59	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/15/16 23:59	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 23:59	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/15/16 23:59	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 23:59	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/15/16 23:59	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/15/16 23:59	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/15/16 23:59	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/15/16 23:59	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/15/16 23:59	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/15/16 23:59	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/15/16 23:59	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/15/16 23:59	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/15/16 23:59	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/15/16 23:59	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/15/16 23:59	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/15/16 23:59	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/15/16 23:59	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/15/16 23:59	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/15/16 23:59	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/15/16 23:59	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	98	%	77-130		1		11/15/16 23:59	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	81-127		1		11/15/16 23:59	17060-07-0	
Toluene-d8 (S)	87	%	80-120		1		11/15/16 23:59	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/15/16 23:59		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: ITMW-10-201611 **Lab ID: 60231848024** Collected: 11/08/16 09:17 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	**133**	ug/L	50.0	8.8	1	11/11/16 11:45	11/14/16 17:12	7439-89-6	
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/16/16 23:00	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/16/16 23:00	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 23:00	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 23:00	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 23:00	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 23:00	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 23:00	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 23:00	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 23:00	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 23:00	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/16/16 23:00	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 23:00	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 23:00	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 23:00	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 23:00	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 23:00	75-35-4	
cis-1,2-Dichloroethene	**4.4**	ug/L	1.0	0.080	1		11/16/16 23:00	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 23:00	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 23:00	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 23:00	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 23:00	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 23:00	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 23:00	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/16/16 23:00	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/16/16 23:00	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 23:00	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 23:00	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 23:00	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/16/16 23:00	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 23:00	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 23:00	79-00-5	L3
Trichloroethene	**95.4**	ug/L	1.0	0.17	1		11/16/16 23:00	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/16/16 23:00	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 23:00	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	95	%	77-130		1		11/16/16 23:00	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	81-127		1		11/16/16 23:00	17060-07-0	
Toluene-d8 (S)	92	%	80-120		1		11/16/16 23:00	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 23:00		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4								
Iron, Ferric	ND	mg/L	0.20		1		11/15/16 00:00	7439-89-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: ITMW-10-201611 **Lab ID: 60231848024** Collected: 11/08/16 09:17 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D								
Sulfide, Total	ND	mg/L	0.050	0.019	1		11/14/16 12:09	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	**2.4**	mg/L	1.0	0.15	1		11/16/16 17:42	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	**1.1**	mg/L	0.10	0.012	1		11/09/16 15:09		
Nitrogen, Nitrite	**0.97**	mg/L	0.10	0.010	1		11/09/16 15:09		
Nitrogen, NO2 plus NO3	**2.1**	mg/L	0.10	0.012	1		11/09/16 15:09		
5310C TOC	Analytical Method: SM 5310C								
Total Organic Carbon	**0.75J**	mg/L	1.0	0.054	1		11/15/16 12:30	7440-44-0	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: ITMW-9-201611 **Lab ID: 60231848025** Collected: 11/08/16 16:00 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	**22.7J**	ug/L	50.0	8.8	1	11/11/16 11:45	11/14/16 17:14	7439-89-6	
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/16/16 09:26	67-64-1	R1
Benzene	ND	ug/L	1.0	0.060	1		11/16/16 09:26	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 09:26	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 09:26	75-25-2	L3
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 09:26	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 09:26	78-93-3	R1
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 09:26	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 09:26	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 09:26	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 09:26	75-00-3	
Chloroform	**0.36J**	ug/L	1.0	0.14	1		11/16/16 09:26	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 09:26	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 09:26	124-48-1	M1
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 09:26	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 09:26	107-06-2	
1,1-Dichloroethene	**0.48J**	ug/L	1.0	0.20	1		11/16/16 09:26	75-35-4	
cis-1,2-Dichloroethene	**73.0**	ug/L	1.0	0.080	1		11/16/16 09:26	156-59-2	M1
trans-1,2-Dichloroethene	**0.88J**	ug/L	1.0	0.20	1		11/16/16 09:26	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 09:26	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 09:26	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 09:26	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 09:26	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 09:26	591-78-6	
Methylene chloride	**0.24J**	ug/L	1.0	0.15	1		11/16/16 09:26	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/16/16 09:26	108-10-1	R1
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 09:26	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 09:26	79-34-5	L3
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 09:26	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/16/16 09:26	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 09:26	71-55-6	R1
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 09:26	79-00-5	
Vinyl chloride	**0.17J**	ug/L	1.0	0.13	1		11/16/16 09:26	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 09:26	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	77-130		1		11/16/16 09:26	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	81-127		1		11/16/16 09:26	17060-07-0	
Toluene-d8 (S)	85	%	80-120		1		11/16/16 09:26	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 09:26		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4								
Iron, Ferric	ND	mg/L	0.20		1		11/15/16 00:00	7439-89-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: ITMW-9-201611 **Lab ID: 60231848025** Collected: 11/08/16 16:00 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D								
Sulfide, Total	ND	mg/L	0.050	0.019	1		11/14/16 12:10	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	**19.7**	mg/L	1.0	0.15	1		11/16/16 17:56	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	**12.4**	mg/L	0.50	0.060	5		11/09/16 15:26		M1
Nitrogen, Nitrite	ND	mg/L	0.50	0.052	5		11/09/16 15:26		
Nitrogen, NO2 plus NO3	**12.4**	mg/L	0.50	0.060	5		11/09/16 15:26		
5310C TOC	Analytical Method: SM 5310C								
Total Organic Carbon	**0.50J**	mg/L	1.0	0.054	1		11/15/16 12:42	7440-44-0	B

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: TB-1-201611 **Lab ID: 60231848026** Collected: 11/08/16 08:25 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/15/16 20:50	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/15/16 20:50	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/15/16 20:50	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/15/16 20:50	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/15/16 20:50	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/15/16 20:50	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/15/16 20:50	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/15/16 20:50	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/15/16 20:50	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/15/16 20:50	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/15/16 20:50	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/15/16 20:50	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/15/16 20:50	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/15/16 20:50	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/15/16 20:50	107-06-2	
1,1-Dichloroethene	**0.23J**	ug/L	1.0	0.20	1		11/15/16 20:50	75-35-4	B
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/15/16 20:50	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 20:50	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/15/16 20:50	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/15/16 20:50	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/15/16 20:50	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/15/16 20:50	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/15/16 20:50	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/15/16 20:50	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/15/16 20:50	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/15/16 20:50	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/15/16 20:50	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/15/16 20:50	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/15/16 20:50	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/15/16 20:50	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/15/16 20:50	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/15/16 20:50	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/15/16 20:50	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/15/16 20:50	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	77-130		1		11/15/16 20:50	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	81-127		1		11/15/16 20:50	17060-07-0	
Toluene-d8 (S)	87	%	80-120		1		11/15/16 20:50	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/15/16 20:50		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: TB-3-201611 **Lab ID: 60231848027** Collected: 11/08/16 08:25 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/15/16 21:05	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/15/16 21:05	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/15/16 21:05	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/15/16 21:05	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/15/16 21:05	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/15/16 21:05	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/15/16 21:05	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/15/16 21:05	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/15/16 21:05	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/15/16 21:05	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/15/16 21:05	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/15/16 21:05	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/15/16 21:05	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/15/16 21:05	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/15/16 21:05	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 21:05	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/15/16 21:05	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 21:05	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/15/16 21:05	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/15/16 21:05	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/15/16 21:05	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/15/16 21:05	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/15/16 21:05	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/15/16 21:05	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/15/16 21:05	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/15/16 21:05	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/15/16 21:05	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/15/16 21:05	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/15/16 21:05	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/15/16 21:05	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/15/16 21:05	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/15/16 21:05	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/15/16 21:05	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/15/16 21:05	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	77-130		1		11/15/16 21:05	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	81-127		1		11/15/16 21:05	17060-07-0	
Toluene-d8 (S)	99	%	80-120		1		11/15/16 21:05	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/15/16 21:05		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

QC Batch: 454539 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET
Associated Lab Samples: 60231848013, 60231848014, 60231848015, 60231848024, 60231848025

METHOD BLANK: 1861302 Matrix: Water
Associated Lab Samples: 60231848013, 60231848014, 60231848015, 60231848024, 60231848025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron	ug/L	ND	50.0	8.8	11/15/16 12:51	

LABORATORY CONTROL SAMPLE: 1861303

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron	ug/L	10000	10000	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1861304 1861305

Parameter	Units	60231955004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron	ug/L	5940	10000	10000	15500	15000	96	91	75-125	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1861306 1861307

Parameter	Units	60231848025 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron	ug/L	22.7J	10000	10000	9390	9720	94	97	75-125	3	20	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

QC Batch: 454535 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60231848001, 60231848002, 60231848003, 60231848006, 60231848008, 60231848009, 60231848010, 60231848011, 60231848012, 60231848013

METHOD BLANK: 1861274 Matrix: Water
Associated Lab Samples: 60231848001, 60231848002, 60231848003, 60231848006, 60231848008, 60231848009, 60231848010, 60231848011, 60231848012, 60231848013

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	0.11	11/14/16 01:50	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.15	11/14/16 01:50	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.20	11/14/16 01:50	
1,1-Dichloroethane	ug/L	ND	1.0	0.050	11/14/16 01:50	
1,1-Dichloroethene	ug/L	ND	1.0	0.20	11/14/16 01:50	
1,2-Dichloroethane	ug/L	ND	1.0	0.12	11/14/16 01:50	
1,2-Dichloropropane	ug/L	ND	1.0	0.16	11/14/16 01:50	
2-Butanone (MEK)	ug/L	ND	10.0	0.59	11/14/16 01:50	
2-Hexanone	ug/L	ND	10.0	1.2	11/14/16 01:50	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	0.42	11/14/16 01:50	
Acetone	ug/L	ND	10.0	1.9	11/14/16 01:50	
Benzene	ug/L	ND	1.0	0.060	11/14/16 01:50	
Bromodichloromethane	ug/L	ND	1.0	0.19	11/14/16 01:50	
Bromoform	ug/L	ND	1.0	0.070	11/14/16 01:50	
Bromomethane	ug/L	ND	5.0	0.16	11/14/16 01:50	
Carbon disulfide	ug/L	ND	5.0	0.12	11/14/16 01:50	
Carbon tetrachloride	ug/L	ND	1.0	0.18	11/14/16 01:50	
Chlorobenzene	ug/L	ND	1.0	0.21	11/14/16 01:50	
Chloroethane	ug/L	ND	1.0	0.15	11/14/16 01:50	
Chloroform	ug/L	ND	1.0	0.14	11/14/16 01:50	
Chloromethane	ug/L	ND	1.0	0.080	11/14/16 01:50	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.080	11/14/16 01:50	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.14	11/14/16 01:50	
Dibromochloromethane	ug/L	ND	1.0	0.21	11/14/16 01:50	
Ethylbenzene	ug/L	ND	1.0	0.18	11/14/16 01:50	
Methylene chloride	ug/L	ND	1.0	0.15	11/14/16 01:50	
Styrene	ug/L	ND	1.0	0.12	11/14/16 01:50	
Tetrachloroethene	ug/L	ND	1.0	0.10	11/14/16 01:50	
Toluene	ug/L	ND	1.0	0.17	11/14/16 01:50	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.20	11/14/16 01:50	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.12	11/14/16 01:50	
Trichloroethene	ug/L	ND	1.0	0.17	11/14/16 01:50	
Vinyl chloride	ug/L	ND	1.0	0.13	11/14/16 01:50	
Xylene (Total)	ug/L	ND	3.0	0.42	11/14/16 01:50	
1,2-Dichloroethane-d4 (S)	%	90	81-127		11/14/16 01:50	
4-Bromofluorobenzene (S)	%	98	77-130		11/14/16 01:50	
Toluene-d8 (S)	%	98	80-120		11/14/16 01:50	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

LABORATORY CONTROL SAMPLE: 1861275

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	20.7	104	81-116	
1,1,2,2-Tetrachloroethane	ug/L	20	20.5	103	72-117	
1,1,2-Trichloroethane	ug/L	20	21.1	105	79-108	
1,1-Dichloroethane	ug/L	20	20.5	102	83-117	
1,1-Dichloroethene	ug/L	20	20.3	101	74-114	
1,2-Dichloroethane	ug/L	20	19.3	97	72-116	
1,2-Dichloropropane	ug/L	20	20.1	100	80-120	
2-Butanone (MEK)	ug/L	100	86.3	86	67-129	
2-Hexanone	ug/L	100	96.7	97	70-128	
4-Methyl-2-pentanone (MIBK)	ug/L	100	91.6	92	80-120	
Acetone	ug/L	100	79.7	80	56-142	
Benzene	ug/L	20	21.1	106	79-116	
Bromodichloromethane	ug/L	20	21.4	107	80-120	
Bromoform	ug/L	20	19.8	99	73-114	
Bromomethane	ug/L	20	15.6	78	49-153	
Carbon disulfide	ug/L	20	19.5	97	82-121	
Carbon tetrachloride	ug/L	20	19.5	97	80-116	
Chlorobenzene	ug/L	20	20.1	100	80-120	
Chloroethane	ug/L	20	21.4	107	67-124	
Chloroform	ug/L	20	19.8	99	79-120	
Chloromethane	ug/L	20	15.9	80	10-192	
cis-1,2-Dichloroethene	ug/L	20	19.5	97	80-120	
cis-1,3-Dichloropropene	ug/L	20	18.9	94	80-120	
Dibromochloromethane	ug/L	20	22.1	110	80-120	
Ethylbenzene	ug/L	20	19.8	99	80-120	
Methylene chloride	ug/L	20	17.3	86	80-120	
Styrene	ug/L	20	21.0	105	80-120	
Tetrachloroethene	ug/L	20	21.7	109	80-120	
Toluene	ug/L	20	22.0	110	80-120	
trans-1,2-Dichloroethene	ug/L	20	20.0	100	78-108	
trans-1,3-Dichloropropene	ug/L	20	19.2	96	85-120	
Trichloroethene	ug/L	20	19.1	96	76-114	
Vinyl chloride	ug/L	20	19.4	97	69-129	
Xylene (Total)	ug/L	60	61.3	102	80-120	
1,2-Dichloroethane-d4 (S)	%			97	81-127	
4-Bromofluorobenzene (S)	%			97	77-130	
Toluene-d8 (S)	%			104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1861276 1861277

Parameter	Units	60231721006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	21.4	21.6	107	108	70-135	1	12	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	19.7	19.6	99	98	54-136	0	15	
1,1,2-Trichloroethane	ug/L	ND	20	20	19.4	18.7	97	94	70-113	4	15	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1861276 1861277

Parameter	Units	60231721006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethane	ug/L	ND	20	20	21.6	21.1	108	106	80-122	2	13	
1,1-Dichloroethene	ug/L	ND	20	20	20.8	22.3	104	111	73-118	7	14	
1,2-Dichloroethane	ug/L	ND	20	20	19.5	19.9	98	100	54-137	2	41	
1,2-Dichloropropane	ug/L	ND	20	20	20.6	20.5	103	103	77-116	0	12	
2-Butanone (MEK)	ug/L	ND	100	100	83.1	82.4	83	82	30-127	1	18	
2-Hexanone	ug/L	ND	100	100	85.0	87.3	85	87	44-124	3	18	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	100	86.7	90.5	87	90	70-124	4	15	
Acetone	ug/L	ND	100	100	79.1	85.5	78	84	10-132	8	20	
Benzene	ug/L	ND	20	20	21.2	21.8	106	109	37-151	3	40	
Bromodichloromethane	ug/L	ND	20	20	20.9	20.6	104	103	76-118	1	11	
Bromoform	ug/L	ND	20	20	19.8	19.0	99	95	64-113	4	15	
Bromomethane	ug/L	ND	20	20	15.3	17.7	77	89	41-154	14	43	
Carbon disulfide	ug/L	ND	20	20	20.5	21.3	103	106	80-139	4	17	
Carbon tetrachloride	ug/L	ND	20	20	21.5	21.8	107	109	75-127	1	13	
Chlorobenzene	ug/L	ND	20	20	21.0	20.6	105	103	79-113	2	13	
Chloroethane	ug/L	ND	20	20	21.8	22.1	109	110	53-154	1	20	
Chloroform	ug/L	0.27J	20	20	20.1	20.4	99	101	74-115	2	12	
Chloromethane	ug/L	ND	20	20	15.3	21.6	77	108	33-169	34	72	
cis-1,2-Dichloroethene	ug/L	ND	20	20	19.3	20.6	96	103	58-139	7	40	
cis-1,3-Dichloropropene	ug/L	ND	20	20	16.0	15.8	80	79	70-120	2	14	
Dibromochloromethane	ug/L	ND	20	20	20.3	19.8	102	99	77-114	2	13	
Ethylbenzene	ug/L	ND	20	20	21.4	22.6	107	113	29-151	5	45	
Methylene chloride	ug/L	ND	20	20	18.4	19.4	92	97	76-120	5	13	
Styrene	ug/L	ND	20	20	20.3	20.9	102	105	66-127	3	15	
Tetrachloroethene	ug/L	ND	20	20	21.8	20.9	109	104	77-118	4	14	
Toluene	ug/L	ND	20	20	21.3	21.5	106	108	37-147	1	43	
trans-1,2-Dichloroethene	ug/L	ND	20	20	20.9	21.4	104	107	69-125	2	16	
trans-1,3-Dichloropropene	ug/L	ND	20	20	16.1	15.6	81	78	71-118	4	13	
Trichloroethene	ug/L	ND	20	20	20.7	20.5	104	103	71-116	1	14	
Vinyl chloride	ug/L	ND	20	20	18.8	23.1	94	116	65-142	20	22	
Xylene (Total)	ug/L	ND	60	60	64.0	63.7	107	106	27-156	0	46	
1,2-Dichloroethane-d4 (S)	%						96	99	81-127			
4-Bromofluorobenzene (S)	%						99	99	77-130			
Toluene-d8 (S)	%						101	101	80-120			
Preservation pH		1.0			1.0	1.0				0		

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

QC Batch: 454817 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60231848002, 60231848009

METHOD BLANK: 1862602 Matrix: Water
Associated Lab Samples: 60231848002, 60231848009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Trichloroethene	ug/L	ND	1.0	0.17	11/15/16 14:19	
1,2-Dichloroethane-d4 (S)	%	100	81-127		11/15/16 14:19	
4-Bromofluorobenzene (S)	%	102	77-130		11/15/16 14:19	
Toluene-d8 (S)	%	95	80-120		11/15/16 14:19	

LABORATORY CONTROL SAMPLE: 1862603

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Trichloroethene	ug/L	20	20.7	103	76-114	
1,2-Dichloroethane-d4 (S)	%			95	81-127	
4-Bromofluorobenzene (S)	%			97	77-130	
Toluene-d8 (S)	%			94	80-120	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

QC Batch: 454950 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60231848010, 60231848011, 60231848014, 60231848016, 60231848017, 60231848018, 60231848019, 60231848020, 60231848021, 60231848022, 60231848023, 60231848026, 60231848027

METHOD BLANK: 1863034 Matrix: Water
Associated Lab Samples: 60231848010, 60231848011, 60231848014, 60231848016, 60231848017, 60231848018, 60231848019, 60231848020, 60231848021, 60231848022, 60231848023, 60231848026, 60231848027

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	0.11	11/15/16 20:36	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.15	11/15/16 20:36	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.20	11/15/16 20:36	
1,1-Dichloroethane	ug/L	ND	1.0	0.050	11/15/16 20:36	
1,1-Dichloroethene	ug/L	0.27J	1.0	0.20	11/15/16 20:36	
1,2-Dichloroethane	ug/L	ND	1.0	0.12	11/15/16 20:36	
1,2-Dichloropropane	ug/L	ND	1.0	0.16	11/15/16 20:36	
2-Butanone (MEK)	ug/L	ND	10.0	0.59	11/15/16 20:36	
2-Hexanone	ug/L	ND	10.0	1.2	11/15/16 20:36	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	0.42	11/15/16 20:36	
Acetone	ug/L	ND	10.0	1.9	11/15/16 20:36	
Benzene	ug/L	ND	1.0	0.060	11/15/16 20:36	
Bromodichloromethane	ug/L	ND	1.0	0.19	11/15/16 20:36	
Bromoform	ug/L	ND	1.0	0.070	11/15/16 20:36	
Bromomethane	ug/L	ND	5.0	0.16	11/15/16 20:36	
Carbon disulfide	ug/L	ND	5.0	0.12	11/15/16 20:36	
Carbon tetrachloride	ug/L	ND	1.0	0.18	11/15/16 20:36	
Chlorobenzene	ug/L	ND	1.0	0.21	11/15/16 20:36	
Chloroethane	ug/L	ND	1.0	0.15	11/15/16 20:36	
Chloroform	ug/L	ND	1.0	0.14	11/15/16 20:36	
Chloromethane	ug/L	ND	1.0	0.080	11/15/16 20:36	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.080	11/15/16 20:36	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.14	11/15/16 20:36	
Dibromochloromethane	ug/L	ND	1.0	0.21	11/15/16 20:36	
Ethylbenzene	ug/L	ND	1.0	0.18	11/15/16 20:36	
Methylene chloride	ug/L	ND	1.0	0.15	11/15/16 20:36	
Styrene	ug/L	ND	1.0	0.12	11/15/16 20:36	
Tetrachloroethene	ug/L	ND	1.0	0.10	11/15/16 20:36	
Toluene	ug/L	ND	1.0	0.17	11/15/16 20:36	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.20	11/15/16 20:36	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.12	11/15/16 20:36	
Trichloroethene	ug/L	ND	1.0	0.17	11/15/16 20:36	
Vinyl chloride	ug/L	ND	1.0	0.13	11/15/16 20:36	
Xylene (Total)	ug/L	ND	3.0	0.42	11/15/16 20:36	
1,2-Dichloroethane-d4 (S)	%	98	81-127		11/15/16 20:36	
4-Bromofluorobenzene (S)	%	101	77-130		11/15/16 20:36	
Toluene-d8 (S)	%	90	80-120		11/15/16 20:36	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

LABORATORY CONTROL SAMPLE: 1863035

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	21.8	109	81-116	
1,1,2,2-Tetrachloroethane	ug/L	20	20.1	101	72-117	
1,1,2-Trichloroethane	ug/L	20	20.6	103	79-108	
1,1-Dichloroethane	ug/L	20	21.5	108	83-117	
1,1-Dichloroethene	ug/L	20	21.2	106	74-114	
1,2-Dichloroethane	ug/L	20	20.4	102	72-116	
1,2-Dichloropropane	ug/L	20	20.6	103	80-120	
2-Butanone (MEK)	ug/L	100	99.9	100	67-129	
2-Hexanone	ug/L	100	105	105	70-128	
4-Methyl-2-pentanone (MIBK)	ug/L	100	94.3	94	80-120	
Acetone	ug/L	100	99.8	100	56-142	
Benzene	ug/L	20	21.5	107	79-116	
Bromodichloromethane	ug/L	20	21.2	106	80-120	
Bromoform	ug/L	20	20.7	103	73-114	
Bromomethane	ug/L	20	19.4	97	49-153	
Carbon disulfide	ug/L	20	20.1	101	82-121	
Carbon tetrachloride	ug/L	20	20.9	105	80-116	
Chlorobenzene	ug/L	20	20.5	103	80-120	
Chloroethane	ug/L	20	21.8	109	67-124	
Chloroform	ug/L	20	20.4	102	79-120	
Chloromethane	ug/L	20	21.7	108	10-192	
cis-1,2-Dichloroethene	ug/L	20	19.7	99	80-120	
cis-1,3-Dichloropropene	ug/L	20	19.2	96	80-120	
Dibromochloromethane	ug/L	20	22.2	111	80-120	
Ethylbenzene	ug/L	20	21.0	105	80-120	
Methylene chloride	ug/L	20	18.3	92	80-120	
Styrene	ug/L	20	21.1	106	80-120	
Tetrachloroethene	ug/L	20	24.0	120	80-120	
Toluene	ug/L	20	20.7	104	80-120	
trans-1,2-Dichloroethene	ug/L	20	20.9	104	78-108	
trans-1,3-Dichloropropene	ug/L	20	22.1	110	85-120	
Trichloroethene	ug/L	20	20.8	104	76-114	
Vinyl chloride	ug/L	20	20.1	101	69-129	
Xylene (Total)	ug/L	60	62.7	105	80-120	
1,2-Dichloroethane-d4 (S)	%			100	81-127	
4-Bromofluorobenzene (S)	%			97	77-130	
Toluene-d8 (S)	%			94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1863036 1863037

Parameter	Units	60231848019 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	22.3	20.9	111	104	70-135	7	12	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	19.4	18.7	97	93	54-136	4	15	
1,1,2-Trichloroethane	ug/L	ND	20	20	16.7	20.8	84	104	70-113	22	15	R1

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1863036 1863037

Parameter	Units	60231848019 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethane	ug/L	ND	20	20	20.7	20.0	103	100	80-122	3	13	
1,1-Dichloroethene	ug/L	ND	20	20	21.5	19.8	107	99	73-118	8	14	
1,2-Dichloroethane	ug/L	ND	20	20	19.2	19.2	96	96	54-137	0	41	
1,2-Dichloropropane	ug/L	ND	20	20	19.5	19.7	98	99	77-116	1	12	
2-Butanone (MEK)	ug/L	ND	100	100	82.3	81.9	82	82	30-127	0	18	
2-Hexanone	ug/L	ND	100	100	80.8	93.2	81	93	44-124	14	18	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	100	83.0	81.6	83	82	70-124	2	15	
Acetone	ug/L	ND	100	100	83.0	73.1	83	73	10-132	13	20	
Benzene	ug/L	ND	20	20	21.5	20.5	107	102	37-151	5	40	
Bromodichloromethane	ug/L	ND	20	20	19.6	20.1	98	101	76-118	3	11	
Bromoform	ug/L	ND	20	20	18.4	21.4	92	107	64-113	15	15	
Bromomethane	ug/L	ND	20	20	15.7	18.0	78	90	41-154	14	43	
Carbon disulfide	ug/L	ND	20	20	21.5	19.6	108	98	80-139	9	17	
Carbon tetrachloride	ug/L	ND	20	20	21.4	20.0	107	100	75-127	7	13	
Chlorobenzene	ug/L	ND	20	20	20.5	21.0	103	105	79-113	2	13	
Chloroethane	ug/L	ND	20	20	24.0	20.0	120	100	53-154	18	20	
Chloroform	ug/L	ND	20	20	19.7	18.9	99	94	74-115	4	12	
Chloromethane	ug/L	0.32J	20	20	30.4	19.2	150	94	33-169	45	72	
cis-1,2-Dichloroethene	ug/L	ND	20	20	19.3	18.0	96	90	58-139	7	40	
cis-1,3-Dichloropropene	ug/L	ND	20	20	17.9	16.9	89	84	70-120	6	14	
Dibromochloromethane	ug/L	ND	20	20	18.8	21.5	94	108	77-114	13	13	
Ethylbenzene	ug/L	ND	20	20	21.9	22.0	109	110	29-151	1	45	
Methylene chloride	ug/L	ND	20	20	19.2	17.3	96	86	76-120	11	13	
Styrene	ug/L	ND	20	20	19.8	20.7	99	104	66-127	5	15	
Tetrachloroethene	ug/L	ND	20	20	20.9	22.7	104	114	77-118	8	14	
Toluene	ug/L	ND	20	20	17.9	21.1	90	106	37-147	17	43	
trans-1,2-Dichloroethene	ug/L	ND	20	20	20.7	19.7	103	98	69-125	5	16	
trans-1,3-Dichloropropene	ug/L	ND	20	20	17.0	19.5	85	97	71-118	14	13	R1
Trichloroethene	ug/L	ND	20	20	20.4	20.7	102	103	71-116	1	14	
Vinyl chloride	ug/L	ND	20	20	22.9	18.2	114	91	65-142	23	22	R1
Xylene (Total)	ug/L	ND	60	60	63.9	64.3	106	107	27-156	1	46	
1,2-Dichloroethane-d4 (S)	%						96	94	81-127			
4-Bromofluorobenzene (S)	%						99	93	77-130			
Toluene-d8 (S)	%						84	96	80-120			
Preservation pH		1.0			1.0	1.0				0		

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

QC Batch: 454968
QC Batch Method: EPA 5030B/8260
Analysis Method: EPA 5030B/8260
Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60231848025

METHOD BLANK: 1863067
Matrix: Water
Associated Lab Samples: 60231848025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	0.11	11/16/16 08:42	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.15	11/16/16 08:42	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.20	11/16/16 08:42	
1,1-Dichloroethane	ug/L	ND	1.0	0.050	11/16/16 08:42	
1,1-Dichloroethene	ug/L	ND	1.0	0.20	11/16/16 08:42	
1,2-Dichloroethane	ug/L	ND	1.0	0.12	11/16/16 08:42	
1,2-Dichloropropane	ug/L	ND	1.0	0.16	11/16/16 08:42	
2-Butanone (MEK)	ug/L	ND	10.0	0.59	11/16/16 08:42	
2-Hexanone	ug/L	ND	10.0	1.2	11/16/16 08:42	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	0.42	11/16/16 08:42	
Acetone	ug/L	ND	10.0	1.9	11/16/16 08:42	
Benzene	ug/L	ND	1.0	0.060	11/16/16 08:42	
Bromodichloromethane	ug/L	ND	1.0	0.19	11/16/16 08:42	
Bromoform	ug/L	ND	1.0	0.070	11/16/16 08:42	
Bromomethane	ug/L	ND	5.0	0.16	11/16/16 08:42	
Carbon disulfide	ug/L	ND	5.0	0.12	11/16/16 08:42	
Carbon tetrachloride	ug/L	ND	1.0	0.18	11/16/16 08:42	
Chlorobenzene	ug/L	ND	1.0	0.21	11/16/16 08:42	
Chloroethane	ug/L	ND	1.0	0.15	11/16/16 08:42	
Chloroform	ug/L	ND	1.0	0.14	11/16/16 08:42	
Chloromethane	ug/L	ND	1.0	0.080	11/16/16 08:42	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.080	11/16/16 08:42	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.14	11/16/16 08:42	
Dibromochloromethane	ug/L	ND	1.0	0.21	11/16/16 08:42	
Ethylbenzene	ug/L	ND	1.0	0.18	11/16/16 08:42	
Methylene chloride	ug/L	ND	1.0	0.15	11/16/16 08:42	
Styrene	ug/L	ND	1.0	0.12	11/16/16 08:42	
Tetrachloroethene	ug/L	ND	1.0	0.10	11/16/16 08:42	
Toluene	ug/L	ND	1.0	0.17	11/16/16 08:42	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.20	11/16/16 08:42	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.12	11/16/16 08:42	
Vinyl chloride	ug/L	ND	1.0	0.13	11/16/16 08:42	
Xylene (Total)	ug/L	ND	3.0	0.42	11/16/16 08:42	
1,2-Dichloroethane-d4 (S)	%	99	81-127		11/16/16 08:42	
4-Bromofluorobenzene (S)	%	97	77-130		11/16/16 08:42	
Toluene-d8 (S)	%	91	80-120		11/16/16 08:42	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

LABORATORY CONTROL SAMPLE: 1863068

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	20.0	100	81-116	
1,1,2,2-Tetrachloroethane	ug/L	20	24.6	123	72-117	L0
1,1,2-Trichloroethane	ug/L	20	21.7	108	79-108	
1,1-Dichloroethane	ug/L	20	18.7	94	83-117	
1,1-Dichloroethene	ug/L	20	18.0	90	74-114	
1,2-Dichloroethane	ug/L	20	20.6	103	72-116	
1,2-Dichloropropane	ug/L	20	22.2	111	80-120	
2-Butanone (MEK)	ug/L	100	92.7	93	67-129	
2-Hexanone	ug/L	100	102	102	70-128	
4-Methyl-2-pentanone (MIBK)	ug/L	100	101	101	80-120	
Acetone	ug/L	100	87.1	87	56-142	
Benzene	ug/L	20	21.6	108	79-116	
Bromodichloromethane	ug/L	20	21.3	107	80-120	
Bromoform	ug/L	20	23.3	116	73-114	L0
Bromomethane	ug/L	20	18.7	94	49-153	
Carbon disulfide	ug/L	20	18.1	90	82-121	
Carbon tetrachloride	ug/L	20	19.2	96	80-116	
Chlorobenzene	ug/L	20	21.0	105	80-120	
Chloroethane	ug/L	20	18.5	92	67-124	
Chloroform	ug/L	20	19.2	96	79-120	
Chloromethane	ug/L	20	14.7	74	10-192	
cis-1,2-Dichloroethene	ug/L	20	18.5	93	80-120	
cis-1,3-Dichloropropene	ug/L	20	21.2	106	80-120	
Dibromochloromethane	ug/L	20	22.8	114	80-120	
Ethylbenzene	ug/L	20	21.3	107	80-120	
Methylene chloride	ug/L	20	16.4	82	80-120	
Styrene	ug/L	20	21.6	108	80-120	
Tetrachloroethene	ug/L	20	21.4	107	80-120	
Toluene	ug/L	20	21.0	105	80-120	
trans-1,2-Dichloroethene	ug/L	20	18.5	93	78-108	
trans-1,3-Dichloropropene	ug/L	20	21.7	109	85-120	
Vinyl chloride	ug/L	20	16.6	83	69-129	
Xylene (Total)	ug/L	60	63.0	105	80-120	
1,2-Dichloroethane-d4 (S)	%			97	81-127	
4-Bromofluorobenzene (S)	%			108	77-130	
Toluene-d8 (S)	%			96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1863069 1863070

Parameter	Units	60231848025 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	21.4	24.7	107	123	70-135	14	12	R1
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	19.4	21.0	97	105	54-136	8	15	
1,1,2-Trichloroethane	ug/L	ND	20	20	20.3	20.2	101	101	70-113	0	15	
1,1-Dichloroethane	ug/L	ND	20	20	19.6	21.8	98	109	80-122	11	13	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1863069 1863070

Parameter	Units	60231848025 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethene	ug/L	0.48J	20	20	20.6	22.3	101	109	73-118	8	14	
1,2-Dichloroethane	ug/L	ND	20	20	20.0	21.4	100	107	54-137	7	41	
1,2-Dichloropropane	ug/L	ND	20	20	20.8	21.2	104	106	77-116	2	12	
2-Butanone (MEK)	ug/L	ND	100	100	77.2	96.9	77	97	30-127	23	18	R1
2-Hexanone	ug/L	ND	100	100	91.5	99.2	91	99	44-124	8	18	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	100	81.2	95.9	81	96	70-124	17	15	R1
Acetone	ug/L	ND	100	100	72.2	94.1	70	92	10-132	26	20	R1
Benzene	ug/L	ND	20	20	22.4	22.2	112	111	37-151	1	40	
Bromodichloromethane	ug/L	ND	20	20	20.7	21.9	103	110	76-118	6	11	
Bromoform	ug/L	ND	20	20	20.0	20.4	100	102	64-113	2	15	
Bromomethane	ug/L	ND	20	20	15.0	19.3	75	97	41-154	25	43	
Carbon disulfide	ug/L	ND	20	20	19.3	21.5	96	108	80-139	11	17	
Carbon tetrachloride	ug/L	ND	20	20	20.5	22.5	103	112	75-127	9	13	
Chlorobenzene	ug/L	ND	20	20	21.0	20.7	105	103	79-113	2	13	
Chloroethane	ug/L	ND	20	20	20.1	21.7	101	109	53-154	8	20	
Chloroform	ug/L	0.36J	20	20	19.8	22.1	97	109	74-115	11	12	
Chloromethane	ug/L	ND	20	20	14.6	19.3	73	97	33-169	28	72	
cis-1,2-Dichloroethene	ug/L	73.0	20	20	86.0	101	65	140	58-139	16	40	M1
cis-1,3-Dichloropropene	ug/L	ND	20	20	17.1	18.8	85	94	70-120	10	14	
Dibromochloromethane	ug/L	ND	20	20	20.7	22.9	103	115	77-114	10	13	M1
Ethylbenzene	ug/L	ND	20	20	22.0	21.0	110	105	29-151	4	45	
Methylene chloride	ug/L	0.24J	20	20	16.7	19.0	82	94	76-120	13	13	
Styrene	ug/L	ND	20	20	19.8	19.5	99	97	66-127	2	15	
Tetrachloroethene	ug/L	ND	20	20	21.6	22.7	108	113	77-118	5	14	
Toluene	ug/L	ND	20	20	20.2	20.3	101	102	37-147	0	43	
trans-1,2-Dichloroethene	ug/L	0.88J	20	20	20.2	22.3	96	107	69-125	10	16	
trans-1,3-Dichloropropene	ug/L	ND	20	20	18.2	18.5	91	93	71-118	2	13	
Vinyl chloride	ug/L	0.17J	20	20	17.9	20.9	89	103	65-142	15	22	
Xylene (Total)	ug/L	ND	60	60	65.4	62.7	109	104	27-156	4	46	
1,2-Dichloroethane-d4 (S)	%						96	104	81-127			
4-Bromofluorobenzene (S)	%						97	101	77-130			
Toluene-d8 (S)	%						95	92	80-120			
Preservation pH		1.0			1.0	1.0				0		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1863071 1863072

Parameter	Units	60231925008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	20.7	21.9	104	109	70-135	5	12	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	18.9	22.5	95	113	54-136	17	15	R1
1,1,2-Trichloroethane	ug/L	ND	20	20	20.7	20.5	103	102	70-113	1	15	
1,1-Dichloroethane	ug/L	ND	20	20	19.4	20.3	97	101	80-122	5	13	
1,1-Dichloroethene	ug/L	ND	20	20	19.3	21.4	97	107	73-118	10	14	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1863071 1863072

Parameter	Units	60231925008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dichloroethane	ug/L	ND	20	20	19.2	20.3	96	102	54-137	6	41	
1,2-Dichloropropane	ug/L	ND	20	20	19.3	20.6	96	103	77-116	7	12	
2-Butanone (MEK)	ug/L	ND	100	100	77.0	88.9	77	89	30-127	14	18	
2-Hexanone	ug/L	ND	100	100	89.5	93.9	90	94	44-124	5	18	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	100	78.4	90.2	78	90	70-124	14	15	
Acetone	ug/L	2.1J	100	100	78.9	84.2	77	82	10-132	6	20	
Benzene	ug/L	ND	20	20	22.0	21.8	110	109	37-151	1	40	
Bromodichloromethane	ug/L	ND	20	20	18.4	20.5	92	102	76-118	11	11	
Bromoform	ug/L	ND	20	20	20.9	21.8	104	109	64-113	4	15	
Bromomethane	ug/L	ND	20	20	17.5	19.4	87	97	41-154	10	43	
Carbon disulfide	ug/L	ND	20	20	19.6	20.2	98	101	80-139	3	17	
Carbon tetrachloride	ug/L	ND	20	20	20.5	22.1	102	110	75-127	8	13	
Chlorobenzene	ug/L	ND	20	20	21.1	21.2	106	106	79-113	0	13	
Chloroethane	ug/L	ND	20	20	21.0	20.6	105	103	53-154	2	20	
Chloroform	ug/L	ND	20	20	19.1	19.7	95	99	74-115	3	12	
Chloromethane	ug/L	ND	20	20	21.5	16.3	108	81	33-169	28	72	
cis-1,2-Dichloroethene	ug/L	ND	20	20	18.5	20.1	93	100	58-139	8	40	
cis-1,3-Dichloropropene	ug/L	ND	20	20	16.3	18.6	82	93	70-120	13	14	
Dibromochloromethane	ug/L	ND	20	20	21.3	21.3	106	107	77-114	0	13	
Ethylbenzene	ug/L	ND	20	20	22.5	21.8	113	109	29-151	3	45	
Methylene chloride	ug/L	ND	20	20	18.0	18.4	90	92	76-120	2	13	
Styrene	ug/L	ND	20	20	21.7	21.6	109	108	66-127	0	15	
Tetrachloroethene	ug/L	ND	20	20	23.0	21.4	115	107	77-118	7	14	
Toluene	ug/L	ND	20	20	20.4	20.2	102	101	37-147	1	43	
trans-1,2-Dichloroethene	ug/L	ND	20	20	18.9	20.3	94	101	69-125	7	16	
trans-1,3-Dichloropropene	ug/L	ND	20	20	18.2	18.7	91	93	71-118	2	13	
Vinyl chloride	ug/L	ND	20	20	19.8	19.8	99	99	65-142	0	22	
Xylene (Total)	ug/L	ND	60	60	66.1	69.5	110	116	27-156	5	46	
1,2-Dichloroethane-d4 (S)	%						94	98	81-127			
4-Bromofluorobenzene (S)	%						99	109	77-130			
Toluene-d8 (S)	%						95	94	80-120			
Preservation pH		1.0			1.0	1.0				0		

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

QC Batch: 455179 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60231848012, 60231848013, 60231848015, 60231848016, 60231848024

METHOD BLANK: 1863804 Matrix: Water
Associated Lab Samples: 60231848012, 60231848013, 60231848015, 60231848016, 60231848024

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	0.11	11/16/16 20:49	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.15	11/16/16 20:49	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.20	11/16/16 20:49	
1,1-Dichloroethane	ug/L	ND	1.0	0.050	11/16/16 20:49	
1,1-Dichloroethene	ug/L	ND	1.0	0.20	11/16/16 20:49	
1,2-Dichloroethane	ug/L	ND	1.0	0.12	11/16/16 20:49	
1,2-Dichloropropane	ug/L	ND	1.0	0.16	11/16/16 20:49	
2-Butanone (MEK)	ug/L	ND	10.0	0.59	11/16/16 20:49	
2-Hexanone	ug/L	ND	10.0	1.2	11/16/16 20:49	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	0.42	11/16/16 20:49	
Acetone	ug/L	ND	10.0	1.9	11/16/16 20:49	
Benzene	ug/L	ND	1.0	0.060	11/16/16 20:49	
Bromodichloromethane	ug/L	ND	1.0	0.19	11/16/16 20:49	
Bromoform	ug/L	ND	1.0	0.070	11/16/16 20:49	
Bromomethane	ug/L	ND	5.0	0.16	11/16/16 20:49	
Carbon disulfide	ug/L	ND	5.0	0.12	11/16/16 20:49	
Carbon tetrachloride	ug/L	ND	1.0	0.18	11/16/16 20:49	
Chlorobenzene	ug/L	ND	1.0	0.21	11/16/16 20:49	
Chloroethane	ug/L	ND	1.0	0.15	11/16/16 20:49	
Chloroform	ug/L	ND	1.0	0.14	11/16/16 20:49	
Chloromethane	ug/L	ND	1.0	0.080	11/16/16 20:49	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.080	11/16/16 20:49	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.14	11/16/16 20:49	
Dibromochloromethane	ug/L	ND	1.0	0.21	11/16/16 20:49	
Ethylbenzene	ug/L	ND	1.0	0.18	11/16/16 20:49	
Methylene chloride	ug/L	ND	1.0	0.15	11/16/16 20:49	
Styrene	ug/L	ND	1.0	0.12	11/16/16 20:49	
Tetrachloroethene	ug/L	ND	1.0	0.10	11/16/16 20:49	
Toluene	ug/L	ND	1.0	0.17	11/16/16 20:49	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.20	11/16/16 20:49	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.12	11/16/16 20:49	
Trichloroethene	ug/L	ND	1.0	0.17	11/16/16 20:49	
Vinyl chloride	ug/L	ND	1.0	0.13	11/16/16 20:49	
Xylene (Total)	ug/L	ND	3.0	0.42	11/16/16 20:49	
1,2-Dichloroethane-d4 (S)	%	88	81-127		11/16/16 20:49	
4-Bromofluorobenzene (S)	%	89	77-130		11/16/16 20:49	
Toluene-d8 (S)	%	99	80-120		11/16/16 20:49	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

LABORATORY CONTROL SAMPLE: 1863805

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	19.9	100	81-116	
1,1,2,2-Tetrachloroethane	ug/L	20	20.2	101	72-117	
1,1,2-Trichloroethane	ug/L	20	22.6	113	79-108	L0
1,1-Dichloroethane	ug/L	20	19.0	95	83-117	
1,1-Dichloroethene	ug/L	20	18.3	91	74-114	
1,2-Dichloroethane	ug/L	20	21.4	107	72-116	
1,2-Dichloropropane	ug/L	20	22.0	110	80-120	
2-Butanone (MEK)	ug/L	100	92.7	93	67-129	
2-Hexanone	ug/L	100	105	105	70-128	
4-Methyl-2-pentanone (MIBK)	ug/L	100	102	102	80-120	
Acetone	ug/L	100	86.8	87	56-142	
Benzene	ug/L	20	22.8	114	79-116	
Bromodichloromethane	ug/L	20	22.5	112	80-120	
Bromoform	ug/L	20	19.6	98	73-114	
Bromomethane	ug/L	20	17.3	86	49-153	
Carbon disulfide	ug/L	20	18.1	90	82-121	
Carbon tetrachloride	ug/L	20	19.4	97	80-116	
Chlorobenzene	ug/L	20	20.4	102	80-120	
Chloroethane	ug/L	20	17.9	89	67-124	
Chloroform	ug/L	20	19.9	100	79-120	
Chloromethane	ug/L	20	14.9	75	10-192	
cis-1,2-Dichloroethene	ug/L	20	19.3	96	80-120	
cis-1,3-Dichloropropene	ug/L	20	20.4	102	80-120	
Dibromochloromethane	ug/L	20	22.6	113	80-120	
Ethylbenzene	ug/L	20	20.3	102	80-120	
Methylene chloride	ug/L	20	16.7	83	80-120	
Styrene	ug/L	20	20.0	100	80-120	
Tetrachloroethene	ug/L	20	23.4	117	80-120	
Toluene	ug/L	20	22.1	111	80-120	
trans-1,2-Dichloroethene	ug/L	20	18.4	92	78-108	
trans-1,3-Dichloropropene	ug/L	20	21.8	109	85-120	
Trichloroethene	ug/L	20	21.8	109	76-114	
Vinyl chloride	ug/L	20	19.7	99	69-129	
Xylene (Total)	ug/L	60	59.2	99	80-120	
1,2-Dichloroethane-d4 (S)	%			92	81-127	
4-Bromofluorobenzene (S)	%			98	77-130	
Toluene-d8 (S)	%			98	80-120	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

QC Batch: 454708 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 7 day
Associated Lab Samples: 60231848004, 60231848005, 60231848007

METHOD BLANK: 1862328 Matrix: Water
Associated Lab Samples: 60231848004, 60231848005, 60231848007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	0.11	11/14/16 08:27	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.15	11/14/16 08:27	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.20	11/14/16 08:27	
1,1-Dichloroethane	ug/L	ND	1.0	0.050	11/14/16 08:27	
1,1-Dichloroethene	ug/L	ND	1.0	0.20	11/14/16 08:27	
1,2-Dichloroethane	ug/L	ND	1.0	0.12	11/14/16 08:27	
1,2-Dichloropropane	ug/L	ND	1.0	0.16	11/14/16 08:27	
2-Butanone (MEK)	ug/L	ND	10.0	0.59	11/14/16 08:27	
2-Hexanone	ug/L	ND	10.0	1.2	11/14/16 08:27	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	0.42	11/14/16 08:27	
Acetone	ug/L	ND	10.0	1.9	11/14/16 08:27	
Benzene	ug/L	ND	1.0	0.060	11/14/16 08:27	
Bromodichloromethane	ug/L	ND	1.0	0.19	11/14/16 08:27	
Bromoform	ug/L	ND	1.0	0.070	11/14/16 08:27	
Bromomethane	ug/L	ND	5.0	0.16	11/14/16 08:27	
Carbon disulfide	ug/L	ND	5.0	0.12	11/14/16 08:27	
Carbon tetrachloride	ug/L	ND	1.0	0.18	11/14/16 08:27	
Chlorobenzene	ug/L	ND	1.0	0.21	11/14/16 08:27	
Chloroethane	ug/L	ND	1.0	0.15	11/14/16 08:27	
Chloroform	ug/L	ND	1.0	0.14	11/14/16 08:27	
Chloromethane	ug/L	ND	1.0	0.080	11/14/16 08:27	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.080	11/14/16 08:27	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.14	11/14/16 08:27	
Dibromochloromethane	ug/L	ND	1.0	0.21	11/14/16 08:27	
Ethylbenzene	ug/L	ND	1.0	0.18	11/14/16 08:27	
Methylene chloride	ug/L	ND	1.0	0.15	11/14/16 08:27	
Styrene	ug/L	ND	1.0	0.12	11/14/16 08:27	
Tetrachloroethene	ug/L	ND	1.0	0.10	11/14/16 08:27	
Toluene	ug/L	ND	1.0	0.17	11/14/16 08:27	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.20	11/14/16 08:27	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.12	11/14/16 08:27	
Trichloroethene	ug/L	ND	1.0	0.17	11/14/16 08:27	
Vinyl chloride	ug/L	ND	1.0	0.13	11/14/16 08:27	
Xylene (Total)	ug/L	ND	3.0	0.42	11/14/16 08:27	
1,2-Dichloroethane-d4 (S)	%	99	81-127		11/14/16 08:27	
4-Bromofluorobenzene (S)	%	104	77-130		11/14/16 08:27	
Toluene-d8 (S)	%	99	80-120		11/14/16 08:27	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

LABORATORY CONTROL SAMPLE: 1862329

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	22.0	110	81-116	
1,1,2,2-Tetrachloroethane	ug/L	20	21.5	108	72-117	
1,1,2-Trichloroethane	ug/L	20	20.6	103	79-108	
1,1-Dichloroethane	ug/L	20	20.6	103	83-117	
1,1-Dichloroethene	ug/L	20	21.2	106	74-114	
1,2-Dichloroethane	ug/L	20	20.9	104	72-116	
1,2-Dichloropropane	ug/L	20	21.8	109	80-120	
2-Butanone (MEK)	ug/L	100	96.7	97	67-129	
2-Hexanone	ug/L	100	104	104	70-128	
4-Methyl-2-pentanone (MIBK)	ug/L	100	101	101	80-120	
Acetone	ug/L	100	95.5	96	56-142	
Benzene	ug/L	20	21.7	108	79-116	
Bromodichloromethane	ug/L	20	21.8	109	80-120	
Bromoform	ug/L	20	20.9	105	73-114	
Bromomethane	ug/L	20	17.0	85	49-153	
Carbon disulfide	ug/L	20	20.6	103	82-121	
Carbon tetrachloride	ug/L	20	21.0	105	80-116	
Chlorobenzene	ug/L	20	20.8	104	80-120	
Chloroethane	ug/L	20	19.6	98	67-124	
Chloroform	ug/L	20	20.2	101	79-120	
Chloromethane	ug/L	20	14.8	74	10-192	
cis-1,2-Dichloroethene	ug/L	20	20.3	102	80-120	
cis-1,3-Dichloropropene	ug/L	20	20.9	105	80-120	
Dibromochloromethane	ug/L	20	22.2	111	80-120	
Ethylbenzene	ug/L	20	22.0	110	80-120	
Methylene chloride	ug/L	20	17.9	90	80-120	
Styrene	ug/L	20	21.3	107	80-120	
Tetrachloroethene	ug/L	20	21.7	108	80-120	
Toluene	ug/L	20	21.1	105	80-120	
trans-1,2-Dichloroethene	ug/L	20	20.7	104	78-108	
trans-1,3-Dichloropropene	ug/L	20	19.8	99	85-120	
Trichloroethene	ug/L	20	20.2	101	76-114	
Vinyl chloride	ug/L	20	20.9	104	69-129	
Xylene (Total)	ug/L	60	64.4	107	80-120	
1,2-Dichloroethane-d4 (S)	%			97	81-127	
4-Bromofluorobenzene (S)	%			101	77-130	
Toluene-d8 (S)	%			98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1862330 1862331

Parameter	Units	60232152007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	22.3	21.5	111	107	70-135	4	12	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	19.6	21.0	98	105	54-136	7	15	
1,1,2-Trichloroethane	ug/L	ND	20	20	19.0	19.5	95	98	70-113	3	15	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1862330 1862331

Parameter	Units	60232152007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethane	ug/L	ND	20	20	21.9	21.6	109	108	80-122	1	13	
1,1-Dichloroethene	ug/L	ND	20	20	21.6	21.6	108	108	73-118	0	14	
1,2-Dichloroethane	ug/L	4.8	20	20	23.9	24.8	96	100	54-137	4	41	
1,2-Dichloropropane	ug/L	ND	20	20	20.4	21.0	102	105	77-116	3	12	
2-Butanone (MEK)	ug/L	ND	100	100	86.1	89.4	86	89	30-127	4	18	
2-Hexanone	ug/L	ND	100	100	88.7	95.6	89	96	44-124	7	18	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	100	96.2	97.1	96	97	70-124	1	15	
Acetone	ug/L	ND	100	100	83.4	85.8	81	83	10-132	3	20	
Benzene	ug/L	ND	20	20	21.4	21.3	107	107	37-151	0	40	
Bromodichloromethane	ug/L	ND	20	20	21.0	20.8	105	104	76-118	1	11	
Bromoform	ug/L	ND	20	20	19.4	19.9	97	100	64-113	3	15	
Bromomethane	ug/L	ND	20	20	20.6	22.8	103	114	41-154	10	43	
Carbon disulfide	ug/L	ND	20	20	21.7	21.1	109	105	80-139	3	17	
Carbon tetrachloride	ug/L	ND	20	20	21.6	21.2	108	106	75-127	2	13	
Chlorobenzene	ug/L	ND	20	20	21.0	20.6	105	103	79-113	2	13	
Chloroethane	ug/L	ND	20	20	22.8	21.6	114	108	53-154	6	20	
Chloroform	ug/L	ND	20	20	20.0	20.6	100	103	74-115	3	12	
Chloromethane	ug/L	ND	20	20	28.6	19.4	143	97	33-169	39	72	
cis-1,2-Dichloroethene	ug/L	ND	20	20	21.1	21.7	101	104	58-139	3	40	
cis-1,3-Dichloropropene	ug/L	ND	20	20	20.2	20.4	101	102	70-120	1	14	
Dibromochloromethane	ug/L	ND	20	20	20.3	20.7	102	104	77-114	2	13	
Ethylbenzene	ug/L	ND	20	20	21.9	21.4	109	107	29-151	2	45	
Methylene chloride	ug/L	ND	20	20	18.8	18.5	94	92	76-120	2	13	
Styrene	ug/L	ND	20	20	21.9	21.1	110	105	66-127	4	15	
Tetrachloroethene	ug/L	ND	20	20	22.0	22.3	110	112	77-118	1	14	
Toluene	ug/L	ND	20	20	21.2	20.6	106	103	37-147	3	43	
trans-1,2-Dichloroethene	ug/L	ND	20	20	21.5	21.2	108	106	69-125	1	16	
trans-1,3-Dichloropropene	ug/L	ND	20	20	19.5	19.8	97	99	71-118	2	13	
Trichloroethene	ug/L	3.1	20	20	24.9	24.3	109	106	71-116	3	14	
Vinyl chloride	ug/L	ND	20	20	24.2	21.2	121	106	65-142	13	22	
Xylene (Total)	ug/L	ND	60	60	66.3	62.7	110	105	27-156	5	46	
1,2-Dichloroethane-d4 (S)	%						93	97	81-127			
4-Bromofluorobenzene (S)	%						98	99	77-130			
Toluene-d8 (S)	%						97	96	80-120			
Preservation pH		7.0			7.0	7.0				0		

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

QC Batch: 454733 Analysis Method: SM 4500-S-2 D
QC Batch Method: SM 4500-S-2 D Analysis Description: 4500S2D Sulfide, Total
Associated Lab Samples: 60231848013, 60231848014, 60231848015, 60231848024, 60231848025

METHOD BLANK: 1862393 Matrix: Water
Associated Lab Samples: 60231848013, 60231848014, 60231848015, 60231848024, 60231848025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide, Total	mg/L	ND	0.050	0.019	11/14/16 12:08	

LABORATORY CONTROL SAMPLE: 1862394

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	.5	0.52	104	80-120	

MATRIX SPIKE SAMPLE: 1862395

Parameter	Units	60231848013 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	ND	.5	0.42	83	75-125	

SAMPLE DUPLICATE: 1862396

Parameter	Units	60231848025 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Total	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 1862397

Parameter	Units	60232095001 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Total	mg/L	ND	ND		20	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

QC Batch: 455175 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 60231848013, 60231848014, 60231848015, 60231848024, 60231848025

METHOD BLANK: 1863799 Matrix: Water
Associated Lab Samples: 60231848013, 60231848014, 60231848015, 60231848024, 60231848025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfate	mg/L	ND	1.0	0.15	11/16/16 08:42	

LABORATORY CONTROL SAMPLE: 1863800

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	5	5.1	102	90-110	

MATRIX SPIKE SAMPLE: 1863803

Parameter	Units	60231848025 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	19.7	5	25.7	120	80-120	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

QC Batch: 454180 Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Associated Lab Samples: 60231848013, 60231848014, 60231848015, 60231848024, 60231848025

METHOD BLANK: 1859716 Matrix: Water
Associated Lab Samples: 60231848013, 60231848014, 60231848015, 60231848024, 60231848025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.012	11/09/16 15:28	
Nitrogen, Nitrite	mg/L	ND	0.10	0.010	11/09/16 15:28	
Nitrogen, NO2 plus NO3	mg/L	ND	0.10	0.012	11/09/16 15:28	

LABORATORY CONTROL SAMPLE: 1859717

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.1	107	85-115	
Nitrogen, Nitrite	mg/L	1	0.97	97	90-110	
Nitrogen, NO2 plus NO3	mg/L	2	2.0	102	90-110	

MATRIX SPIKE SAMPLE: 1859720

Parameter	Units	60231848025 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	12.4	5	16.4	80	85-115	M1
Nitrogen, Nitrite	mg/L	ND	5	5.1	101	90-110	
Nitrogen, NO2 plus NO3	mg/L	12.4	10	21.4	91	90-110	

SAMPLE DUPLICATE: 1859719

Parameter	Units	60231805011 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Nitrate	mg/L	0.23	0.23	1	20	
Nitrogen, Nitrite	mg/L	0.022J	0.024J		20	
Nitrogen, NO2 plus NO3	mg/L	0.26	0.25	0	20	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

QC Batch: 454642 Analysis Method: SM 5310C
QC Batch Method: SM 5310C Analysis Description: 5310C Total Organic Carbon
Associated Lab Samples: 60231848013, 60231848014

METHOD BLANK: 1861911 Matrix: Water
Associated Lab Samples: 60231848013, 60231848014

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	0.085J	1.0	0.054	11/12/16 09:38	

LABORATORY CONTROL SAMPLE: 1861912

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	5	4.9	97	80-120	

MATRIX SPIKE SAMPLE: 1861913

Parameter	Units	60231927001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	1.4	5	4.5	62	80-120	M1

SAMPLE DUPLICATE: 1861914

Parameter	Units	60231927002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Organic Carbon	mg/L	1.4	1.4	4	25	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

QC Batch: 454961 Analysis Method: SM 5310C
QC Batch Method: SM 5310C Analysis Description: 5310C Total Organic Carbon
Associated Lab Samples: 60231848015, 60231848024, 60231848025

METHOD BLANK: 1863050 Matrix: Water
Associated Lab Samples: 60231848015, 60231848024, 60231848025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	0.063J	1.0	0.054	11/15/16 10:49	

LABORATORY CONTROL SAMPLE: 1863051

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	5	4.6	92	80-120	

MATRIX SPIKE SAMPLE: 1863053

Parameter	Units	60231848025 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	0.50J	5	4.9	89	80-120	

SAMPLE DUPLICATE: 1863052

Parameter	Units	60231810015 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Organic Carbon	mg/L	2740	2730	0	25	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALIFIERS

Project: FORT SMITH, AR
Pace Project No.: 60231848

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-K	Pace Analytical Services - Kansas City

BATCH QUALIFIERS

Batch: 454817

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

Batch: 455179

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

Batch: 455400

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

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L3	Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
R1	RPD value was outside control limits.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: FORT SMITH, AR
Pace Project No.: 60231848

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60231848013	**MW-87-201611**	EPA 3010	454539	EPA 6010	454595
60231848014	**MW-89-201611**	EPA 3010	454539	EPA 6010	454595
60231848015	**TMW-11-201611**	EPA 3010	454539	EPA 6010	454595
60231848024	**ITMW-10-201611**	EPA 3010	454539	EPA 6010	454595
60231848025	**ITMW-9-201611**	EPA 3010	454539	EPA 6010	454595
60231848001	**MW-60R-201611**	EPA 5030B/8260	454535		
60231848002	**MW-46R-201611**	EPA 5030B/8260	454535		
60231848002	**MW-46R-201611**	EPA 5030B/8260	454817		
60231848003	**MW-18S-201611**	EPA 5030B/8260	454535		
60231848006	**MW-22-201611**	EPA 5030B/8260	454535		
60231848008	**MW-17S-201611**	EPA 5030B/8260	454535		
60231848009	**DUP-07-201611**	EPA 5030B/8260	454535		
60231848009	**DUP-07-201611**	EPA 5030B/8260	454817		
60231848010	**MW-57R-201611**	EPA 5030B/8260	454535		
60231848010	**MW-57R-201611**	EPA 5030B/8260	454950		
60231848011	**MW-56R-201611**	EPA 5030B/8260	454535		
60231848011	**MW-56R-201611**	EPA 5030B/8260	454950		
60231848012	**MW-176-201611**	EPA 5030B/8260	454535		
60231848012	**MW-176-201611**	EPA 5030B/8260	455179		
60231848013	**MW-87-201611**	EPA 5030B/8260	454535		
60231848013	**MW-87-201611**	EPA 5030B/8260	455179		
60231848014	**MW-89-201611**	EPA 5030B/8260	454950		
60231848015	**TMW-11-201611**	EPA 5030B/8260	455179		
60231848016	**DUP-05-201611**	EPA 5030B/8260	454950		
60231848016	**DUP-05-201611**	EPA 5030B/8260	455179		
60231848017	**MW-190-201611**	EPA 5030B/8260	454950		
60231848018	**MW-98-201611**	EPA 5030B/8260	454950		
60231848019	**MW-191-201611**	EPA 5030B/8260	454950		
60231848020	**MW-97-201611**	EPA 5030B/8260	454950		
60231848021	**MW-96-201611**	EPA 5030B/8260	454950		
60231848022	**MW-184-201611**	EPA 5030B/8260	454950		
60231848023	**EB-02-201611**	EPA 5030B/8260	454950		
60231848024	**ITMW-10-201611**	EPA 5030B/8260	455179		
60231848025	**ITMW-9-201611**	EPA 5030B/8260	454968		
60231848025	**ITMW-9-201611**	EPA 5030B/8260	455400		
60231848026	**TB-1-201611**	EPA 5030B/8260	454950		
60231848027	**TB-3-201611**	EPA 5030B/8260	454950		
60231848004	**IW-77-201611**	EPA 5030B/8260	454708		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: FORT SMITH, AR
Pace Project No.: 60231848

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60231848005	**IW-78-201611**	EPA 5030B/8260	454708		
60231848007	**MW-24-201611**	EPA 5030B/8260	454708		
60231848013	**MW-87-201611**	SM 3500-Fe B#4	456110		
60231848014	**MW-89-201611**	SM 3500-Fe B#4	456110		
60231848015	**TMW-11-201611**	SM 3500-Fe B#4	456110		
60231848024	**ITMW-10-201611**	SM 3500-Fe B#4	456110		
60231848025	**ITMW-9-201611**	SM 3500-Fe B#4	456110		
60231848013	**MW-87-201611**	SM 4500-S-2 D	454733		
60231848014	**MW-89-201611**	SM 4500-S-2 D	454733		
60231848015	**TMW-11-201611**	SM 4500-S-2 D	454733		
60231848024	**ITMW-10-201611**	SM 4500-S-2 D	454733		
60231848025	**ITMW-9-201611**	SM 4500-S-2 D	454733		
60231848013	**MW-87-201611**	EPA 300.0	455175		
60231848014	**MW-89-201611**	EPA 300.0	455175		
60231848015	**TMW-11-201611**	EPA 300.0	455175		
60231848024	**ITMW-10-201611**	EPA 300.0	455175		
60231848025	**ITMW-9-201611**	EPA 300.0	455175		
60231848013	**MW-87-201611**	EPA 353.2	454180		
60231848014	**MW-89-201611**	EPA 353.2	454180		
60231848015	**TMW-11-201611**	EPA 353.2	454180		
60231848024	**ITMW-10-201611**	EPA 353.2	454180		
60231848025	**ITMW-9-201611**	EPA 353.2	454180		
60231848013	**MW-87-201611**	SM 5310C	454642		
60231848014	**MW-89-201611**	SM 5310C	454642		
60231848015	**TMW-11-201611**	SM 5310C	454961		
60231848024	**ITMW-10-201611**	SM 5310C	454961		
60231848025	**ITMW-9-201611**	SM 5310C	454961		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
www.pacelabs.com

Sample Condition Upon Receipt

WO# : 60231848

60231848

Client Name: Environ

Courier: FedEx ☒ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☐ Client ☐ Other ☐

Tracking #: 8103 0090 9404 , 9404 Pace Shipping Label Used? Yes ☐ No ☐

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

Packing Material: Bubble Wrap ☐ Bubble Bags ☒ Foam ☐ None ☐ Other ☐

Thermometer Used: ~~T-266~~ (CF +0.7) / T-239 (CF -0.5) **Type of Ice:** (Wet) Blue None

Cooler Temperature (°C): **As-read** 20 0.9 **Corr. Factor** (CF +0.7) CF -0.5 **Corrected** 2.7 1.6

Date and initials of person examining contents: JB 11/9

Temperature should be above freezing to 6°C

Chain of Custody present:	☒Yes ☐No ☐N/A	
Chain of Custody relinquished:	☒Yes ☐No ☐N/A	
Samples arrived within holding time:	☒Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☐Yes ☒No ☐N/A	NO2 / NO3
Rush Turn Around Time requested:	☐Yes ☒No ☐N/A	
Sufficient volume:	☒Yes ☐No ☐N/A	
Correct containers used:	☒Yes ☐No ☐N/A	
Pace containers used:	☒Yes ☐No ☐N/A	
Containers intact:	☒Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☒N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☒N/A	
Sample labels match COC: Date / time / ID / analyses	☒Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: WT	☐Yes ☒No ☐N/A	
Containers requiring pH preservation in compliance? (HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: (VOA), Micro, O&G, KS TPH, OK-DRO)	☒Yes ☐No ☐N/A	
Cyanide water sample checks: ☒ N/A Lead acetate strip turns dark? (Record only) Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No ☐Yes ☐No	
Trip Blank present:	☒Yes ☐No ☐N/A	
Headspace in VOA vials (>6mm):	☐Yes ☒No ☐N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☒N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☒N/A	

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: Colleen Clyne Date: 11/11/2016

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 3

Section A Required Client Information:

Company:	Environ
Address:	7500 College Blvd., Ste. 925
	Overland Park, KS 66210
Email To:	wstonestreet@ramboll.com
Phone: 913-553-5926	Fax:
Requested Due Date/TAT:	

Section B Required Project Information:

Report To:	Wendy Stonestreet
Copy To:	Tammy Gleason
Purchase Order No.:	NA
Project Name:	Fort Smith, AR
Project Number:	

Section C Invoice Information:

Attention:	Tammy Gleason
Company Name:	Environ
Address:	250 Monroe Ave. NW Grand Rapids
Pace Quote Reference:	Michigan, 49503
Pace Project Manager:	Colleen Clyne
Pace Profile #:	7444, line 1

REGULATORY AGENCY

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

Site Location STATE: AR

Section D Required Client Information

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

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	8260 VOCs	Sulfide	TOC	Sulfate	Nitrate, nitrite, unpres	6010-Iron	Ferric iron calc. (send field Ferrous)	ascorbic acid		Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
																												60231848
1	MW-16OL-20160111	WT	G			11/8/16	1250		3				X						X								(3) DUPH		W1
2	MW-46R-20160111	WT	G			11/8/16	1350		3				X						X										W2
3	MW-18S-20160111	WT	G			11/8/16	1640		3				X						X										W3
4	MW-77-20160111	WT	G			11/8/16	0929		3				X						X						X		(3) OTHER	7day hold	W4
5	MW-78-20160111	WT	G			11/8/16	1137		3				X						X						X			7day hold	W5
6	MW-22-20160111	WT	G			11/8/16	1316		3				X						X								(3) DUPH		W6
7	MW-24-20160111	WT	G			11/8/16	1635		3				X						X						X		(3) OTHER	7day hold	W7
8	MW-17S-20160111	WT	G			11/8/16	1240		3				X						X								(3) DUPH		W8
9	Dup-07-20160111	WT	G			11/8/16	1035		3				3						X										W9
10	MW-57R-20160111	WT	G			11/8/16	1035		3				3						X										W10
11	MW-51OR-20160111	WT	G			11/8/16	0905		3				3						X										W11
12	MW-17D-20160111	WT	G			11/8/16	1455		3				3						X										W12

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Victoria Stegler RE	11/8/16	1800		11/9	0910	2.7	Y	Y	Y
							1.6	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Victoria Stegler

SIGNATURE of SAMPLER: Victoria Stegler

DATE Signed (MM/DD/YY): 11/8/16

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

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

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

CHAIN-OF-CUSTODY / Analytical Request Document

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

Pace Analytical
www.pacelabs.com

Section A Required Client Information:

Company:	Environ
Address:	7500 College Blvd., Ste. 925
	Overland Park, KS 66210
Email To:	wstonestreet@ramboll.com
Phone: 913-553-5926	Fax:
Requested Due Date/TAT:	

Section B Required Project Information:

Report To:	Wendy Stonestreet
Copy To:	Tammy Gleason
Purchase Order No.:	NA
Project Name:	Fort Smith, AR
Project Number:	

Section C Invoice Information:

Attention:	Tammy Gleason
Company Name:	Environ
Address:	250 Monroe Ave. NW Grand Rapids
Pace Quote Reference:	Michigan, 49503
Pace Project Manager:	Colleen Clyne
Pace Profile #:	7444, line 1

REGULATORY AGENCY

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

Site Location STATE: AR

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

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

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	8260 VOCs	Sulfide	TOC	Sulfate	Nitrate, nitrite, unpres	6010-Iron	Ferric Iron calc. (send field Ferrous)		Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-87-20161111 BP3U AG3S BP3Z BP3N	WT	G			11/8/16	1700		9	X	X	X	X	X				X	X	X	X	X	X		(3)D69A		013
2	MW-89-20161111	WT	G			11/8/16	1515		9																		014
3	TMW-11-20161111	WT	G			11/8/16	0927		9																		015
4	DUP-05-20161111	WT	G			11/8/16	1700		3				X						X								016
5	MW-190-20161111	WT	G			11/8/16	1515		3				X						X								017
6	MW-98-20161111	WT	G			11/8/16	1315		3				X						X								018
7	MW-191-20161111 MS/MSD	WT	G			11/8/16	1635		3				X						X								-
8	MW-191-20161111	WT	G			11/8/16	1635		3				X						X					(6)D69A			019
9	MW-97-20161111	WT	G			11/8/16	1125		3				X						X					(3)D69A			020
10	MW-96-20161111	WT	G			11/8/16	1015		3				X						X								021
11	MW-184-20161111	WT	G			11/8/16	0825		3				X						X								022
12	EB-02-20161111	WT	G			11/8/16	1700		3				X						X								023

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Victoria Stratton RE	11/8/16	1800		11/9	0910	2.7	Y	Y	Y
							1.6	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Victoria Stratton

SIGNATURE of SAMPLER: Victoria Stratton

DATE Signed (MM/DD/YY): 11/8/16

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

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

CHAIN-OF-CUSTODY / Analytical Request Document

Pace Analytical
www.pacelabs.com

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

Page: 3 of 3

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Environ	Report To:	Wendy Stonestreet	Attention:	Tammy Gleason
Address:	7500 College Blvd., Ste. 925	Copy To:	Tammy Gleason	Company Name:	Environ
	Overland Park, KS 66210			Address:	250 Monroe Ave. NW Grand Rapids
Email To:	wstonestreet@ramboll.com	Purchase Order No.:	NA	Pace Quote Reference:	Michigan, 49503
Phone:	913-553-5926 Fax:	Project Name:	Fort Smith, AR	Pace Project Manager:	Colleen Clyne
Requested Due Date/TAT:		Project Number:		Pace Profile #:	7444, line 1

REGULATORY AGENCY

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

Site Location STATE: AR

Requested Analysis Filtered (Y/N)

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

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

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	8260 VOCs	Sulfide	TOC	Sulfate	Nitrate, nitrite, unpres	6010-Iron	Ferric Iron calc. (send field Ferrous)					Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 60231848
1	~~FB~~ TMW-10-20116 11	WT	G			11/8/16	0917		9																		(3) DGAH 024
2	TMW-9-20116 11	WT	G			11/8/16	1600		9																		(6) DGAH 025
3MS	~~MS/MSD~~ TMW-9-20116 11 MS/MSD	WT	G			11/8/16	1600		3																		-
4	TB-1-20116 11	WT	G			11/8/16	—		2																		(2) DGAH TB 026
5	TB-3-20116 11	WT	G			11/8/16	—		2																		027
6																											
7																											
8																											
9																											
10																											
11																											
12																											

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	Victoria Sieglen RG	11/8/16	1850		11/9	0910	2.7	Y	Y	Y
							1.6	Y	Y	F

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Victoria Sieglen

SIGNATURE of SAMPLER: Victoria Sieglen DATE Signed (MM/DD/YY): 11/8/16

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

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

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

November 29, 2016

Tamara Gleason
Ramboll Environ
250 Monroe Ave. NW
Ste 400
Grand Rapids, MI 49503

RE: Project: FORT SMITH, AR
Pace Project No.: 60231848

Dear Tamara Gleason:
Enclosed are the analytical results for sample(s) received by the laboratory on November 09, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Revised Report Rev_1. Corrected sample IDs on samples 602318480003, 008, and 024 to match the chain of custody.

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

Sincerely,

Colleen Clyne

Colleen Clyne
colleen.clyne@pacelabs.com
Project Manager

Enclosures

cc: Johanna Pavlowsky, Ramboll Environ

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

CERTIFICATIONS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219
WY STR Certification #: 2456.01
Arkansas Certification #: 15-016-0
Illinois Certification #: 003097
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407
Utah Certification #: KS00021
Kansas Field Laboratory Accreditation: # E-92587
Missouri Certification: 10070

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

SAMPLE SUMMARY

Project: FORT SMITH, AR
Pace Project No.: 60231848

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60231848001	**MW-60R-201611**	Water	11/08/16 12:50	11/09/16 09:10
60231848002	**MW-46R-201611**	Water	11/08/16 13:50	11/09/16 09:10
60231848003	**MW-185-201611**	Water	11/08/16 16:40	11/09/16 09:10
60231848004	**IW-77-201611**	Water	11/08/16 09:29	11/09/16 09:10
60231848005	**IW-78-201611**	Water	11/08/16 11:37	11/09/16 09:10
60231848006	**MW-22-201611**	Water	11/08/16 13:16	11/09/16 09:10
60231848007	**MW-24-201611**	Water	11/08/16 16:35	11/09/16 09:10
60231848008	**MW-175-201611**	Water	11/08/16 12:40	11/09/16 09:10
60231848009	**DUP-07-201611**	Water	11/08/16 10:35	11/09/16 09:10
60231848010	**MW-57R-201611**	Water	11/08/16 10:35	11/09/16 09:10
60231848011	**MW-56R-201611**	Water	11/08/16 09:05	11/09/16 09:10
60231848012	**MW-176-201611**	Water	11/08/16 14:55	11/09/16 09:10
60231848013	**MW-87-201611**	Water	11/08/16 17:00	11/09/16 09:10
60231848014	**MW-89-201611**	Water	11/08/16 15:15	11/09/16 09:10
60231848015	**TMW-11-201611**	Water	11/08/16 09:27	11/09/16 09:10
60231848016	**DUP-05-201611**	Water	11/08/16 17:00	11/09/16 09:10
60231848017	**MW-190-201611**	Water	11/08/16 15:15	11/09/16 09:10
60231848018	**MW-98-201611**	Water	11/08/16 13:15	11/09/16 09:10
60231848019	**MW-191-201611**	Water	11/08/16 16:35	11/09/16 09:10
60231848020	**MW-97-201611**	Water	11/08/16 11:25	11/09/16 09:10
60231848021	**MW-96-201611**	Water	11/08/16 10:15	11/09/16 09:10
60231848022	**MW-184-201611**	Water	11/08/16 08:25	11/09/16 09:10
60231848023	**EB-02-201611**	Water	11/08/16 17:00	11/09/16 09:10
60231848024	**TMW-10-201611**	Water	11/08/16 09:17	11/09/16 09:10
60231848025	**ITMW-9-201611**	Water	11/08/16 16:00	11/09/16 09:10
60231848026	**TB-1-201611**	Water	11/08/16 08:25	11/09/16 09:10
60231848027	**TB-3-201611**	Water	11/08/16 08:25	11/09/16 09:10

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

SAMPLE ANALYTE COUNT

Project: FORT SMITH, AR
Pace Project No.: 60231848

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60231848001	**MW-60R-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848002	**MW-46R-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848003	**MW-185-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848004	**IW-77-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848005	**IW-78-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848006	**MW-22-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848007	**MW-24-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848008	**MW-175-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848009	**DUP-07-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848010	**MW-57R-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848011	**MW-56R-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848012	**MW-176-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848013	**MW-87-201611**	EPA 6010	NDJ	1	PASI-K
		EPA 5030B/8260	PGH	38	PASI-K
		SM 3500-Fe B#4	TJG	1	PASI-K
		SM 4500-S-2 D	HMM	1	PASI-K
		EPA 300.0	OL	1	PASI-K
		EPA 353.2	LDB	3	PASI-K
		SM 5310C	JMC1	1	PASI-K
60231848014	**MW-89-201611**	EPA 6010	NDJ	1	PASI-K
		EPA 5030B/8260	PGH	38	PASI-K
		SM 3500-Fe B#4	TJG	1	PASI-K
		SM 4500-S-2 D	HMM	1	PASI-K
		EPA 300.0	OL	1	PASI-K
		EPA 353.2	LDB	3	PASI-K
		SM 5310C	JMC1	1	PASI-K
60231848015	**TMW-11-201611**	EPA 6010	NDJ	1	PASI-K
		EPA 5030B/8260	PGH	38	PASI-K
		SM 3500-Fe B#4	TJG	1	PASI-K
		SM 4500-S-2 D	HMM	1	PASI-K
		EPA 300.0	OL	1	PASI-K
		EPA 353.2	LDB	3	PASI-K
		SM 5310C	JMC1	1	PASI-K
60231848016	**DUP-05-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848017	**MW-190-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848018	**MW-98-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848019	**MW-191-201611**	EPA 5030B/8260	PGH	38	PASI-K

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

SAMPLE ANALYTE COUNT

Project: FORT SMITH, AR
Pace Project No.: 60231848

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60231848020	**MW-97-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848021	**MW-96-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848022	**MW-184-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848023	**EB-02-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848024	**TMW-10-201611**	EPA 6010	NDJ	1	PASI-K
		EPA 5030B/8260	PGH	38	PASI-K
		SM 3500-Fe B#4	TJG	1	PASI-K
		SM 4500-S-2 D	HMM	1	PASI-K
		EPA 300.0	OL	1	PASI-K
		EPA 353.2	LDB	3	PASI-K
		SM 5310C	JMC1	1	PASI-K
60231848025	**ITMW-9-201611**	EPA 6010	NDJ	1	PASI-K
		EPA 5030B/8260	PGH	37	PASI-K
		SM 3500-Fe B#4	TJG	1	PASI-K
		SM 4500-S-2 D	HMM	1	PASI-K
		EPA 300.0	OL	1	PASI-K
		EPA 353.2	LDB	3	PASI-K
		SM 5310C	JMC1	1	PASI-K
60231848026	**TB-1-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231848027	**TB-3-201611**	EPA 5030B/8260	PGH	38	PASI-K

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231848

Method: **EPA 6010**
Description: 6010 MET ICP
Client: Ramboll Environ_AR
Date: November 29, 2016

General Information:
5 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231848

Method: **EPA 5030B/8260**
Description: 8260 MSV
Client: Ramboll Environ_AR
Date: November 29, 2016

General Information:
27 samples were analyzed for EPA 5030B/8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

QC Batch: 454950

B: Analyte was detected in the associated method blank.
- BLANK for HBN 454950 [MSV/7922 (Lab ID: 1863034)
  - 1,1-Dichloroethene

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: 454968

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
- LCS (Lab ID: 1863068)
  - 1,1,2,2-Tetrachloroethane
  - Bromoform

QC Batch: 455179

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
- LCS (Lab ID: 1863805)
  - 1,1,2-Trichloroethane

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231848

Method: **EPA 5030B/8260**
Description: 8260 MSV
Client: Ramboll Environ_AR
Date: November 29, 2016

QC Batch: 454817

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

QC Batch: 454950

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60231848019

R1: RPD value was outside control limits.

- MSD (Lab ID: 1863037)
  - 1,1,2-Trichloroethane
  - Vinyl chloride
  - trans-1,3-Dichloropropene

QC Batch: 454968

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60231848025,60231925008

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MSD (Lab ID: 1863070)
  - Dibromochloromethane
  - cis-1,2-Dichloroethene

R1: RPD value was outside control limits.

- MSD (Lab ID: 1863070)
  - 1,1,1-Trichloroethane
  - 2-Butanone (MEK)
  - 4-Methyl-2-pentanone (MIBK)
  - Acetone
- MSD (Lab ID: 1863072)
  - 1,1,2,2-Tetrachloroethane

QC Batch: 455179

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231848

Method: **SM 3500-Fe B#4**
Description: Iron, Ferric (Calculation)
Client: Ramboll Environ_AR
Date: November 29, 2016

General Information:
5 samples were analyzed for SM 3500-Fe B#4. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231848

Method: **SM 4500-S-2 D**
Description: 4500S2D Sulfide, Total
Client: Ramboll Environ_AR
Date: November 29, 2016

General Information:
5 samples were analyzed for SM 4500-S-2 D. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231848

Method: **EPA 300.0**
Description: 300.0 IC Anions 28 Days
Client: Ramboll Environ_AR
Date: November 29, 2016

General Information:
5 samples were analyzed for EPA 300.0. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231848

Method: **EPA 353.2**
Description: 353.2 Nitrogen, NO2/NO3 unpres
Client: Ramboll Environ_AR
Date: November 29, 2016

General Information:
5 samples were analyzed for EPA 353.2. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 454180

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60231848025

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1859720)
  - Nitrogen, Nitrate

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231848

Method: **SM 5310C**
Description: 5310C TOC
Client: Ramboll Environ_AR
Date: November 29, 2016

General Information:
5 samples were analyzed for SM 5310C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

QC Batch: 454642

B: Analyte was detected in the associated method blank.
- BLANK for HBN 454642 [WETA/423 (Lab ID: 1861911)
  - Total Organic Carbon

QC Batch: 454961

B: Analyte was detected in the associated method blank.
- BLANK for HBN 454961 [WETA/424 (Lab ID: 1863050)
  - Total Organic Carbon

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 454642

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60231927001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- MS (Lab ID: 1861913)
  - Total Organic Carbon

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-60R-201611 **Lab ID: 60231848001** Collected: 11/08/16 12:50 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	**2.3J**	ug/L	10.0	1.9	1		11/14/16 04:00	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/14/16 04:00	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 04:00	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/14/16 04:00	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/14/16 04:00	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 04:00	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 04:00	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 04:00	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 04:00	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 04:00	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/14/16 04:00	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/14/16 04:00	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 04:00	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 04:00	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 04:00	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 04:00	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/14/16 04:00	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 04:00	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 04:00	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 04:00	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 04:00	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 04:00	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 04:00	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 04:00	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 04:00	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 04:00	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 04:00	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 04:00	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 04:00	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 04:00	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 04:00	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/14/16 04:00	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/14/16 04:00	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 04:00	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	98	%	77-130		1		11/14/16 04:00	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	81-127		1		11/14/16 04:00	17060-07-0	
Toluene-d8 (S)	97	%	80-120		1		11/14/16 04:00	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/14/16 04:00		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-46R-201611 **Lab ID: 60231848002** Collected: 11/08/16 13:50 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/14/16 04:44	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/14/16 04:44	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 04:44	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/14/16 04:44	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/14/16 04:44	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 04:44	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 04:44	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 04:44	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 04:44	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 04:44	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/14/16 04:44	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/14/16 04:44	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 04:44	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 04:44	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 04:44	107-06-2	
1,1-Dichloroethene	**1.2**	ug/L	1.0	0.20	1		11/14/16 04:44	75-35-4	
cis-1,2-Dichloroethene	**10.3**	ug/L	1.0	0.080	1		11/14/16 04:44	156-59-2	
trans-1,2-Dichloroethene	**0.35J**	ug/L	1.0	0.20	1		11/14/16 04:44	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 04:44	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 04:44	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 04:44	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 04:44	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 04:44	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 04:44	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 04:44	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 04:44	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 04:44	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 04:44	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 04:44	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 04:44	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 04:44	79-00-5	
Trichloroethene	**411**	ug/L	5.0	0.85	5		11/15/16 18:54	79-01-6	
Vinyl chloride	**0.79J**	ug/L	1.0	0.13	1		11/14/16 04:44	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 04:44	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	99	%	77-130		1		11/14/16 04:44	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	81-127		1		11/14/16 04:44	17060-07-0	
Toluene-d8 (S)	97	%	80-120		1		11/14/16 04:44	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/14/16 04:44		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-185-201611 **Lab ID: 60231848003** Collected: 11/08/16 16:40 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/14/16 04:29	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/14/16 04:29	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 04:29	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/14/16 04:29	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/14/16 04:29	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 04:29	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 04:29	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 04:29	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 04:29	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 04:29	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/14/16 04:29	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/14/16 04:29	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 04:29	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 04:29	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 04:29	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 04:29	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/14/16 04:29	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 04:29	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 04:29	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 04:29	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 04:29	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 04:29	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 04:29	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 04:29	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 04:29	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 04:29	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 04:29	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 04:29	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 04:29	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 04:29	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 04:29	79-00-5	
Trichloroethene	**3.1**	ug/L	1.0	0.17	1		11/14/16 04:29	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/14/16 04:29	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 04:29	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	102	%	77-130		1		11/14/16 04:29	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	81-127		1		11/14/16 04:29	17060-07-0	
Toluene-d8 (S)	100	%	80-120		1		11/14/16 04:29	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/14/16 04:29		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: IW-77-201611 **Lab ID: 60231848004** Collected: 11/08/16 09:29 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	**21.6**	ug/L	10.0	1.9	1		11/14/16 11:33	67-64-1	
Benzene	**0.11J**	ug/L	1.0	0.060	1		11/14/16 11:33	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 11:33	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/14/16 11:33	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/14/16 11:33	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 11:33	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 11:33	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 11:33	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 11:33	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 11:33	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/14/16 11:33	67-66-3	
Chloromethane	**1.6**	ug/L	1.0	0.080	1		11/14/16 11:33	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 11:33	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 11:33	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 11:33	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 11:33	75-35-4	
cis-1,2-Dichloroethene	**2.1**	ug/L	1.0	0.080	1		11/14/16 11:33	156-59-2	
trans-1,2-Dichloroethene	**0.43J**	ug/L	1.0	0.20	1		11/14/16 11:33	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 11:33	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 11:33	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 11:33	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 11:33	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 11:33	591-78-6	
Methylene chloride	**0.27J**	ug/L	1.0	0.15	1		11/14/16 11:33	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 11:33	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 11:33	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 11:33	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 11:33	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 11:33	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 11:33	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 11:33	79-00-5	
Trichloroethene	**137**	ug/L	1.0	0.17	1		11/14/16 11:33	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/14/16 11:33	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 11:33	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	98	%	77-130		1		11/14/16 11:33	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	81-127		1		11/14/16 11:33	17060-07-0	
Toluene-d8 (S)	100	%	80-120		1		11/14/16 11:33	2037-26-5	
Preservation pH	**7.0**		0.10	0.10	1		11/14/16 11:33		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: IW-78-201611 **Lab ID: 60231848005** Collected: 11/08/16 11:37 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	**82.4**	ug/L	10.0	1.9	1		11/14/16 11:19	67-64-1	
Benzene	**0.11J**	ug/L	1.0	0.060	1		11/14/16 11:19	71-43-2	
Bromodichloromethane	**0.34J**	ug/L	1.0	0.19	1		11/14/16 11:19	75-27-4	
Bromoform	**11.5**	ug/L	1.0	0.070	1		11/14/16 11:19	75-25-2	
Bromomethane	**2.4J**	ug/L	5.0	0.16	1		11/14/16 11:19	74-83-9	
2-Butanone (MEK)	**6.1J**	ug/L	10.0	0.59	1		11/14/16 11:19	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 11:19	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 11:19	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 11:19	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 11:19	75-00-3	
Chloroform	**0.16J**	ug/L	1.0	0.14	1		11/14/16 11:19	67-66-3	
Chloromethane	**7.5**	ug/L	1.0	0.080	1		11/14/16 11:19	74-87-3	
Dibromochloromethane	**0.76J**	ug/L	1.0	0.21	1		11/14/16 11:19	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 11:19	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 11:19	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 11:19	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/14/16 11:19	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 11:19	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 11:19	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 11:19	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 11:19	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 11:19	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 11:19	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 11:19	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 11:19	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 11:19	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 11:19	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 11:19	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 11:19	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 11:19	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 11:19	79-00-5	
Trichloroethene	**2.6**	ug/L	1.0	0.17	1		11/14/16 11:19	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/14/16 11:19	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 11:19	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	99	%	77-130		1		11/14/16 11:19	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	81-127		1		11/14/16 11:19	17060-07-0	
Toluene-d8 (S)	99	%	80-120		1		11/14/16 11:19	2037-26-5	
Preservation pH	**3.0**		0.10	0.10	1		11/14/16 11:19		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-22-201611 **Lab ID: 60231848006** Collected: 11/08/16 13:16 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/14/16 04:14	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/14/16 04:14	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 04:14	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/14/16 04:14	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/14/16 04:14	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 04:14	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 04:14	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 04:14	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 04:14	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 04:14	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/14/16 04:14	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/14/16 04:14	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 04:14	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 04:14	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 04:14	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 04:14	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/14/16 04:14	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 04:14	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 04:14	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 04:14	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 04:14	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 04:14	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 04:14	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 04:14	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 04:14	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 04:14	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 04:14	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 04:14	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 04:14	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 04:14	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 04:14	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/14/16 04:14	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/14/16 04:14	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 04:14	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	101	%	77-130		1		11/14/16 04:14	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	81-127		1		11/14/16 04:14	17060-07-0	
Toluene-d8 (S)	100	%	80-120		1		11/14/16 04:14	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/14/16 04:14		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-24-201611 **Lab ID: 60231848007** Collected: 11/08/16 16:35 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	**90.1**	ug/L	10.0	1.9	1		11/14/16 11:48	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/14/16 11:48	71-43-2	
Bromodichloromethane	**0.78J**	ug/L	1.0	0.19	1		11/14/16 11:48	75-27-4	
Bromoform	**59.2**	ug/L	1.0	0.070	1		11/14/16 11:48	75-25-2	
Bromomethane	**8.3**	ug/L	5.0	0.16	1		11/14/16 11:48	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 11:48	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 11:48	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 11:48	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 11:48	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 11:48	75-00-3	
Chloroform	**0.16J**	ug/L	1.0	0.14	1		11/14/16 11:48	67-66-3	
Chloromethane	**13.6**	ug/L	1.0	0.080	1		11/14/16 11:48	74-87-3	
Dibromochloromethane	**2.5**	ug/L	1.0	0.21	1		11/14/16 11:48	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 11:48	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 11:48	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 11:48	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/14/16 11:48	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 11:48	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 11:48	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 11:48	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 11:48	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 11:48	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 11:48	591-78-6	
Methylene chloride	**0.24J**	ug/L	1.0	0.15	1		11/14/16 11:48	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 11:48	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 11:48	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 11:48	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 11:48	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 11:48	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 11:48	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 11:48	79-00-5	
Trichloroethene	**4.2**	ug/L	1.0	0.17	1		11/14/16 11:48	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/14/16 11:48	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 11:48	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	77-130		1		11/14/16 11:48	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	81-127		1		11/14/16 11:48	17060-07-0	
Toluene-d8 (S)	100	%	80-120		1		11/14/16 11:48	2037-26-5	
Preservation pH	**3.0**		0.10	0.10	1		11/14/16 11:48		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-175-201611 **Lab ID: 60231848008** Collected: 11/08/16 12:40 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	**11.9**	ug/L	10.0	1.9	1		11/14/16 04:58	67-64-1	
Benzene	**0.17J**	ug/L	1.0	0.060	1		11/14/16 04:58	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 04:58	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/14/16 04:58	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/14/16 04:58	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 04:58	78-93-3	
Carbon disulfide	**0.37J**	ug/L	5.0	0.12	1		11/14/16 04:58	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 04:58	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 04:58	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 04:58	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/14/16 04:58	67-66-3	
Chloromethane	**0.50J**	ug/L	1.0	0.080	1		11/14/16 04:58	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 04:58	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 04:58	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 04:58	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 04:58	75-35-4	
cis-1,2-Dichloroethene	**0.49J**	ug/L	1.0	0.080	1		11/14/16 04:58	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 04:58	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 04:58	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 04:58	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 04:58	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 04:58	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 04:58	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 04:58	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 04:58	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 04:58	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 04:58	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 04:58	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 04:58	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 04:58	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 04:58	79-00-5	
Trichloroethene	**50.9**	ug/L	1.0	0.17	1		11/14/16 04:58	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/14/16 04:58	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 04:58	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	102	%	77-130		1		11/14/16 04:58	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	81-127		1		11/14/16 04:58	17060-07-0	
Toluene-d8 (S)	99	%	80-120		1		11/14/16 04:58	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/14/16 04:58		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: DUP-07-201611 **Lab ID: 60231848009** Collected: 11/08/16 10:35 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/14/16 05:13	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/14/16 05:13	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 05:13	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/14/16 05:13	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/14/16 05:13	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 05:13	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 05:13	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 05:13	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 05:13	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 05:13	75-00-3	
Chloroform	**0.16J**	ug/L	1.0	0.14	1		11/14/16 05:13	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/14/16 05:13	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 05:13	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 05:13	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 05:13	107-06-2	
1,1-Dichloroethene	**1.7**	ug/L	1.0	0.20	1		11/14/16 05:13	75-35-4	
cis-1,2-Dichloroethene	**24.3**	ug/L	1.0	0.080	1		11/14/16 05:13	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 05:13	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 05:13	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 05:13	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 05:13	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 05:13	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 05:13	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 05:13	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 05:13	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 05:13	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 05:13	79-34-5	
Tetrachloroethene	**0.18J**	ug/L	1.0	0.10	1		11/14/16 05:13	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 05:13	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 05:13	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 05:13	79-00-5	
Trichloroethene	**453**	ug/L	5.0	0.85	5		11/15/16 19:09	79-01-6	
Vinyl chloride	**0.45J**	ug/L	1.0	0.13	1		11/14/16 05:13	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 05:13	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	101	%	77-130		1		11/14/16 05:13	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	81-127		1		11/14/16 05:13	17060-07-0	
Toluene-d8 (S)	101	%	80-120		1		11/14/16 05:13	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/14/16 05:13		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-57R-201611 **Lab ID: 60231848010** Collected: 11/08/16 10:35 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/14/16 05:27	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/14/16 05:27	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 05:27	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/14/16 05:27	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/14/16 05:27	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 05:27	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 05:27	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 05:27	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 05:27	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 05:27	75-00-3	
Chloroform	**0.14J**	ug/L	1.0	0.14	1		11/14/16 05:27	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/14/16 05:27	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 05:27	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 05:27	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 05:27	107-06-2	
1,1-Dichloroethene	**1.9**	ug/L	1.0	0.20	1		11/14/16 05:27	75-35-4	
cis-1,2-Dichloroethene	**23.0**	ug/L	1.0	0.080	1		11/14/16 05:27	156-59-2	
trans-1,2-Dichloroethene	**0.23J**	ug/L	1.0	0.20	1		11/14/16 05:27	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 05:27	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 05:27	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 05:27	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 05:27	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 05:27	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 05:27	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 05:27	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 05:27	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 05:27	79-34-5	
Tetrachloroethene	**0.18J**	ug/L	1.0	0.10	1		11/14/16 05:27	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 05:27	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 05:27	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 05:27	79-00-5	
Trichloroethene	**441**	ug/L	5.0	0.85	5		11/16/16 00:57	79-01-6	
Vinyl chloride	**0.44J**	ug/L	1.0	0.13	1		11/14/16 05:27	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 05:27	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	101	%	77-130		1		11/14/16 05:27	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	81-127		1		11/14/16 05:27	17060-07-0	
Toluene-d8 (S)	98	%	80-120		1		11/14/16 05:27	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/14/16 05:27		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-56R-201611 **Lab ID: 60231848011** Collected: 11/08/16 09:05 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/14/16 05:42	67-64-1	
Benzene	**0.17J**	ug/L	1.0	0.060	1		11/14/16 05:42	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 05:42	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/14/16 05:42	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/14/16 05:42	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 05:42	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 05:42	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 05:42	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 05:42	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 05:42	75-00-3	
Chloroform	**0.31J**	ug/L	1.0	0.14	1		11/14/16 05:42	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/14/16 05:42	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 05:42	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 05:42	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 05:42	107-06-2	
1,1-Dichloroethene	**1.9**	ug/L	1.0	0.20	1		11/14/16 05:42	75-35-4	
cis-1,2-Dichloroethene	**27.8**	ug/L	1.0	0.080	1		11/14/16 05:42	156-59-2	
trans-1,2-Dichloroethene	**0.35J**	ug/L	1.0	0.20	1		11/14/16 05:42	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 05:42	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 05:42	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 05:42	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 05:42	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 05:42	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 05:42	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 05:42	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 05:42	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 05:42	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 05:42	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 05:42	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 05:42	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 05:42	79-00-5	
Trichloroethene	**679**	ug/L	10.0	1.7	10		11/16/16 01:11	79-01-6	
Vinyl chloride	**0.37J**	ug/L	1.0	0.13	1		11/14/16 05:42	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 05:42	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	77-130		1		11/14/16 05:42	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	81-127		1		11/14/16 05:42	17060-07-0	
Toluene-d8 (S)	100	%	80-120		1		11/14/16 05:42	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/14/16 05:42		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-176-201611 **Lab ID: 60231848012** Collected: 11/08/16 14:55 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/16/16 22:16	67-64-1	
Benzene	**0.11J**	ug/L	1.0	0.060	1		11/16/16 22:16	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 22:16	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 22:16	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 22:16	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 22:16	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 22:16	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 22:16	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 22:16	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 22:16	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/16/16 22:16	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 22:16	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 22:16	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 22:16	75-34-3	
1,2-Dichloroethane	**0.12J**	ug/L	1.0	0.12	1		11/16/16 22:16	107-06-2	
1,1-Dichloroethene	**3.1**	ug/L	1.0	0.20	1		11/16/16 22:16	75-35-4	
cis-1,2-Dichloroethene	**202**	ug/L	10.0	0.80	10		11/14/16 05:56	156-59-2	
trans-1,2-Dichloroethene	**1.8**	ug/L	1.0	0.20	1		11/16/16 22:16	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 22:16	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 22:16	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 22:16	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 22:16	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 22:16	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/16/16 22:16	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/16/16 22:16	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 22:16	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 22:16	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 22:16	127-18-4	
Toluene	**0.31J**	ug/L	1.0	0.17	1		11/16/16 22:16	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 22:16	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 22:16	79-00-5	L3
Trichloroethene	**320**	ug/L	10.0	1.7	10		11/14/16 05:56	79-01-6	
Vinyl chloride	**1.6**	ug/L	1.0	0.13	1		11/16/16 22:16	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 22:16	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	77-130		1		11/16/16 22:16	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	81-127		1		11/16/16 22:16	17060-07-0	
Toluene-d8 (S)	94	%	80-120		1		11/16/16 22:16	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 22:16		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-87-201611 **Lab ID: 60231848013** Collected: 11/08/16 17:00 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	**507**	ug/L	50.0	8.8	1	11/11/16 11:45	11/14/16 17:05	7439-89-6	
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/16/16 22:45	67-64-1	
Benzene	**0.12J**	ug/L	1.0	0.060	1		11/16/16 22:45	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 22:45	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 22:45	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 22:45	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 22:45	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 22:45	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 22:45	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 22:45	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 22:45	75-00-3	
Chloroform	**0.32J**	ug/L	1.0	0.14	1		11/16/16 22:45	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 22:45	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 22:45	124-48-1	
1,1-Dichloroethane	**2.3**	ug/L	1.0	0.050	1		11/16/16 22:45	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 22:45	107-06-2	
1,1-Dichloroethene	**6.2**	ug/L	1.0	0.20	1		11/16/16 22:45	75-35-4	
cis-1,2-Dichloroethene	**51.9**	ug/L	1.0	0.080	1		11/16/16 22:45	156-59-2	
trans-1,2-Dichloroethene	**0.96J**	ug/L	1.0	0.20	1		11/16/16 22:45	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 22:45	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 22:45	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 22:45	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 22:45	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 22:45	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/16/16 22:45	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/16/16 22:45	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 22:45	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 22:45	79-34-5	
Tetrachloroethene	**4.7**	ug/L	1.0	0.10	1		11/16/16 22:45	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/16/16 22:45	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 22:45	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 22:45	79-00-5	L3
Trichloroethene	**701**	ug/L	20.0	3.4	20		11/14/16 06:11	79-01-6	
Vinyl chloride	**0.25J**	ug/L	1.0	0.13	1		11/16/16 22:45	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 22:45	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	109	%	77-130		1		11/16/16 22:45	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	81-127		1		11/16/16 22:45	17060-07-0	
Toluene-d8 (S)	93	%	80-120		1		11/16/16 22:45	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 22:45		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4								
Iron, Ferric	**0.46**	mg/L	0.20		1		11/15/16 00:00	7439-89-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-87-201611 **Lab ID: 60231848013** Collected: 11/08/16 17:00 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D								
Sulfide, Total	ND	mg/L	0.050	0.019	1		11/14/16 12:08	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	**15.3**	mg/L	1.0	0.15	1		11/16/16 16:31	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	**3.0**	mg/L	0.10	0.012	1		11/09/16 15:17		
Nitrogen, Nitrite	ND	mg/L	0.10	0.010	1		11/09/16 15:17		
Nitrogen, NO2 plus NO3	**3.0**	mg/L	0.10	0.012	1		11/09/16 15:17		
5310C TOC	Analytical Method: SM 5310C								
Total Organic Carbon	**0.80J**	mg/L	1.0	0.054	1		11/12/16 15:07	7440-44-0	B

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-89-201611 **Lab ID: 60231848014** Collected: 11/08/16 15:15 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	**40.4J**	ug/L	50.0	8.8	1	11/11/16 11:45	11/14/16 17:07	7439-89-6	
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/15/16 22:17	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/15/16 22:17	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/15/16 22:17	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/15/16 22:17	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/15/16 22:17	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/15/16 22:17	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/15/16 22:17	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/15/16 22:17	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/15/16 22:17	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/15/16 22:17	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/15/16 22:17	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/15/16 22:17	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/15/16 22:17	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/15/16 22:17	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/15/16 22:17	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 22:17	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/15/16 22:17	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 22:17	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/15/16 22:17	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/15/16 22:17	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/15/16 22:17	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/15/16 22:17	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/15/16 22:17	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/15/16 22:17	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/15/16 22:17	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/15/16 22:17	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/15/16 22:17	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/15/16 22:17	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/15/16 22:17	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/15/16 22:17	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/15/16 22:17	79-00-5	
Trichloroethene	**13.4**	ug/L	1.0	0.17	1		11/15/16 22:17	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/15/16 22:17	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/15/16 22:17	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	77-130		1		11/15/16 22:17	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	81-127		1		11/15/16 22:17	17060-07-0	
Toluene-d8 (S)	96	%	80-120		1		11/15/16 22:17	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/15/16 22:17		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4								
Iron, Ferric	ND	mg/L	0.20		1		11/15/16 00:00	7439-89-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-89-201611 **Lab ID: 60231848014** Collected: 11/08/16 15:15 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D								
Sulfide, Total	ND	mg/L	0.050	0.019	1		11/14/16 12:09	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	**12.7**	mg/L	1.0	0.15	1		11/16/16 16:45	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	**108**	mg/L	5.0	0.60	50		11/09/16 15:30		
Nitrogen, Nitrite	ND	mg/L	5.0	0.52	50		11/09/16 15:30		
Nitrogen, NO2 plus NO3	**108**	mg/L	5.0	0.60	50		11/09/16 15:30		
5310C TOC	Analytical Method: SM 5310C								
Total Organic Carbon	**1.9**	mg/L	1.0	0.054	1		11/12/16 15:20	7440-44-0	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: TMW-11-201611 **Lab ID: 60231848015** Collected: 11/08/16 09:27 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	**7730**	ug/L	50.0	8.8	1	11/11/16 11:45	11/14/16 17:09	7439-89-6	
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	**5.0J**	ug/L	10.0	1.9	1		11/16/16 22:31	67-64-1	
Benzene	**0.10J**	ug/L	1.0	0.060	1		11/16/16 22:31	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 22:31	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 22:31	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 22:31	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 22:31	78-93-3	
Carbon disulfide	**0.26J**	ug/L	5.0	0.12	1		11/16/16 22:31	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 22:31	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 22:31	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 22:31	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/16/16 22:31	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 22:31	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 22:31	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 22:31	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 22:31	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 22:31	75-35-4	
cis-1,2-Dichloroethene	**4.7**	ug/L	1.0	0.080	1		11/16/16 22:31	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 22:31	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 22:31	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 22:31	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 22:31	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 22:31	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 22:31	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/16/16 22:31	75-09-2	
4-Methyl-2-pentanone (MIBK)	**1.1J**	ug/L	10.0	0.42	1		11/16/16 22:31	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 22:31	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 22:31	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 22:31	127-18-4	
Toluene	**0.87J**	ug/L	1.0	0.17	1		11/16/16 22:31	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 22:31	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 22:31	79-00-5	L3
Trichloroethene	**1.2**	ug/L	1.0	0.17	1		11/16/16 22:31	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/16/16 22:31	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 22:31	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	77-130		1		11/16/16 22:31	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	81-127		1		11/16/16 22:31	17060-07-0	
Toluene-d8 (S)	98	%	80-120		1		11/16/16 22:31	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 22:31		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4								
Iron, Ferric	**4.4**	mg/L	0.20		1		11/15/16 00:00	7439-89-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: TMW-11-201611 **Lab ID: 60231848015** Collected: 11/08/16 09:27 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D								
Sulfide, Total	ND	mg/L	0.050	0.019	1		11/14/16 12:09	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	**0.68J**	mg/L	1.0	0.15	1		11/16/16 17:00	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	ND	mg/L	0.10	0.012	1		11/09/16 15:21		
Nitrogen, Nitrite	**0.019J**	mg/L	0.10	0.010	1		11/09/16 15:21		
Nitrogen, NO2 plus NO3	ND	mg/L	0.10	0.012	1		11/09/16 15:21		
5310C TOC	Analytical Method: SM 5310C								
Total Organic Carbon	**29.4**	mg/L	3.0	0.16	3		11/15/16 13:45	7440-44-0	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: DUP-05-201611 **Lab ID: 60231848016** Collected: 11/08/16 17:00 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/16/16 00:13	67-64-1	
Benzene	**0.11J**	ug/L	1.0	0.060	1		11/16/16 00:13	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 00:13	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 00:13	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 00:13	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 00:13	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 00:13	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 00:13	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 00:13	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 00:13	75-00-3	
Chloroform	**0.36J**	ug/L	1.0	0.14	1		11/16/16 00:13	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 00:13	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 00:13	124-48-1	
1,1-Dichloroethane	**2.2**	ug/L	1.0	0.050	1		11/16/16 00:13	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 00:13	107-06-2	
1,1-Dichloroethene	**6.4**	ug/L	1.0	0.20	1		11/16/16 00:13	75-35-4	
cis-1,2-Dichloroethene	**49.0**	ug/L	1.0	0.080	1		11/16/16 00:13	156-59-2	
trans-1,2-Dichloroethene	**0.86J**	ug/L	1.0	0.20	1		11/16/16 00:13	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 00:13	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 00:13	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 00:13	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 00:13	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 00:13	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/16/16 00:13	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/16/16 00:13	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 00:13	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 00:13	79-34-5	
Tetrachloroethene	**5.1**	ug/L	1.0	0.10	1		11/16/16 00:13	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/16/16 00:13	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 00:13	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 00:13	79-00-5	
Trichloroethene	**948**	ug/L	10.0	1.7	10		11/16/16 23:29	79-01-6	
Vinyl chloride	**0.39J**	ug/L	1.0	0.13	1		11/16/16 00:13	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 00:13	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	104	%	77-130		1		11/16/16 00:13	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	81-127		1		11/16/16 00:13	17060-07-0	
Toluene-d8 (S)	97	%	80-120		1		11/16/16 00:13	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 00:13		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-190-201611 **Lab ID: 60231848017** Collected: 11/08/16 15:15 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	**2.6J**	ug/L	10.0	1.9	1		11/15/16 22:31	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/15/16 22:31	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/15/16 22:31	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/15/16 22:31	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/15/16 22:31	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/15/16 22:31	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/15/16 22:31	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/15/16 22:31	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/15/16 22:31	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/15/16 22:31	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/15/16 22:31	67-66-3	
Chloromethane	**0.52J**	ug/L	1.0	0.080	1		11/15/16 22:31	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/15/16 22:31	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/15/16 22:31	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/15/16 22:31	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 22:31	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/15/16 22:31	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 22:31	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/15/16 22:31	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/15/16 22:31	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/15/16 22:31	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/15/16 22:31	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/15/16 22:31	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/15/16 22:31	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/15/16 22:31	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/15/16 22:31	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/15/16 22:31	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/15/16 22:31	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/15/16 22:31	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/15/16 22:31	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/15/16 22:31	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/15/16 22:31	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/15/16 22:31	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/15/16 22:31	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	93	%	77-130		1		11/15/16 22:31	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	81-127		1		11/15/16 22:31	17060-07-0	
Toluene-d8 (S)	93	%	80-120		1		11/15/16 22:31	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/15/16 22:31		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-98-201611 **Lab ID: 60231848018** Collected: 11/08/16 13:15 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/15/16 22:46	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/15/16 22:46	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/15/16 22:46	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/15/16 22:46	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/15/16 22:46	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/15/16 22:46	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/15/16 22:46	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/15/16 22:46	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/15/16 22:46	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/15/16 22:46	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/15/16 22:46	67-66-3	
Chloromethane	**0.39J**	ug/L	1.0	0.080	1		11/15/16 22:46	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/15/16 22:46	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/15/16 22:46	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/15/16 22:46	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 22:46	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/15/16 22:46	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 22:46	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/15/16 22:46	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/15/16 22:46	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/15/16 22:46	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/15/16 22:46	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/15/16 22:46	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/15/16 22:46	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/15/16 22:46	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/15/16 22:46	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/15/16 22:46	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/15/16 22:46	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/15/16 22:46	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/15/16 22:46	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/15/16 22:46	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/15/16 22:46	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/15/16 22:46	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/15/16 22:46	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	77-130		1		11/15/16 22:46	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	81-127		1		11/15/16 22:46	17060-07-0	
Toluene-d8 (S)	94	%	80-120		1		11/15/16 22:46	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/15/16 22:46		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-191-201611 **Lab ID: 60231848019** Collected: 11/08/16 16:35 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/15/16 23:00	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/15/16 23:00	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/15/16 23:00	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/15/16 23:00	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/15/16 23:00	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/15/16 23:00	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/15/16 23:00	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/15/16 23:00	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/15/16 23:00	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/15/16 23:00	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/15/16 23:00	67-66-3	
Chloromethane	**0.32J**	ug/L	1.0	0.080	1		11/15/16 23:00	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/15/16 23:00	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/15/16 23:00	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/15/16 23:00	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 23:00	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/15/16 23:00	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 23:00	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/15/16 23:00	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/15/16 23:00	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/15/16 23:00	10061-02-6	R1
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/15/16 23:00	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/15/16 23:00	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/15/16 23:00	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/15/16 23:00	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/15/16 23:00	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/15/16 23:00	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/15/16 23:00	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/15/16 23:00	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/15/16 23:00	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/15/16 23:00	79-00-5	R1
Trichloroethene	ND	ug/L	1.0	0.17	1		11/15/16 23:00	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/15/16 23:00	75-01-4	R1
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/15/16 23:00	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	98	%	77-130		1		11/15/16 23:00	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	81-127		1		11/15/16 23:00	17060-07-0	
Toluene-d8 (S)	100	%	80-120		1		11/15/16 23:00	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/15/16 23:00		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-97-201611 **Lab ID: 60231848020** Collected: 11/08/16 11:25 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/15/16 23:15	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/15/16 23:15	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/15/16 23:15	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/15/16 23:15	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/15/16 23:15	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/15/16 23:15	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/15/16 23:15	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/15/16 23:15	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/15/16 23:15	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/15/16 23:15	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/15/16 23:15	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/15/16 23:15	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/15/16 23:15	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/15/16 23:15	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/15/16 23:15	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 23:15	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/15/16 23:15	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 23:15	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/15/16 23:15	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/15/16 23:15	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/15/16 23:15	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/15/16 23:15	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/15/16 23:15	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/15/16 23:15	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/15/16 23:15	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/15/16 23:15	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/15/16 23:15	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/15/16 23:15	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/15/16 23:15	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/15/16 23:15	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/15/16 23:15	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/15/16 23:15	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/15/16 23:15	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/15/16 23:15	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	77-130		1		11/15/16 23:15	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	81-127		1		11/15/16 23:15	17060-07-0	
Toluene-d8 (S)	96	%	80-120		1		11/15/16 23:15	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/15/16 23:15		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-96-201611 **Lab ID: 60231848021** Collected: 11/08/16 10:15 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/15/16 23:30	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/15/16 23:30	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/15/16 23:30	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/15/16 23:30	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/15/16 23:30	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/15/16 23:30	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/15/16 23:30	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/15/16 23:30	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/15/16 23:30	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/15/16 23:30	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/15/16 23:30	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/15/16 23:30	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/15/16 23:30	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/15/16 23:30	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/15/16 23:30	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 23:30	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/15/16 23:30	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 23:30	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/15/16 23:30	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/15/16 23:30	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/15/16 23:30	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/15/16 23:30	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/15/16 23:30	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/15/16 23:30	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/15/16 23:30	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/15/16 23:30	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/15/16 23:30	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/15/16 23:30	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/15/16 23:30	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/15/16 23:30	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/15/16 23:30	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/15/16 23:30	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/15/16 23:30	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/15/16 23:30	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	101	%	77-130		1		11/15/16 23:30	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	81-127		1		11/15/16 23:30	17060-07-0	
Toluene-d8 (S)	94	%	80-120		1		11/15/16 23:30	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/15/16 23:30		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: MW-184-201611 **Lab ID: 60231848022** Collected: 11/08/16 08:25 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/15/16 23:44	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/15/16 23:44	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/15/16 23:44	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/15/16 23:44	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/15/16 23:44	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/15/16 23:44	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/15/16 23:44	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/15/16 23:44	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/15/16 23:44	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/15/16 23:44	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/15/16 23:44	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/15/16 23:44	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/15/16 23:44	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/15/16 23:44	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/15/16 23:44	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 23:44	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/15/16 23:44	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 23:44	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/15/16 23:44	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/15/16 23:44	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/15/16 23:44	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/15/16 23:44	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/15/16 23:44	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/15/16 23:44	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/15/16 23:44	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/15/16 23:44	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/15/16 23:44	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/15/16 23:44	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/15/16 23:44	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/15/16 23:44	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/15/16 23:44	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/15/16 23:44	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/15/16 23:44	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/15/16 23:44	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	77-130		1		11/15/16 23:44	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	81-127		1		11/15/16 23:44	17060-07-0	
Toluene-d8 (S)	106	%	80-120		1		11/15/16 23:44	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/15/16 23:44		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: EB-02-201611 **Lab ID: 60231848023** Collected: 11/08/16 17:00 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/15/16 23:59	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/15/16 23:59	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/15/16 23:59	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/15/16 23:59	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/15/16 23:59	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/15/16 23:59	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/15/16 23:59	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/15/16 23:59	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/15/16 23:59	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/15/16 23:59	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/15/16 23:59	67-66-3	
Chloromethane	**0.25J**	ug/L	1.0	0.080	1		11/15/16 23:59	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/15/16 23:59	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/15/16 23:59	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/15/16 23:59	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 23:59	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/15/16 23:59	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 23:59	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/15/16 23:59	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/15/16 23:59	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/15/16 23:59	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/15/16 23:59	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/15/16 23:59	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/15/16 23:59	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/15/16 23:59	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/15/16 23:59	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/15/16 23:59	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/15/16 23:59	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/15/16 23:59	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/15/16 23:59	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/15/16 23:59	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/15/16 23:59	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/15/16 23:59	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/15/16 23:59	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	98	%	77-130		1		11/15/16 23:59	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	81-127		1		11/15/16 23:59	17060-07-0	
Toluene-d8 (S)	87	%	80-120		1		11/15/16 23:59	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/15/16 23:59		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: TMW-10-201611 **Lab ID: 60231848024** Collected: 11/08/16 09:17 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	**133**	ug/L	50.0	8.8	1	11/11/16 11:45	11/14/16 17:12	7439-89-6	
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/16/16 23:00	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/16/16 23:00	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 23:00	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 23:00	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 23:00	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 23:00	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 23:00	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 23:00	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 23:00	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 23:00	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/16/16 23:00	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 23:00	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 23:00	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 23:00	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 23:00	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 23:00	75-35-4	
cis-1,2-Dichloroethene	**4.4**	ug/L	1.0	0.080	1		11/16/16 23:00	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 23:00	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 23:00	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 23:00	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 23:00	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 23:00	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 23:00	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/16/16 23:00	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/16/16 23:00	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 23:00	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 23:00	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 23:00	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/16/16 23:00	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 23:00	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 23:00	79-00-5	L3
Trichloroethene	**95.4**	ug/L	1.0	0.17	1		11/16/16 23:00	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/16/16 23:00	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 23:00	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	95	%	77-130		1		11/16/16 23:00	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	81-127		1		11/16/16 23:00	17060-07-0	
Toluene-d8 (S)	92	%	80-120		1		11/16/16 23:00	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 23:00		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4								
Iron, Ferric	ND	mg/L	0.20		1		11/15/16 00:00	7439-89-6	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: TMW-10-201611 **Lab ID: 60231848024** Collected: 11/08/16 09:17 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D								
Sulfide, Total	ND	mg/L	0.050	0.019	1		11/14/16 12:09	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	**2.4**	mg/L	1.0	0.15	1		11/16/16 17:42	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	**1.1**	mg/L	0.10	0.012	1		11/09/16 15:09		
Nitrogen, Nitrite	**0.97**	mg/L	0.10	0.010	1		11/09/16 15:09		
Nitrogen, NO2 plus NO3	**2.1**	mg/L	0.10	0.012	1		11/09/16 15:09		
5310C TOC	Analytical Method: SM 5310C								
Total Organic Carbon	**0.75J**	mg/L	1.0	0.054	1		11/15/16 12:30	7440-44-0	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: ITMW-9-201611 **Lab ID: 60231848025** Collected: 11/08/16 16:00 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	**22.7J**	ug/L	50.0	8.8	1	11/11/16 11:45	11/14/16 17:14	7439-89-6	
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/16/16 09:26	67-64-1	R1
Benzene	ND	ug/L	1.0	0.060	1		11/16/16 09:26	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 09:26	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 09:26	75-25-2	L3
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 09:26	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 09:26	78-93-3	R1
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 09:26	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 09:26	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 09:26	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 09:26	75-00-3	
Chloroform	**0.36J**	ug/L	1.0	0.14	1		11/16/16 09:26	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 09:26	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 09:26	124-48-1	M1
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 09:26	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 09:26	107-06-2	
1,1-Dichloroethene	**0.48J**	ug/L	1.0	0.20	1		11/16/16 09:26	75-35-4	
cis-1,2-Dichloroethene	**73.0**	ug/L	1.0	0.080	1		11/16/16 09:26	156-59-2	M1
trans-1,2-Dichloroethene	**0.88J**	ug/L	1.0	0.20	1		11/16/16 09:26	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 09:26	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 09:26	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 09:26	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 09:26	100-41-4	
2-Hexanone	ND	ug/L					1/16/16 09:26	591-78-6	
Methylene chloride	**0.24J**	ug/L					1/16/16 09:26	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L					1/16/16 09:26	108-10-1	R1
Styrene	ND	ug/L					1/16/16 09:26	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L					1/16/16 09:26	79-34-5	L3
Tetrachloroethene	ND	ug/L					1/16/16 09:26	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/16/16 09:26	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 09:26	71-55-6	R1
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 09:26	79-00-5	
Vinyl chloride	**0.17J**	ug/L	1.0	0.13	1		11/16/16 09:26	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 09:26	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	77-130		1		11/16/16 09:26	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	81-127		1		11/16/16 09:26	17060-07-0	
Toluene-d8 (S)	85	%	80-120		1		11/16/16 09:26	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 09:26		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4								
Iron, Ferric	ND	mg/L	0.20		1		11/15/16 00:00	7439-89-6	

No result for TCE?

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: ITMW-9-201611 **Lab ID: 60231848025** Collected: 11/08/16 16:00 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D								
Sulfide, Total	ND	mg/L	0.050	0.019	1		11/14/16 12:10	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	**19.7**	mg/L	1.0	0.15	1		11/16/16 17:56	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	**12.4**	mg/L	0.50	0.060	5		11/09/16 15:26		M1
Nitrogen, Nitrite	ND	mg/L	0.50	0.052	5		11/09/16 15:26		
Nitrogen, NO2 plus NO3	**12.4**	mg/L	0.50	0.060	5		11/09/16 15:26		
5310C TOC	Analytical Method: SM 5310C								
Total Organic Carbon	**0.50J**	mg/L	1.0	0.054	1		11/15/16 12:42	7440-44-0	B

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: TB-1-201611 **Lab ID: 60231848026** Collected: 11/08/16 08:25 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/15/16 20:50	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/15/16 20:50	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/15/16 20:50	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/15/16 20:50	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/15/16 20:50	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/15/16 20:50	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/15/16 20:50	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/15/16 20:50	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/15/16 20:50	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/15/16 20:50	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/15/16 20:50	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/15/16 20:50	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/15/16 20:50	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/15/16 20:50	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/15/16 20:50	107-06-2	
1,1-Dichloroethene	**0.23J**	ug/L	1.0	0.20	1		11/15/16 20:50	75-35-4	B
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/15/16 20:50	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 20:50	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/15/16 20:50	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/15/16 20:50	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/15/16 20:50	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/15/16 20:50	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/15/16 20:50	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/15/16 20:50	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/15/16 20:50	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/15/16 20:50	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/15/16 20:50	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/15/16 20:50	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/15/16 20:50	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/15/16 20:50	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/15/16 20:50	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/15/16 20:50	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/15/16 20:50	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/15/16 20:50	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	77-130		1		11/15/16 20:50	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	81-127		1		11/15/16 20:50	17060-07-0	
Toluene-d8 (S)	87	%	80-120		1		11/15/16 20:50	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/15/16 20:50		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231848

Sample: TB-3-201611 **Lab ID: 60231848027** Collected: 11/08/16 08:25 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/15/16 21:05	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/15/16 21:05	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/15/16 21:05	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/15/16 21:05	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/15/16 21:05	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/15/16 21:05	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/15/16 21:05	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/15/16 21:05	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/15/16 21:05	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/15/16 21:05	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/15/16 21:05	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/15/16 21:05	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/15/16 21:05	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/15/16 21:05	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/15/16 21:05	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 21:05	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/15/16 21:05	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/15/16 21:05	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/15/16 21:05	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/15/16 21:05	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/15/16 21:05	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/15/16 21:05	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/15/16 21:05	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/15/16 21:05	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/15/16 21:05	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/15/16 21:05	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/15/16 21:05	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/15/16 21:05	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/15/16 21:05	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/15/16 21:05	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/15/16 21:05	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/15/16 21:05	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/15/16 21:05	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/15/16 21:05	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	77-130		1		11/15/16 21:05	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	81-127		1		11/15/16 21:05	17060-07-0	
Toluene-d8 (S)	99	%	80-120		1		11/15/16 21:05	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/15/16 21:05		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

QC Batch: 454539 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET
Associated Lab Samples: 60231848013, 60231848014, 60231848015, 60231848024, 60231848025

METHOD BLANK: 1861302 Matrix: Water
Associated Lab Samples: 60231848013, 60231848014, 60231848015, 60231848024, 60231848025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron	ug/L	ND	50.0	8.8	11/15/16 12:51	

LABORATORY CONTROL SAMPLE: 1861303

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron	ug/L	10000	10000	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1861304 1861305

Parameter	Units	60231955004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron	ug/L	5940	10000	10000	15500	15000	96	91	75-125	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1861306 1861307

Parameter	Units	60231848025 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron	ug/L	22.7J	10000	10000	9390	9720	94	97	75-125	3	20	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

QC Batch: 454535 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60231848001, 60231848002, 60231848003, 60231848006, 60231848008, 60231848009, 60231848010, 60231848011, 60231848012, 60231848013

METHOD BLANK: 1861274 Matrix: Water
Associated Lab Samples: 60231848001, 60231848002, 60231848003, 60231848006, 60231848008, 60231848009, 60231848010, 60231848011, 60231848012, 60231848013

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	0.11	11/14/16 01:50	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.15	11/14/16 01:50	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.20	11/14/16 01:50	
1,1-Dichloroethane	ug/L	ND	1.0	0.050	11/14/16 01:50	
1,1-Dichloroethene	ug/L	ND	1.0	0.20	11/14/16 01:50	
1,2-Dichloroethane	ug/L	ND	1.0	0.12	11/14/16 01:50	
1,2-Dichloropropane	ug/L	ND	1.0	0.16	11/14/16 01:50	
2-Butanone (MEK)	ug/L	ND	10.0	0.59	11/14/16 01:50	
2-Hexanone	ug/L	ND	10.0	1.2	11/14/16 01:50	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	0.42	11/14/16 01:50	
Acetone	ug/L	ND	10.0	1.9	11/14/16 01:50	
Benzene	ug/L	ND	1.0	0.060	11/14/16 01:50	
Bromodichloromethane	ug/L	ND	1.0	0.19	11/14/16 01:50	
Bromoform	ug/L	ND	1.0	0.070	11/14/16 01:50	
Bromomethane	ug/L	ND	5.0	0.16	11/14/16 01:50	
Carbon disulfide	ug/L	ND	5.0	0.12	11/14/16 01:50	
Carbon tetrachloride	ug/L	ND	1.0	0.18	11/14/16 01:50	
Chlorobenzene	ug/L	ND	1.0	0.21	11/14/16 01:50	
Chloroethane	ug/L	ND	1.0	0.15	11/14/16 01:50	
Chloroform	ug/L	ND	1.0	0.14	11/14/16 01:50	
Chloromethane	ug/L	ND	1.0	0.080	11/14/16 01:50	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.080	11/14/16 01:50	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.14	11/14/16 01:50	
Dibromochloromethane	ug/L	ND	1.0	0.21	11/14/16 01:50	
Ethylbenzene	ug/L	ND	1.0	0.18	11/14/16 01:50	
Methylene chloride	ug/L	ND	1.0	0.15	11/14/16 01:50	
Styrene	ug/L	ND	1.0	0.12	11/14/16 01:50	
Tetrachloroethene	ug/L	ND	1.0	0.10	11/14/16 01:50	
Toluene	ug/L	ND	1.0	0.17	11/14/16 01:50	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.20	11/14/16 01:50	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.12	11/14/16 01:50	
Trichloroethene	ug/L	ND	1.0	0.17	11/14/16 01:50	
Vinyl chloride	ug/L	ND	1.0	0.13	11/14/16 01:50	
Xylene (Total)	ug/L	ND	3.0	0.42	11/14/16 01:50	
1,2-Dichloroethane-d4 (S)	%	90	81-127		11/14/16 01:50	
4-Bromofluorobenzene (S)	%	98	77-130		11/14/16 01:50	
Toluene-d8 (S)	%	98	80-120		11/14/16 01:50	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

LABORATORY CONTROL SAMPLE: 1861275

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	20.7	104	81-116	
1,1,2,2-Tetrachloroethane	ug/L	20	20.5	103	72-117	
1,1,2-Trichloroethane	ug/L	20	21.1	105	79-108	
1,1-Dichloroethane	ug/L	20	20.5	102	83-117	
1,1-Dichloroethene	ug/L	20	20.3	101	74-114	
1,2-Dichloroethane	ug/L	20	19.3	97	72-116	
1,2-Dichloropropane	ug/L	20	20.1	100	80-120	
2-Butanone (MEK)	ug/L	100	86.3	86	67-129	
2-Hexanone	ug/L	100	96.7	97	70-128	
4-Methyl-2-pentanone (MIBK)	ug/L	100	91.6	92	80-120	
Acetone	ug/L	100	79.7	80	56-142	
Benzene	ug/L	20	21.1	106	79-116	
Bromodichloromethane	ug/L	20	21.4	107	80-120	
Bromoform	ug/L	20	19.8	99	73-114	
Bromomethane	ug/L	20	15.6	78	49-153	
Carbon disulfide	ug/L	20	19.5	97	82-121	
Carbon tetrachloride	ug/L	20	19.5	97	80-116	
Chlorobenzene	ug/L	20	20.1	100	80-120	
Chloroethane	ug/L	20	21.4	107	67-124	
Chloroform	ug/L	20	19.8	99	79-120	
Chloromethane	ug/L	20	15.9	80	10-192	
cis-1,2-Dichloroethene	ug/L	20	19.5	97	80-120	
cis-1,3-Dichloropropene	ug/L	20	18.9	94	80-120	
Dibromochloromethane	ug/L	20	22.1	110	80-120	
Ethylbenzene	ug/L	20	19.8	99	80-120	
Methylene chloride	ug/L	20	17.3	86	80-120	
Styrene	ug/L	20	21.0	105	80-120	
Tetrachloroethene	ug/L	20	21.7	109	80-120	
Toluene	ug/L	20	22.0	110	80-120	
trans-1,2-Dichloroethene	ug/L	20	20.0	100	78-108	
trans-1,3-Dichloropropene	ug/L	20	19.2	96	85-120	
Trichloroethene	ug/L	20	19.1	96	76-114	
Vinyl chloride	ug/L	20	19.4	97	69-129	
Xylene (Total)	ug/L	60	61.3	102	80-120	
1,2-Dichloroethane-d4 (S)	%			97	81-127	
4-Bromofluorobenzene (S)	%			97	77-130	
Toluene-d8 (S)	%			104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1861276 1861277

Parameter	Units	60231721006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	21.4	21.6	107	108	70-135	1	12	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	19.7	19.6	99	98	54-136	0	15	
1,1,2-Trichloroethane	ug/L	ND	20	20	19.4	18.7	97	94	70-113	4	15	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1861276 1861277

Parameter	Units	60231721006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethane	ug/L	ND	20	20	21.6	21.1	108	106	80-122	2	13	
1,1-Dichloroethene	ug/L	ND	20	20	20.8	22.3	104	111	73-118	7	14	
1,2-Dichloroethane	ug/L	ND	20	20	19.5	19.9	98	100	54-137	2	41	
1,2-Dichloropropane	ug/L	ND	20	20	20.6	20.5	103	103	77-116	0	12	
2-Butanone (MEK)	ug/L	ND	100	100	83.1	82.4	83	82	30-127	1	18	
2-Hexanone	ug/L	ND	100	100	85.0	87.3	85	87	44-124	3	18	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	100	86.7	90.5	87	90	70-124	4	15	
Acetone	ug/L	ND	100	100	79.1	85.5	78	84	10-132	8	20	
Benzene	ug/L	ND	20	20	21.2	21.8	106	109	37-151	3	40	
Bromodichloromethane	ug/L	ND	20	20	20.9	20.6	104	103	76-118	1	11	
Bromoform	ug/L	ND	20	20	19.8	19.0	99	95	64-113	4	15	
Bromomethane	ug/L	ND	20	20	15.3	17.7	77	89	41-154	14	43	
Carbon disulfide	ug/L	ND	20	20	20.5	21.3	103	106	80-139	4	17	
Carbon tetrachloride	ug/L	ND	20	20	21.5	21.8	107	109	75-127	1	13	
Chlorobenzene	ug/L	ND	20	20	21.0	20.6	105	103	79-113	2	13	
Chloroethane	ug/L	ND	20	20	21.8	22.1	109	110	53-154	1	20	
Chloroform	ug/L	0.27J	20	20	20.1	20.4	99	101	74-115	2	12	
Chloromethane	ug/L	ND	20	20	15.3	21.6	77	108	33-169	34	72	
cis-1,2-Dichloroethene	ug/L	ND	20	20	19.3	20.6	96	103	58-139	7	40	
cis-1,3-Dichloropropene	ug/L	ND	20	20	16.0	15.8	80	79	70-120	2	14	
Dibromochloromethane	ug/L	ND	20	20	20.3	19.8	102	99	77-114	2	13	
Ethylbenzene	ug/L	ND	20	20	21.4	22.6	107	113	29-151	5	45	
Methylene chloride	ug/L	ND	20	20	18.4	19.4	92	97	76-120	5	13	
Styrene	ug/L	ND	20	20	20.3	20.9	102	105	66-127	3	15	
Tetrachloroethene	ug/L	ND	20	20	21.8	20.9	109	104	77-118	4	14	
Toluene	ug/L	ND	20	20	21.3	21.5	106	108	37-147	1	43	
trans-1,2-Dichloroethene	ug/L	ND	20	20	20.9	21.4	104	107	69-125	2	16	
trans-1,3-Dichloropropene	ug/L	ND	20	20	16.1	15.6	81	78	71-118	4	13	
Trichloroethene	ug/L	ND	20	20	20.7	20.5	104	103	71-116	1	14	
Vinyl chloride	ug/L	ND	20	20	18.8	23.1	94	116	65-142	20	22	
Xylene (Total)	ug/L	ND	60	60	64.0	63.7	107	106	27-156	0	46	
1,2-Dichloroethane-d4 (S)	%						96	99	81-127			
4-Bromofluorobenzene (S)	%						99	99	77-130			
Toluene-d8 (S)	%						101	101	80-120			
Preservation pH		1.0			1.0	1.0				0		

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

QC Batch: 454817 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60231848002, 60231848009

METHOD BLANK: 1862602 Matrix: Water
Associated Lab Samples: 60231848002, 60231848009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Trichloroethene	ug/L	ND	1.0	0.17	11/15/16 14:19	
1,2-Dichloroethane-d4 (S)	%	100	81-127		11/15/16 14:19	
4-Bromofluorobenzene (S)	%	102	77-130		11/15/16 14:19	
Toluene-d8 (S)	%	95	80-120		11/15/16 14:19	

LABORATORY CONTROL SAMPLE: 1862603

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Trichloroethene	ug/L	20	20.7	103	76-114	
1,2-Dichloroethane-d4 (S)	%			95	81-127	
4-Bromofluorobenzene (S)	%			97	77-130	
Toluene-d8 (S)	%			94	80-120	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

QC Batch: 454950 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60231848010, 60231848011, 60231848014, 60231848016, 60231848017, 60231848018, 60231848019, 60231848020, 60231848021, 60231848022, 60231848023, 60231848026, 60231848027

METHOD BLANK: 1863034 Matrix: Water
Associated Lab Samples: 60231848010, 60231848011, 60231848014, 60231848016, 60231848017, 60231848018, 60231848019, 60231848020, 60231848021, 60231848022, 60231848023, 60231848026, 60231848027

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	0.11	11/15/16 20:36	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.15	11/15/16 20:36	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.20	11/15/16 20:36	
1,1-Dichloroethane	ug/L	ND	1.0	0.050	11/15/16 20:36	
1,1-Dichloroethene	ug/L	0.27J	1.0	0.20	11/15/16 20:36	
1,2-Dichloroethane	ug/L	ND	1.0	0.12	11/15/16 20:36	
1,2-Dichloropropane	ug/L	ND	1.0	0.16	11/15/16 20:36	
2-Butanone (MEK)	ug/L	ND	10.0	0.59	11/15/16 20:36	
2-Hexanone	ug/L	ND	10.0	1.2	11/15/16 20:36	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	0.42	11/15/16 20:36	
Acetone	ug/L	ND	10.0	1.9	11/15/16 20:36	
Benzene	ug/L	ND	1.0	0.060	11/15/16 20:36	
Bromodichloromethane	ug/L	ND	1.0	0.19	11/15/16 20:36	
Bromoform	ug/L	ND	1.0	0.070	11/15/16 20:36	
Bromomethane	ug/L	ND	5.0	0.16	11/15/16 20:36	
Carbon disulfide	ug/L	ND	5.0	0.12	11/15/16 20:36	
Carbon tetrachloride	ug/L	ND	1.0	0.18	11/15/16 20:36	
Chlorobenzene	ug/L	ND	1.0	0.21	11/15/16 20:36	
Chloroethane	ug/L	ND	1.0	0.15	11/15/16 20:36	
Chloroform	ug/L	ND	1.0	0.14	11/15/16 20:36	
Chloromethane	ug/L	ND	1.0	0.080	11/15/16 20:36	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.080	11/15/16 20:36	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.14	11/15/16 20:36	
Dibromochloromethane	ug/L	ND	1.0	0.21	11/15/16 20:36	
Ethylbenzene	ug/L	ND	1.0	0.18	11/15/16 20:36	
Methylene chloride	ug/L	ND	1.0	0.15	11/15/16 20:36	
Styrene	ug/L	ND	1.0	0.12	11/15/16 20:36	
Tetrachloroethene	ug/L	ND	1.0	0.10	11/15/16 20:36	
Toluene	ug/L	ND	1.0	0.17	11/15/16 20:36	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.20	11/15/16 20:36	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.12	11/15/16 20:36	
Trichloroethene	ug/L	ND	1.0	0.17	11/15/16 20:36	
Vinyl chloride	ug/L	ND	1.0	0.13	11/15/16 20:36	
Xylene (Total)	ug/L	ND	3.0	0.42	11/15/16 20:36	
1,2-Dichloroethane-d4 (S)	%	98	81-127		11/15/16 20:36	
4-Bromofluorobenzene (S)	%	101	77-130		11/15/16 20:36	
Toluene-d8 (S)	%	90	80-120		11/15/16 20:36	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

LABORATORY CONTROL SAMPLE: 1863035

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	21.8	109	81-116	
1,1,2,2-Tetrachloroethane	ug/L	20	20.1	101	72-117	
1,1,2-Trichloroethane	ug/L	20	20.6	103	79-108	
1,1-Dichloroethane	ug/L	20	21.5	108	83-117	
1,1-Dichloroethene	ug/L	20	21.2	106	74-114	
1,2-Dichloroethane	ug/L	20	20.4	102	72-116	
1,2-Dichloropropane	ug/L	20	20.6	103	80-120	
2-Butanone (MEK)	ug/L	100	99.9	100	67-129	
2-Hexanone	ug/L	100	105	105	70-128	
4-Methyl-2-pentanone (MIBK)	ug/L	100	94.3	94	80-120	
Acetone	ug/L	100	99.8	100	56-142	
Benzene	ug/L	20	21.5	107	79-116	
Bromodichloromethane	ug/L	20	21.2	106	80-120	
Bromoform	ug/L	20	20.7	103	73-114	
Bromomethane	ug/L	20	19.4	97	49-153	
Carbon disulfide	ug/L	20	20.1	101	82-121	
Carbon tetrachloride	ug/L	20	20.9	105	80-116	
Chlorobenzene	ug/L	20	20.5	103	80-120	
Chloroethane	ug/L	20	21.8	109	67-124	
Chloroform	ug/L	20	20.4	102	79-120	
Chloromethane	ug/L	20	21.7	108	10-192	
cis-1,2-Dichloroethene	ug/L	20	19.7	99	80-120	
cis-1,3-Dichloropropene	ug/L	20	19.2	96	80-120	
Dibromochloromethane	ug/L	20	22.2	111	80-120	
Ethylbenzene	ug/L	20	21.0	105	80-120	
Methylene chloride	ug/L	20	18.3	92	80-120	
Styrene	ug/L	20	21.1	106	80-120	
Tetrachloroethene	ug/L	20	24.0	120	80-120	
Toluene	ug/L	20	20.7	104	80-120	
trans-1,2-Dichloroethene	ug/L	20	20.9	104	78-108	
trans-1,3-Dichloropropene	ug/L	20	22.1	110	85-120	
Trichloroethene	ug/L	20	20.8	104	76-114	
Vinyl chloride	ug/L	20	20.1	101	69-129	
Xylene (Total)	ug/L	60	62.7	105	80-120	
1,2-Dichloroethane-d4 (S)	%			100	81-127	
4-Bromofluorobenzene (S)	%			97	77-130	
Toluene-d8 (S)	%			94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1863036 1863037

Parameter	Units	60231848019 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	22.3	20.9	111	104	70-135	7	12	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	19.4	18.7	97	93	54-136	4	15	
1,1,2-Trichloroethane	ug/L	ND	20	20	16.7	20.8	84	104	70-113	22	15	R1

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1863036 1863037

Parameter	Units	60231848019 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethane	ug/L	ND	20	20	20.7	20.0	103	100	80-122	3	13	
1,1-Dichloroethene	ug/L	ND	20	20	21.5	19.8	107	99	73-118	8	14	
1,2-Dichloroethane	ug/L	ND	20	20	19.2	19.2	96	96	54-137	0	41	
1,2-Dichloropropane	ug/L	ND	20	20	19.5	19.7	98	99	77-116	1	12	
2-Butanone (MEK)	ug/L	ND	100	100	82.3	81.9	82	82	30-127	0	18	
2-Hexanone	ug/L	ND	100	100	80.8	93.2	81	93	44-124	14	18	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	100	83.0	81.6	83	82	70-124	2	15	
Acetone	ug/L	ND	100	100	83.0	73.1	83	73	10-132	13	20	
Benzene	ug/L	ND	20	20	21.5	20.5	107	102	37-151	5	40	
Bromodichloromethane	ug/L	ND	20	20	19.6	20.1	98	101	76-118	3	11	
Bromoform	ug/L	ND	20	20	18.4	21.4	92	107	64-113	15	15	
Bromomethane	ug/L	ND	20	20	15.7	18.0	78	90	41-154	14	43	
Carbon disulfide	ug/L	ND	20	20	21.5	19.6	108	98	80-139	9	17	
Carbon tetrachloride	ug/L	ND	20	20	21.4	20.0	107	100	75-127	7	13	
Chlorobenzene	ug/L	ND	20	20	20.5	21.0	103	105	79-113	2	13	
Chloroethane	ug/L	ND	20	20	24.0	20.0	120	100	53-154	18	20	
Chloroform	ug/L	ND	20	20	19.7	18.9	99	94	74-115	4	12	
Chloromethane	ug/L	0.32J	20	20	30.4	19.2	150	94	33-169	45	72	
cis-1,2-Dichloroethene	ug/L	ND	20	20	19.3	18.0	96	90	58-139	7	40	
cis-1,3-Dichloropropene	ug/L	ND	20	20	17.9	16.9	89	84	70-120	6	14	
Dibromochloromethane	ug/L	ND	20	20	18.8	21.5	94	108	77-114	13	13	
Ethylbenzene	ug/L	ND	20	20	21.9	22.0	109	110	29-151	1	45	
Methylene chloride	ug/L	ND	20	20	19.2	17.3	96	86	76-120	11	13	
Styrene	ug/L	ND	20	20	19.8	20.7	99	104	66-127	5	15	
Tetrachloroethene	ug/L	ND	20	20	20.9	22.7	104	114	77-118	8	14	
Toluene	ug/L	ND	20	20	17.9	21.1	90	106	37-147	17	43	
trans-1,2-Dichloroethene	ug/L	ND	20	20	20.7	19.7	103	98	69-125	5	16	
trans-1,3-Dichloropropene	ug/L	ND	20	20	17.0	19.5	85	97	71-118	14	13	R1
Trichloroethene	ug/L	ND	20	20	20.4	20.7	102	103	71-116	1	14	
Vinyl chloride	ug/L	ND	20	20	22.9	18.2	114	91	65-142	23	22	R1
Xylene (Total)	ug/L	ND	60	60	63.9	64.3	106	107	27-156	1	46	
1,2-Dichloroethane-d4 (S)	%						96	94	81-127			
4-Bromofluorobenzene (S)	%						99	93	77-130			
Toluene-d8 (S)	%						84	96	80-120			
Preservation pH		1.0			1.0	1.0				0		

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

QC Batch: 454968
QC Batch Method: EPA 5030B/8260
Analysis Method: EPA 5030B/8260
Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60231848025

METHOD BLANK: 1863067
Matrix: Water
Associated Lab Samples: 60231848025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	0.11	11/16/16 08:42	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.15	11/16/16 08:42	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.20	11/16/16 08:42	
1,1-Dichloroethane	ug/L	ND	1.0	0.050	11/16/16 08:42	
1,1-Dichloroethene	ug/L	ND	1.0	0.20	11/16/16 08:42	
1,2-Dichloroethane	ug/L	ND	1.0	0.12	11/16/16 08:42	
1,2-Dichloropropane	ug/L	ND	1.0	0.16	11/16/16 08:42	
2-Butanone (MEK)	ug/L	ND	10.0	0.59	11/16/16 08:42	
2-Hexanone	ug/L	ND	10.0	1.2	11/16/16 08:42	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	0.42	11/16/16 08:42	
Acetone	ug/L	ND	10.0	1.9	11/16/16 08:42	
Benzene	ug/L	ND	1.0	0.060	11/16/16 08:42	
Bromodichloromethane	ug/L	ND	1.0	0.19	11/16/16 08:42	
Bromoform	ug/L	ND	1.0	0.070	11/16/16 08:42	
Bromomethane	ug/L	ND	5.0	0.16	11/16/16 08:42	
Carbon disulfide	ug/L	ND	5.0	0.12	11/16/16 08:42	
Carbon tetrachloride	ug/L	ND	1.0	0.18	11/16/16 08:42	
Chlorobenzene	ug/L	ND	1.0	0.21	11/16/16 08:42	
Chloroethane	ug/L	ND	1.0	0.15	11/16/16 08:42	
Chloroform	ug/L	ND	1.0	0.14	11/16/16 08:42	
Chloromethane	ug/L	ND	1.0	0.080	11/16/16 08:42	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.080	11/16/16 08:42	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.14	11/16/16 08:42	
Dibromochloromethane	ug/L	ND	1.0	0.21	11/16/16 08:42	
Ethylbenzene	ug/L	ND	1.0	0.18	11/16/16 08:42	
Methylene chloride	ug/L	ND	1.0	0.15	11/16/16 08:42	
Styrene	ug/L	ND	1.0	0.12	11/16/16 08:42	
Tetrachloroethene	ug/L	ND	1.0	0.10	11/16/16 08:42	
Toluene	ug/L	ND	1.0	0.17	11/16/16 08:42	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.20	11/16/16 08:42	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.12	11/16/16 08:42	
Vinyl chloride	ug/L	ND	1.0	0.13	11/16/16 08:42	
Xylene (Total)	ug/L	ND	3.0	0.42	11/16/16 08:42	
1,2-Dichloroethane-d4 (S)	%	99	81-127		11/16/16 08:42	
4-Bromofluorobenzene (S)	%	97	77-130		11/16/16 08:42	
Toluene-d8 (S)	%	91	80-120		11/16/16 08:42	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

LABORATORY CONTROL SAMPLE: 1863068

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	20.0	100	81-116	
1,1,2,2-Tetrachloroethane	ug/L	20	24.6	123	72-117	L0
1,1,2-Trichloroethane	ug/L	20	21.7	108	79-108	
1,1-Dichloroethane	ug/L	20	18.7	94	83-117	
1,1-Dichloroethene	ug/L	20	18.0	90	74-114	
1,2-Dichloroethane	ug/L	20	20.6	103	72-116	
1,2-Dichloropropane	ug/L	20	22.2	111	80-120	
2-Butanone (MEK)	ug/L	100	92.7	93	67-129	
2-Hexanone	ug/L	100	102	102	70-128	
4-Methyl-2-pentanone (MIBK)	ug/L	100	101	101	80-120	
Acetone	ug/L	100	87.1	87	56-142	
Benzene	ug/L	20	21.6	108	79-116	
Bromodichloromethane	ug/L	20	21.3	107	80-120	
Bromoform	ug/L	20	23.3	116	73-114	L0
Bromomethane	ug/L	20	18.7	94	49-153	
Carbon disulfide	ug/L	20	18.1	90	82-121	
Carbon tetrachloride	ug/L	20	19.2	96	80-116	
Chlorobenzene	ug/L	20	21.0	105	80-120	
Chloroethane	ug/L	20	18.5	92	67-124	
Chloroform	ug/L	20	19.2	96	79-120	
Chloromethane	ug/L	20	14.7	74	10-192	
cis-1,2-Dichloroethene	ug/L	20	18.5	93	80-120	
cis-1,3-Dichloropropene	ug/L	20	21.2	106	80-120	
Dibromochloromethane	ug/L	20	22.8	114	80-120	
Ethylbenzene	ug/L	20	21.3	107	80-120	
Methylene chloride	ug/L	20	16.4	82	80-120	
Styrene	ug/L	20	21.6	108	80-120	
Tetrachloroethene	ug/L	20	21.4	107	80-120	
Toluene	ug/L	20	21.0	105	80-120	
trans-1,2-Dichloroethene	ug/L	20	18.5	93	78-108	
trans-1,3-Dichloropropene	ug/L	20	21.7	109	85-120	
Vinyl chloride	ug/L	20	16.6	83	69-129	
Xylene (Total)	ug/L	60	63.0	105	80-120	
1,2-Dichloroethane-d4 (S)	%			97	81-127	
4-Bromofluorobenzene (S)	%			108	77-130	
Toluene-d8 (S)	%			96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1863069 1863070

Parameter	Units	60231848025 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	21.4	24.7	107	123	70-135	14	12	R1
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	19.4	21.0	97	105	54-136	8	15	
1,1,2-Trichloroethane	ug/L	ND	20	20	20.3	20.2	101	101	70-113	0	15	
1,1-Dichloroethane	ug/L	ND	20	20	19.6	21.8	98	109	80-122	11	13	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1863069 1863070

Parameter	Units	60231848025 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethene	ug/L	0.48J	20	20	20.6	22.3	101	109	73-118	8	14	
1,2-Dichloroethane	ug/L	ND	20	20	20.0	21.4	100	107	54-137	7	41	
1,2-Dichloropropane	ug/L	ND	20	20	20.8	21.2	104	106	77-116	2	12	
2-Butanone (MEK)	ug/L	ND	100	100	77.2	96.9	77	97	30-127	23	18	R1
2-Hexanone	ug/L	ND	100	100	91.5	99.2	91	99	44-124	8	18	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	100	81.2	95.9	81	96	70-124	17	15	R1
Acetone	ug/L	ND	100	100	72.2	94.1	70	92	10-132	26	20	R1
Benzene	ug/L	ND	20	20	22.4	22.2	112	111	37-151	1	40	
Bromodichloromethane	ug/L	ND	20	20	20.7	21.9	103	110	76-118	6	11	
Bromoform	ug/L	ND	20	20	20.0	20.4	100	102	64-113	2	15	
Bromomethane	ug/L	ND	20	20	15.0	19.3	75	97	41-154	25	43	
Carbon disulfide	ug/L	ND	20	20	19.3	21.5	96	108	80-139	11	17	
Carbon tetrachloride	ug/L	ND	20	20	20.5	22.5	103	112	75-127	9	13	
Chlorobenzene	ug/L	ND	20	20	21.0	20.7	105	103	79-113	2	13	
Chloroethane	ug/L	ND	20	20	20.1	21.7	101	109	53-154	8	20	
Chloroform	ug/L	0.36J	20	20	19.8	22.1	97	109	74-115	11	12	
Chloromethane	ug/L	ND	20	20	14.6	19.3	73	97	33-169	28	72	
cis-1,2-Dichloroethene	ug/L	73.0	20	20	86.0	101	65	140	58-139	16	40	M1
cis-1,3-Dichloropropene	ug/L	ND	20	20	17.1	18.8	85	94	70-120	10	14	
Dibromochloromethane	ug/L	ND	20	20	20.7	22.9	103	115	77-114	10	13	M1
Ethylbenzene	ug/L	ND	20	20	22.0	21.0	110	105	29-151	4	45	
Methylene chloride	ug/L	0.24J	20	20	16.7	19.0	82	94	76-120	13	13	
Styrene	ug/L	ND	20	20	19.8	19.5	99	97	66-127	2	15	
Tetrachloroethene	ug/L	ND	20	20	21.6	22.7	108	113	77-118	5	14	
Toluene	ug/L	ND	20	20	20.2	20.3	101	102	37-147	0	43	
trans-1,2-Dichloroethene	ug/L	0.88J	20	20	20.2	22.3	96	107	69-125	10	16	
trans-1,3-Dichloropropene	ug/L	ND	20	20	18.2	18.5	91	93	71-118	2	13	
Vinyl chloride	ug/L	0.17J	20	20	17.9	20.9	89	103	65-142	15	22	
Xylene (Total)	ug/L	ND	60	60	65.4	62.7	109	104	27-156	4	46	
1,2-Dichloroethane-d4 (S)	%						96	104	81-127			
4-Bromofluorobenzene (S)	%						97	101	77-130			
Toluene-d8 (S)	%						95	92	80-120			
Preservation pH		1.0			1.0	1.0				0		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1863071 1863072

Parameter	Units	60231925008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	20.7	21.9	104	109	70-135	5	12	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	18.9	22.5	95	113	54-136	17	15	R1
1,1,2-Trichloroethane	ug/L	ND	20	20	20.7	20.5	103	102	70-113	1	15	
1,1-Dichloroethane	ug/L	ND	20	20	19.4	20.3	97	101	80-122	5	13	
1,1-Dichloroethene	ug/L	ND	20	20	19.3	21.4	97	107	73-118	10	14	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1863071 1863072

Parameter	Units	60231925008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dichloroethane	ug/L	ND	20	20	19.2	20.3	96	102	54-137	6	41	
1,2-Dichloropropane	ug/L	ND	20	20	19.3	20.6	96	103	77-116	7	12	
2-Butanone (MEK)	ug/L	ND	100	100	77.0	88.9	77	89	30-127	14	18	
2-Hexanone	ug/L	ND	100	100	89.5	93.9	90	94	44-124	5	18	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	100	78.4	90.2	78	90	70-124	14	15	
Acetone	ug/L	2.1J	100	100	78.9	84.2	77	82	10-132	6	20	
Benzene	ug/L	ND	20	20	22.0	21.8	110	109	37-151	1	40	
Bromodichloromethane	ug/L	ND	20	20	18.4	20.5	92	102	76-118	11	11	
Bromoform	ug/L	ND	20	20	20.9	21.8	104	109	64-113	4	15	
Bromomethane	ug/L	ND	20	20	17.5	19.4	87	97	41-154	10	43	
Carbon disulfide	ug/L	ND	20	20	19.6	20.2	98	101	80-139	3	17	
Carbon tetrachloride	ug/L	ND	20	20	20.5	22.1	102	110	75-127	8	13	
Chlorobenzene	ug/L	ND	20	20	21.1	21.2	106	106	79-113	0	13	
Chloroethane	ug/L	ND	20	20	21.0	20.6	105	103	53-154	2	20	
Chloroform	ug/L	ND	20	20	19.1	19.7	95	99	74-115	3	12	
Chloromethane	ug/L	ND	20	20	21.5	16.3	108	81	33-169	28	72	
cis-1,2-Dichloroethene	ug/L	ND	20	20	18.5	20.1	93	100	58-139	8	40	
cis-1,3-Dichloropropene	ug/L	ND	20	20	16.3	18.6	82	93	70-120	13	14	
Dibromochloromethane	ug/L	ND	20	20	21.3	21.3	106	107	77-114	0	13	
Ethylbenzene	ug/L	ND	20	20	22.5	21.8	113	109	29-151	3	45	
Methylene chloride	ug/L	ND	20	20	18.0	18.4	90	92	76-120	2	13	
Styrene	ug/L	ND	20	20	21.7	21.6	109	108	66-127	0	15	
Tetrachloroethene	ug/L	ND	20	20	23.0	21.4	115	107	77-118	7	14	
Toluene	ug/L	ND	20	20	20.4	20.2	102	101	37-147	1	43	
trans-1,2-Dichloroethene	ug/L	ND	20	20	18.9	20.3	94	101	69-125	7	16	
trans-1,3-Dichloropropene	ug/L	ND	20	20	18.2	18.7	91	93	71-118	2	13	
Vinyl chloride	ug/L	ND	20	20	19.8	19.8	99	99	65-142	0	22	
Xylene (Total)	ug/L	ND	60	60	66.1	69.5	110	116	27-156	5	46	
1,2-Dichloroethane-d4 (S)	%						94	98	81-127			
4-Bromofluorobenzene (S)	%						99	109	77-130			
Toluene-d8 (S)	%						95	94	80-120			
Preservation pH		1.0			1.0	1.0				0		

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

QC Batch: 455179 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60231848012, 60231848013, 60231848015, 60231848016, 60231848024

METHOD BLANK: 1863804 Matrix: Water
Associated Lab Samples: 60231848012, 60231848013, 60231848015, 60231848016, 60231848024

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	0.11	11/16/16 20:49	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.15	11/16/16 20:49	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.20	11/16/16 20:49	
1,1-Dichloroethane	ug/L	ND	1.0	0.050	11/16/16 20:49	
1,1-Dichloroethene	ug/L	ND	1.0	0.20	11/16/16 20:49	
1,2-Dichloroethane	ug/L	ND	1.0	0.12	11/16/16 20:49	
1,2-Dichloropropane	ug/L	ND	1.0	0.16	11/16/16 20:49	
2-Butanone (MEK)	ug/L	ND	10.0	0.59	11/16/16 20:49	
2-Hexanone	ug/L	ND	10.0	1.2	11/16/16 20:49	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	0.42	11/16/16 20:49	
Acetone	ug/L	ND	10.0	1.9	11/16/16 20:49	
Benzene	ug/L	ND	1.0	0.060	11/16/16 20:49	
Bromodichloromethane	ug/L	ND	1.0	0.19	11/16/16 20:49	
Bromoform	ug/L	ND	1.0	0.070	11/16/16 20:49	
Bromomethane	ug/L	ND	5.0	0.16	11/16/16 20:49	
Carbon disulfide	ug/L	ND	5.0	0.12	11/16/16 20:49	
Carbon tetrachloride	ug/L	ND	1.0	0.18	11/16/16 20:49	
Chlorobenzene	ug/L	ND	1.0	0.21	11/16/16 20:49	
Chloroethane	ug/L	ND	1.0	0.15	11/16/16 20:49	
Chloroform	ug/L	ND	1.0	0.14	11/16/16 20:49	
Chloromethane	ug/L	ND	1.0	0.080	11/16/16 20:49	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.080	11/16/16 20:49	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.14	11/16/16 20:49	
Dibromochloromethane	ug/L	ND	1.0	0.21	11/16/16 20:49	
Ethylbenzene	ug/L	ND	1.0	0.18	11/16/16 20:49	
Methylene chloride	ug/L	ND	1.0	0.15	11/16/16 20:49	
Styrene	ug/L	ND	1.0	0.12	11/16/16 20:49	
Tetrachloroethene	ug/L	ND	1.0	0.10	11/16/16 20:49	
Toluene	ug/L	ND	1.0	0.17	11/16/16 20:49	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.20	11/16/16 20:49	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.12	11/16/16 20:49	
Trichloroethene	ug/L	ND	1.0	0.17	11/16/16 20:49	
Vinyl chloride	ug/L	ND	1.0	0.13	11/16/16 20:49	
Xylene (Total)	ug/L	ND	3.0	0.42	11/16/16 20:49	
1,2-Dichloroethane-d4 (S)	%	88	81-127		11/16/16 20:49	
4-Bromofluorobenzene (S)	%	89	77-130		11/16/16 20:49	
Toluene-d8 (S)	%	99	80-120		11/16/16 20:49	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

LABORATORY CONTROL SAMPLE: 1863805

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	19.9	100	81-116	
1,1,2,2-Tetrachloroethane	ug/L	20	20.2	101	72-117	
1,1,2-Trichloroethane	ug/L	20	22.6	113	79-108	L0
1,1-Dichloroethane	ug/L	20	19.0	95	83-117	
1,1-Dichloroethene	ug/L	20	18.3	91	74-114	
1,2-Dichloroethane	ug/L	20	21.4	107	72-116	
1,2-Dichloropropane	ug/L	20	22.0	110	80-120	
2-Butanone (MEK)	ug/L	100	92.7	93	67-129	
2-Hexanone	ug/L	100	105	105	70-128	
4-Methyl-2-pentanone (MIBK)	ug/L	100	102	102	80-120	
Acetone	ug/L	100	86.8	87	56-142	
Benzene	ug/L	20	22.8	114	79-116	
Bromodichloromethane	ug/L	20	22.5	112	80-120	
Bromoform	ug/L	20	19.6	98	73-114	
Bromomethane	ug/L	20	17.3	86	49-153	
Carbon disulfide	ug/L	20	18.1	90	82-121	
Carbon tetrachloride	ug/L	20	19.4	97	80-116	
Chlorobenzene	ug/L	20	20.4	102	80-120	
Chloroethane	ug/L	20	17.9	89	67-124	
Chloroform	ug/L	20	19.9	100	79-120	
Chloromethane	ug/L	20	14.9	75	10-192	
cis-1,2-Dichloroethene	ug/L	20	19.3	96	80-120	
cis-1,3-Dichloropropene	ug/L	20	20.4	102	80-120	
Dibromochloromethane	ug/L	20	22.6	113	80-120	
Ethylbenzene	ug/L	20	20.3	102	80-120	
Methylene chloride	ug/L	20	16.7	83	80-120	
Styrene	ug/L	20	20.0	100	80-120	
Tetrachloroethene	ug/L	20	23.4	117	80-120	
Toluene	ug/L	20	22.1	111	80-120	
trans-1,2-Dichloroethene	ug/L	20	18.4	92	78-108	
trans-1,3-Dichloropropene	ug/L	20	21.8	109	85-120	
Trichloroethene	ug/L	20	21.8	109	76-114	
Vinyl chloride	ug/L	20	19.7	99	69-129	
Xylene (Total)	ug/L	60	59.2	99	80-120	
1,2-Dichloroethane-d4 (S)	%			92	81-127	
4-Bromofluorobenzene (S)	%			98	77-130	
Toluene-d8 (S)	%			98	80-120	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

QC Batch: 454708 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 7 day
Associated Lab Samples: 60231848004, 60231848005, 60231848007

METHOD BLANK: 1862328 Matrix: Water
Associated Lab Samples: 60231848004, 60231848005, 60231848007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	0.11	11/14/16 08:27	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.15	11/14/16 08:27	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.20	11/14/16 08:27	
1,1-Dichloroethane	ug/L	ND	1.0	0.050	11/14/16 08:27	
1,1-Dichloroethene	ug/L	ND	1.0	0.20	11/14/16 08:27	
1,2-Dichloroethane	ug/L	ND	1.0	0.12	11/14/16 08:27	
1,2-Dichloropropane	ug/L	ND	1.0	0.16	11/14/16 08:27	
2-Butanone (MEK)	ug/L	ND	10.0	0.59	11/14/16 08:27	
2-Hexanone	ug/L	ND	10.0	1.2	11/14/16 08:27	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	0.42	11/14/16 08:27	
Acetone	ug/L	ND	10.0	1.9	11/14/16 08:27	
Benzene	ug/L	ND	1.0	0.060	11/14/16 08:27	
Bromodichloromethane	ug/L	ND	1.0	0.19	11/14/16 08:27	
Bromoform	ug/L	ND	1.0	0.070	11/14/16 08:27	
Bromomethane	ug/L	ND	5.0	0.16	11/14/16 08:27	
Carbon disulfide	ug/L	ND	5.0	0.12	11/14/16 08:27	
Carbon tetrachloride	ug/L	ND	1.0	0.18	11/14/16 08:27	
Chlorobenzene	ug/L	ND	1.0	0.21	11/14/16 08:27	
Chloroethane	ug/L	ND	1.0	0.15	11/14/16 08:27	
Chloroform	ug/L	ND	1.0	0.14	11/14/16 08:27	
Chloromethane	ug/L	ND	1.0	0.080	11/14/16 08:27	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.080	11/14/16 08:27	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.14	11/14/16 08:27	
Dibromochloromethane	ug/L	ND	1.0	0.21	11/14/16 08:27	
Ethylbenzene	ug/L	ND	1.0	0.18	11/14/16 08:27	
Methylene chloride	ug/L	ND	1.0	0.15	11/14/16 08:27	
Styrene	ug/L	ND	1.0	0.12	11/14/16 08:27	
Tetrachloroethene	ug/L	ND	1.0	0.10	11/14/16 08:27	
Toluene	ug/L	ND	1.0	0.17	11/14/16 08:27	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.20	11/14/16 08:27	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.12	11/14/16 08:27	
Trichloroethene	ug/L	ND	1.0	0.17	11/14/16 08:27	
Vinyl chloride	ug/L	ND	1.0	0.13	11/14/16 08:27	
Xylene (Total)	ug/L	ND	3.0	0.42	11/14/16 08:27	
1,2-Dichloroethane-d4 (S)	%	99	81-127		11/14/16 08:27	
4-Bromofluorobenzene (S)	%	104	77-130		11/14/16 08:27	
Toluene-d8 (S)	%	99	80-120		11/14/16 08:27	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

LABORATORY CONTROL SAMPLE: 1862329

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	22.0	110	81-116	
1,1,2,2-Tetrachloroethane	ug/L	20	21.5	108	72-117	
1,1,2-Trichloroethane	ug/L	20	20.6	103	79-108	
1,1-Dichloroethane	ug/L	20	20.6	103	83-117	
1,1-Dichloroethene	ug/L	20	21.2	106	74-114	
1,2-Dichloroethane	ug/L	20	20.9	104	72-116	
1,2-Dichloropropane	ug/L	20	21.8	109	80-120	
2-Butanone (MEK)	ug/L	100	96.7	97	67-129	
2-Hexanone	ug/L	100	104	104	70-128	
4-Methyl-2-pentanone (MIBK)	ug/L	100	101	101	80-120	
Acetone	ug/L	100	95.5	96	56-142	
Benzene	ug/L	20	21.7	108	79-116	
Bromodichloromethane	ug/L	20	21.8	109	80-120	
Bromoform	ug/L	20	20.9	105	73-114	
Bromomethane	ug/L	20	17.0	85	49-153	
Carbon disulfide	ug/L	20	20.6	103	82-121	
Carbon tetrachloride	ug/L	20	21.0	105	80-116	
Chlorobenzene	ug/L	20	20.8	104	80-120	
Chloroethane	ug/L	20	19.6	98	67-124	
Chloroform	ug/L	20	20.2	101	79-120	
Chloromethane	ug/L	20	14.8	74	10-192	
cis-1,2-Dichloroethene	ug/L	20	20.3	102	80-120	
cis-1,3-Dichloropropene	ug/L	20	20.9	105	80-120	
Dibromochloromethane	ug/L	20	22.2	111	80-120	
Ethylbenzene	ug/L	20	22.0	110	80-120	
Methylene chloride	ug/L	20	17.9	90	80-120	
Styrene	ug/L	20	21.3	107	80-120	
Tetrachloroethene	ug/L	20	21.7	108	80-120	
Toluene	ug/L	20	21.1	105	80-120	
trans-1,2-Dichloroethene	ug/L	20	20.7	104	78-108	
trans-1,3-Dichloropropene	ug/L	20	19.8	99	85-120	
Trichloroethene	ug/L	20	20.2	101	76-114	
Vinyl chloride	ug/L	20	20.9	104	69-129	
Xylene (Total)	ug/L	60	64.4	107	80-120	
1,2-Dichloroethane-d4 (S)	%			97	81-127	
4-Bromofluorobenzene (S)	%			101	77-130	
Toluene-d8 (S)	%			98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1862330 1862331

Parameter	Units	60232152007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	22.3	21.5	111	107	70-135	4	12	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	19.6	21.0	98	105	54-136	7	15	
1,1,2-Trichloroethane	ug/L	ND	20	20	19.0	19.5	95	98	70-113	3	15	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1862330 1862331

Parameter	Units	60232152007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethane	ug/L	ND	20	20	21.9	21.6	109	108	80-122	1	13	
1,1-Dichloroethene	ug/L	ND	20	20	21.6	21.6	108	108	73-118	0	14	
1,2-Dichloroethane	ug/L	4.8	20	20	23.9	24.8	96	100	54-137	4	41	
1,2-Dichloropropane	ug/L	ND	20	20	20.4	21.0	102	105	77-116	3	12	
2-Butanone (MEK)	ug/L	ND	100	100	86.1	89.4	86	89	30-127	4	18	
2-Hexanone	ug/L	ND	100	100	88.7	95.6	89	96	44-124	7	18	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	100	96.2	97.1	96	97	70-124	1	15	
Acetone	ug/L	ND	100	100	83.4	85.8	81	83	10-132	3	20	
Benzene	ug/L	ND	20	20	21.4	21.3	107	107	37-151	0	40	
Bromodichloromethane	ug/L	ND	20	20	21.0	20.8	105	104	76-118	1	11	
Bromoform	ug/L	ND	20	20	19.4	19.9	97	100	64-113	3	15	
Bromomethane	ug/L	ND	20	20	20.6	22.8	103	114	41-154	10	43	
Carbon disulfide	ug/L	ND	20	20	21.7	21.1	109	105	80-139	3	17	
Carbon tetrachloride	ug/L	ND	20	20	21.6	21.2	108	106	75-127	2	13	
Chlorobenzene	ug/L	ND	20	20	21.0	20.6	105	103	79-113	2	13	
Chloroethane	ug/L	ND	20	20	22.8	21.6	114	108	53-154	6	20	
Chloroform	ug/L	ND	20	20	20.0	20.6	100	103	74-115	3	12	
Chloromethane	ug/L	ND	20	20	28.6	19.4	143	97	33-169	39	72	
cis-1,2-Dichloroethene	ug/L	ND	20	20	21.1	21.7	101	104	58-139	3	40	
cis-1,3-Dichloropropene	ug/L	ND	20	20	20.2	20.4	101	102	70-120	1	14	
Dibromochloromethane	ug/L	ND	20	20	20.3	20.7	102	104	77-114	2	13	
Ethylbenzene	ug/L	ND	20	20	21.9	21.4	109	107	29-151	2	45	
Methylene chloride	ug/L	ND	20	20	18.8	18.5	94	92	76-120	2	13	
Styrene	ug/L	ND	20	20	21.9	21.1	110	105	66-127	4	15	
Tetrachloroethene	ug/L	ND	20	20	22.0	22.3	110	112	77-118	1	14	
Toluene	ug/L	ND	20	20	21.2	20.6	106	103	37-147	3	43	
trans-1,2-Dichloroethene	ug/L	ND	20	20	21.5	21.2	108	106	69-125	1	16	
trans-1,3-Dichloropropene	ug/L	ND	20	20	19.5	19.8	97	99	71-118	2	13	
Trichloroethene	ug/L	3.1	20	20	24.9	24.3	109	106	71-116	3	14	
Vinyl chloride	ug/L	ND	20	20	24.2	21.2	121	106	65-142	13	22	
Xylene (Total)	ug/L	ND	60	60	66.3	62.7	110	105	27-156	5	46	
1,2-Dichloroethane-d4 (S)	%						93	97	81-127			
4-Bromofluorobenzene (S)	%						98	99	77-130			
Toluene-d8 (S)	%						97	96	80-120			
Preservation pH		7.0			7.0	7.0				0		

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

QC Batch: 454733 Analysis Method: SM 4500-S-2 D
QC Batch Method: SM 4500-S-2 D Analysis Description: 4500S2D Sulfide, Total
Associated Lab Samples: 60231848013, 60231848014, 60231848015, 60231848024, 60231848025

METHOD BLANK: 1862393 Matrix: Water
Associated Lab Samples: 60231848013, 60231848014, 60231848015, 60231848024, 60231848025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide, Total	mg/L	ND	0.050	0.019	11/14/16 12:08	

LABORATORY CONTROL SAMPLE: 1862394

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	.5	0.52	104	80-120	

MATRIX SPIKE SAMPLE: 1862395

Parameter	Units	60231848013 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	ND	.5	0.42	83	75-125	

SAMPLE DUPLICATE: 1862396

Parameter	Units	60231848025 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Total	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 1862397

Parameter	Units	60232095001 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Total	mg/L	ND	ND		20	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

QC Batch: 455175 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 60231848013, 60231848014, 60231848015, 60231848024, 60231848025

METHOD BLANK: 1863799 Matrix: Water
Associated Lab Samples: 60231848013, 60231848014, 60231848015, 60231848024, 60231848025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfate	mg/L	ND	1.0	0.15	11/16/16 08:42	

LABORATORY CONTROL SAMPLE: 1863800

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	5	5.1	102	90-110	

MATRIX SPIKE SAMPLE: 1863803

Parameter	Units	60231848025 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	19.7	5	25.7	120	80-120	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

QC Batch: 454180 Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Associated Lab Samples: 60231848013, 60231848014, 60231848015, 60231848024, 60231848025

METHOD BLANK: 1859716 Matrix: Water
Associated Lab Samples: 60231848013, 60231848014, 60231848015, 60231848024, 60231848025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.012	11/09/16 15:28	
Nitrogen, Nitrite	mg/L	ND	0.10	0.010	11/09/16 15:28	
Nitrogen, NO2 plus NO3	mg/L	ND	0.10	0.012	11/09/16 15:28	

LABORATORY CONTROL SAMPLE: 1859717

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.1	107	85-115	
Nitrogen, Nitrite	mg/L	1	0.97	97	90-110	
Nitrogen, NO2 plus NO3	mg/L	2	2.0	102	90-110	

MATRIX SPIKE SAMPLE: 1859720

Parameter	Units	60231848025 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	12.4	5	16.4	80	85-115	M1
Nitrogen, Nitrite	mg/L	ND	5	5.1	101	90-110	
Nitrogen, NO2 plus NO3	mg/L	12.4	10	21.4	91	90-110	

SAMPLE DUPLICATE: 1859719

Parameter	Units	60231805011 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Nitrate	mg/L	0.23	0.23	1	20	
Nitrogen, Nitrite	mg/L	0.022J	0.024J		20	
Nitrogen, NO2 plus NO3	mg/L	0.26	0.25	0	20	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

QC Batch: 454642 Analysis Method: SM 5310C
QC Batch Method: SM 5310C Analysis Description: 5310C Total Organic Carbon
Associated Lab Samples: 60231848013, 60231848014

METHOD BLANK: 1861911 Matrix: Water
Associated Lab Samples: 60231848013, 60231848014

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	0.085J	1.0	0.054	11/12/16 09:38	

LABORATORY CONTROL SAMPLE: 1861912

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	5	4.9	97	80-120	

MATRIX SPIKE SAMPLE: 1861913

Parameter	Units	60231927001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	1.4	5	4.5	62	80-120	M1

SAMPLE DUPLICATE: 1861914

Parameter	Units	60231927002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Organic Carbon	mg/L	1.4	1.4	4	25	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231848

QC Batch: 454961 Analysis Method: SM 5310C
QC Batch Method: SM 5310C Analysis Description: 5310C Total Organic Carbon
Associated Lab Samples: 60231848015, 60231848024, 60231848025

METHOD BLANK: 1863050 Matrix: Water
Associated Lab Samples: 60231848015, 60231848024, 60231848025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	0.063J	1.0	0.054	11/15/16 10:49	

LABORATORY CONTROL SAMPLE: 1863051

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	5	4.6	92	80-120	

MATRIX SPIKE SAMPLE: 1863053

Parameter	Units	60231848025 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	0.50J	5	4.9	89	80-120	

SAMPLE DUPLICATE: 1863052

Parameter	Units	60231810015 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Organic Carbon	mg/L	2740	2730	0	25	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALIFIERS

Project: FORT SMITH, AR
Pace Project No.: 60231848

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-K	Pace Analytical Services - Kansas City

BATCH QUALIFIERS

Batch: 454817

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

Batch: 455179

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

Batch: 455400

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

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L3	Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
R1	RPD value was outside control limits.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: FORT SMITH, AR
Pace Project No.: 60231848

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60231848013	**MW-87-201611**	EPA 3010	454539	EPA 6010	454595
60231848014	**MW-89-201611**	EPA 3010	454539	EPA 6010	454595
60231848015	**TMW-11-201611**	EPA 3010	454539	EPA 6010	454595
60231848024	**TMW-10-201611**	EPA 3010	454539	EPA 6010	454595
60231848025	**ITMW-9-201611**	EPA 3010	454539	EPA 6010	454595
60231848001	**MW-60R-201611**	EPA 5030B/8260	454535		
60231848002	**MW-46R-201611**	EPA 5030B/8260	454535		
60231848002	**MW-46R-201611**	EPA 5030B/8260	454817		
60231848003	**MW-185-201611**	EPA 5030B/8260	454535		
60231848006	**MW-22-201611**	EPA 5030B/8260	454535		
60231848008	**MW-175-201611**	EPA 5030B/8260	454535		
60231848009	**DUP-07-201611**	EPA 5030B/8260	454535		
60231848009	**DUP-07-201611**	EPA 5030B/8260	454817		
60231848010	**MW-57R-201611**	EPA 5030B/8260	454535		
60231848010	**MW-57R-201611**	EPA 5030B/8260	454950		
60231848011	**MW-56R-201611**	EPA 5030B/8260	454535		
60231848011	**MW-56R-201611**	EPA 5030B/8260	454950		
60231848012	**MW-176-201611**	EPA 5030B/8260	454535		
60231848012	**MW-176-201611**	EPA 5030B/8260	455179		
60231848013	**MW-87-201611**	EPA 5030B/8260	454535		
60231848013	**MW-87-201611**	EPA 5030B/8260	455179		
60231848014	**MW-89-201611**	EPA 5030B/8260	454950		
60231848015	**TMW-11-201611**	EPA 5030B/8260	455179		
60231848016	**DUP-05-201611**	EPA 5030B/8260	454950		
60231848016	**DUP-05-201611**	EPA 5030B/8260	455179		
60231848017	**MW-190-201611**	EPA 5030B/8260	454950		
60231848018	**MW-98-201611**	EPA 5030B/8260	454950		
60231848019	**MW-191-201611**	EPA 5030B/8260	454950		
60231848020	**MW-97-201611**	EPA 5030B/8260	454950		
60231848021	**MW-96-201611**	EPA 5030B/8260	454950		
60231848022	**MW-184-201611**	EPA 5030B/8260	454950		
60231848023	**EB-02-201611**	EPA 5030B/8260	454950		
60231848024	**TMW-10-201611**	EPA 5030B/8260	455179		
60231848025	**ITMW-9-201611**	EPA 5030B/8260	454968		
60231848025	**ITMW-9-201611**	EPA 5030B/8260	455400		
60231848026	**TB-1-201611**	EPA 5030B/8260	454950		
60231848027	**TB-3-201611**	EPA 5030B/8260	454950		
60231848004	**IW-77-201611**	EPA 5030B/8260	454708		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: FORT SMITH, AR
Pace Project No.: 60231848

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60231848005	**IW-78-201611**	EPA 5030B/8260	454708		
60231848007	**MW-24-201611**	EPA 5030B/8260	454708		
60231848013	**MW-87-201611**	SM 3500-Fe B#4	456110		
60231848014	**MW-89-201611**	SM 3500-Fe B#4	456110		
60231848015	**TMW-11-201611**	SM 3500-Fe B#4	456110		
60231848024	**TMW-10-201611**	SM 3500-Fe B#4	456110		
60231848025	**ITMW-9-201611**	SM 3500-Fe B#4	456110		
60231848013	**MW-87-201611**	SM 4500-S-2 D	454733		
60231848014	**MW-89-201611**	SM 4500-S-2 D	454733		
60231848015	**TMW-11-201611**	SM 4500-S-2 D	454733		
60231848024	**TMW-10-201611**	SM 4500-S-2 D	454733		
60231848025	**ITMW-9-201611**	SM 4500-S-2 D	454733		
60231848013	**MW-87-201611**	EPA 300.0	455175		
60231848014	**MW-89-201611**	EPA 300.0	455175		
60231848015	**TMW-11-201611**	EPA 300.0	455175		
60231848024	**TMW-10-201611**	EPA 300.0	455175		
60231848025	**ITMW-9-201611**	EPA 300.0	455175		
60231848013	**MW-87-201611**	EPA 353.2	454180		
60231848014	**MW-89-201611**	EPA 353.2	454180		
60231848015	**TMW-11-201611**	EPA 353.2	454180		
60231848024	**TMW-10-201611**	EPA 353.2	454180		
60231848025	**ITMW-9-201611**	EPA 353.2	454180		
60231848013	**MW-87-201611**	SM 5310C	454642		
60231848014	**MW-89-201611**	SM 5310C	454642		
60231848015	**TMW-11-201611**	SM 5310C	454961		
60231848024	**TMW-10-201611**	SM 5310C	454961		
60231848025	**ITMW-9-201611**	SM 5310C	454961		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
www.pacelabs.com

Sample Condition Upon Receipt

WO# : 60231848

60231848

Client Name: Environ

Courier: FedEx ☒ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☐ Client ☐ Other ☐

Tracking #: 8103 0090 9404 , 9404 Pace Shipping Label Used? Yes ☐ No ☐

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

Packing Material: Bubble Wrap ☐ Bubble Bags ☒ Foam ☐ None ☐ Other ☐

Thermometer Used: ~~T-266~~ (CF +0.7) / T-239 (CF -0.5) **Type of Ice:** (Wet) Blue None

Cooler Temperature (°C): **As-read** 20 0.9 **Corr. Factor** (CF +0.7) CF -0.5 **Corrected** 2.7 1.6

Date and initials of person examining contents: JB 11/9

Temperature should be above freezing to 6°C

Chain of Custody present:	☒Yes ☐No ☐N/A	
Chain of Custody relinquished:	☒Yes ☐No ☐N/A	
Samples arrived within holding time:	☒Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☐Yes ☒No ☐N/A	NO2 / NO3
Rush Turn Around Time requested:	☐Yes ☒No ☐N/A	
Sufficient volume:	☒Yes ☐No ☐N/A	
Correct containers used:	☒Yes ☐No ☐N/A	
Pace containers used:	☒Yes ☐No ☐N/A	
Containers intact:	☒Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☒N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☒N/A	
Sample labels match COC: Date / time / ID / analyses	☒Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: WT	☐Yes ☒No ☐N/A	
Containers requiring pH preservation in compliance? (HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: (VOA), Micro, O&G, KS TPH, OK-DRO)	☒Yes ☐No ☐N/A	
Cyanide water sample checks: ☒ N/A Lead acetate strip turns dark? (Record only) Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No ☐Yes ☐No	
Trip Blank present:	☒Yes ☐No ☐N/A	
Headspace in VOA vials (>6mm):	☐Yes ☒No ☐N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☒N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☒N/A	

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: Colleen Clyne Date: 11/11/2016

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 3

Section A Required Client Information:

Company:	Environ
Address:	7500 College Blvd., Ste. 925
	Overland Park, KS 66210
Email To:	wstonestreet@ramboll.com
Phone: 913-553-5926	Fax:
Requested Due Date/TAT:	

Section B Required Project Information:

Report To:	Wendy Stonestreet
Copy To:	Tammy Gleason
Purchase Order No.:	NA
Project Name:	Fort Smith, AR
Project Number:	

Section C Invoice Information:

Attention:	Tammy Gleason
Company Name:	Environ
Address:	250 Monroe Ave. NW Grand Rapids
Pace Quote Reference:	Michigan, 49503
Pace Project Manager:	Colleen Clyne
Pace Profile #:	7444, line 1

REGULATORY AGENCY

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

Site Location STATE: AR

Section D Required Client Information

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

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	8260 VOCs	Sulfide	TOC	Sulfate	Nitrate, nitrite, unpres	6010-Iron	Ferric iron calc. (send field Ferrous)	ascorbic acid		Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
																												60231848
1	MW-16OL-20160111	WT	G			11/8/16	1250		3				X						X								(3) DUPH		W1
2	MW-46R-20160111	WT	G			11/8/16	1350		3				X						X										W2
3	MW-18S-20160111	WT	G			11/8/16	1640		3				X						X										W3
4	MW-77-20160111	WT	G			11/8/16	0929		3				X						X						X		(3) OTHER	7day hold	W4
5	MW-78-20160111	WT	G			11/8/16	1137		3				X						X						X			7day hold	W5
6	MW-22-20160111	WT	G			11/8/16	1316		3				X						X								(3) DUPH		W6
7	MW-24-20160111	WT	G			11/8/16	1635		3				X						X						X		(3) OTHER	7day hold	W7
8	MW-17S-20160111	WT	G			11/8/16	1240		3				X						X								(3) DUPH		W8
9	Dup-07-20160111	WT	G			11/8/16	1035		3				3						X										W9
10	MW-57R-20160111	WT	G			11/8/16	1035		3				3						X										W10
11	MW-51OR-20160111	WT	G			11/8/16	0905		3				3						X										W11
12	MW-17D-20160111	WT	G			11/8/16	1455		3				3						X										W12

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Victoria Stegler RE	11/8/16	1800		11/9	0910	2.7	Y	Y	Y
							1.6	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Victoria Stegler

SIGNATURE of SAMPLER: Victoria Stegler

DATE Signed (MM/DD/YY): 11/8/16

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

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

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

CHAIN-OF-CUSTODY / Analytical Request Document

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

Pace Analytical
www.pacelabs.com

Section A Required Client Information:

Company:	Environ
Address:	7500 College Blvd., Ste. 925
	Overland Park, KS 66210
Email To:	wstonestreet@ramboll.com
Phone: 913-553-5926	Fax:
Requested Due Date/TAT:	

Section B Required Project Information:

Report To:	Wendy Stonestreet
Copy To:	Tammy Gleason
Purchase Order No.:	NA
Project Name:	Fort Smith, AR
Project Number:	

Section C Invoice Information:

Attention:	Tammy Gleason
Company Name:	Environ
Address:	250 Monroe Ave. NW Grand Rapids
Pace Quote Reference:	Michigan, 49503
Pace Project Manager:	Colleen Clyne
Pace Profile #:	7444, line 1

REGULATORY AGENCY

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

Site Location STATE: AR

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

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

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	8260 VOCs	Sulfide	TOC	Sulfate	Nitrate, nitrite, unpres	6010-Iron	Ferric Iron calc. (send field Ferrous)		Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-87-20161111 BP3U AG3S BP3Z BP3N	WT	G			11/8/16	1700		9	X	X	X	X	X				X	X	X	X	X	X		(3)D69A		013
2	MW-89-20161111	WT	G			11/8/16	1515		9																		014
3	TMW-11-20161111	WT	G			11/8/16	0927		9																		015
4	DUP-05-20161111	WT	G			11/8/16	1700		3				X						X								016
5	MW-190-20161111	WT	G			11/8/16	1515		3				X						X								017
6	MW-98-20161111	WT	G			11/8/16	1315		3				X						X								018
7	MW-191-20161111 MS/MSD	WT	G			11/8/16	1635		3				X						X								-
8	MW-191-20161111	WT	G			11/8/16	1635		3				X						X					(6)D69A			019
9	MW-97-20161111	WT	G			11/8/16	1125		3				X						X					(3)D69A			020
10	MW-96-20161111	WT	G			11/8/16	1015		3				X						X								021
11	MW-184-20161111	WT	G			11/8/16	0825		3				X						X								022
12	EB-02-20161111	WT	G			11/8/16	1700		3				X						X								023

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Victoria Stratton RE	11/8/16	1800		11/9	0910	2.7	Y	Y	Y
							1.6	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Victoria Stratton

SIGNATURE of SAMPLER: Victoria Stratton

DATE Signed (MM/DD/YY): 11/8/16

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

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

CHAIN-OF-CUSTODY / Analytical Request Document

Pace Analytical
www.pacelabs.com

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

Page: 3 of 3

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Environ	Report To:	Wendy Stonestreet	Attention:	Tammy Gleason
Address:	7500 College Blvd., Ste. 925	Copy To:	Tammy Gleason	Company Name:	Environ
	Overland Park, KS 66210			Address:	250 Monroe Ave. NW Grand Rapids
Email To:	wstonestreet@ramboll.com	Purchase Order No.:	NA	Pace Quote Reference:	Michigan, 49503
Phone:	913-553-5926 Fax:	Project Name:	Fort Smith, AR	Pace Project Manager:	Colleen Clyne
Requested Due Date/TAT:		Project Number:		Pace Profile #:	7444, line 1

REGULATORY AGENCY

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

Site Location STATE: AR

Requested Analysis Filtered (Y/N)

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

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

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	8260 VOCs	Sulfide	TOC	Sulfate	Nitrate, nitrite, unpres	6010-Iron	Ferric Iron calc. (send field Ferrous)					Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 60231848
1	~~FB~~ TMW-10-20116 11	WT	G			11/8/16	0917		9																		(3) DGAH 024
2	TMW-9-20116 11	WT	G			11/8/16	1600		9																		(6) DGAH 025
3MS	~~MS/MSD~~ TMW-9-20116 11 MS/MSD	WT	G			11/8/16	1600		3																		-
4	TB-1-20116 11	WT	G			11/8/16	—		2																		(2) DGAH TB 026
5	TB-3-20116 11	WT	G			11/8/16	—		2																		027
6																											
7																											
8																											
9																											
10																											
11																											
12																											

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	Victoria Sieglen RG	11/8/16	1850		11/9	0910	2.7	Y	Y	Y
							1.6	Y	Y	F

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Victoria Sieglen

SIGNATURE of SAMPLER: Victoria Sieglen DATE Signed (MM/DD/YY): 11/8/16

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

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

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

November 28, 2016

Tamara Gleason
Ramboll Environ
250 Monroe Ave. NW
Ste 400
Grand Rapids, MI 49503

RE: Project: FORT SMITH, AR
Pace Project No.: 60231873

Dear Tamara Gleason:
Enclosed are the analytical results for sample(s) received by the laboratory on November 09, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Colleen Clyne

Colleen Clyne
colleen.clyne@pacelabs.com
Project Manager

Enclosures

cc: Johanna Pavlowsky, Ramboll Environ

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

CERTIFICATIONS

Project: FORT SMITH, AR
Pace Project No.: 60231873

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219
WY STR Certification #: 2456.01
Arkansas Certification #: 15-016-0
Illinois Certification #: 003097
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407
Utah Certification #: KS00021
Kansas Field Laboratory Accreditation: # E-92587
Missouri Certification: 10070

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

SAMPLE SUMMARY

Project: FORT SMITH, AR
Pace Project No.: 60231873

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60231873001	**VP-12-201611**	Water	11/08/16 12:30	11/09/16 09:10
60231873002	**VP-10-201611**	Water	11/08/16 10:05	11/09/16 09:10
60231873003	**VP-07-201611**	Water	11/08/16 13:00	11/09/16 09:10
60231873004	**VP-08-201611**	Water	11/08/16 13:20	11/09/16 09:10
60231873005	**VP-06-201611**	Water	11/08/16 14:04	11/09/16 09:10
60231873006	**VP-05-201611**	Water	11/08/16 14:12	11/09/16 09:10

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

SAMPLE ANALYTE COUNT

Project: FORT SMITH, AR
Pace Project No.: 60231873

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60231873001	**VP-12-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231873002	**VP-10-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231873003	**VP-07-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231873004	**VP-08-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231873005	**VP-06-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231873006	**VP-05-201611**	EPA 5030B/8260	PGH	38	PASI-K

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231873

Method: **EPA 5030B/8260**
Description: 8260 MSV
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
6 samples were analyzed for EPA 5030B/8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: 454968

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

- LCS (Lab ID: 1863068)
  - 1,1,2,2-Tetrachloroethane
  - Bromoform

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 454968

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60231848025,60231925008

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1863069)
  - Trichloroethene
- MSD (Lab ID: 1863070)
  - Dibromochloromethane
  - Trichloroethene
  - cis-1,2-Dichloroethene

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231873

Method: **EPA 5030B/8260**
Description: 8260 MSV
Client: Ramboll Environ_AR
Date: November 28, 2016

QC Batch: 454968

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60231848025,60231925008

R1: RPD value was outside control limits.

- MSD (Lab ID: 1863070)
  - 1,1,1-Trichloroethane
  - 2-Butanone (MEK)
  - 4-Methyl-2-pentanone (MIBK)
  - Acetone
- MSD (Lab ID: 1863072)
  - 1,1,2,2-Tetrachloroethane

QC Batch: 455400

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231873

Sample: VP-12-201611 **Lab ID: 60231873001** Collected: 11/08/16 12:30 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	**2.7J**	ug/L	10.0	1.9	1		11/16/16 09:40	67-64-1	
Benzene	**0.13J**	ug/L	1.0	0.060	1		11/16/16 09:40	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 09:40	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 09:40	75-25-2	L3
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 09:40	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 09:40	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 09:40	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 09:40	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 09:40	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 09:40	75-00-3	
Chloroform	**0.23J**	ug/L	1.0	0.14	1		11/16/16 09:40	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 09:40	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 09:40	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 09:40	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 09:40	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 09:40	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/16/16 09:40	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 09:40	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 09:40	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 09:40	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 09:40	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 09:40	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 09:40	591-78-6	
Methylene chloride	**0.33J**	ug/L	1.0	0.15	1		11/16/16 09:40	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/16/16 09:40	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 09:40	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 09:40	79-34-5	L3
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 09:40	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/16/16 09:40	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 09:40	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 09:40	79-00-5	
Trichloroethene	**0.55J**	ug/L	1.0	0.17	1		11/16/16 09:40	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/16/16 09:40	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 09:40	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	99	%	77-130		1		11/16/16 09:40	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	81-127		1		11/16/16 09:40	17060-07-0	
Toluene-d8 (S)	93	%	80-120		1		11/16/16 09:40	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 09:40		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231873

Sample: VP-10-201611 **Lab ID: 60231873002** Collected: 11/08/16 10:05 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/16/16 13:04	67-64-1	
Benzene	**0.18J**	ug/L	1.0	0.060	1		11/16/16 13:04	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 13:04	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 13:04	75-25-2	L3
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 13:04	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 13:04	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 13:04	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 13:04	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 13:04	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 13:04	75-00-3	
Chloroform	**0.70J**	ug/L	1.0	0.14	1		11/16/16 13:04	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 13:04	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 13:04	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 13:04	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 13:04	107-06-2	
1,1-Dichloroethene	**1.6**	ug/L	1.0	0.20	1		11/16/16 13:04	75-35-4	
cis-1,2-Dichloroethene	**16.0**	ug/L	1.0	0.080	1		11/16/16 13:04	156-59-2	
trans-1,2-Dichloroethene	**0.27J**	ug/L	1.0	0.20	1		11/16/16 13:04	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 13:04	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 13:04	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 13:04	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 13:04	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 13:04	591-78-6	
Methylene chloride	**0.35J**	ug/L	1.0	0.15	1		11/16/16 13:04	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/16/16 13:04	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 13:04	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 13:04	79-34-5	L3
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 13:04	127-18-4	
Toluene	**0.42J**	ug/L	1.0	0.17	1		11/16/16 13:04	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 13:04	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 13:04	79-00-5	
Trichloroethene	**278**	ug/L	5.0	0.85	5		11/17/16 14:16	79-01-6	
Vinyl chloride	**0.39J**	ug/L	1.0	0.13	1		11/16/16 13:04	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 13:04	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	77-130		1		11/16/16 13:04	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	81-127		1		11/16/16 13:04	17060-07-0	
Toluene-d8 (S)	91	%	80-120		1		11/16/16 13:04	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 13:04		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231873

Sample: VP-07-201611 **Lab ID: 60231873003** Collected: 11/08/16 13:00 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	**85.8**	ug/L	10.0	1.9	1		11/16/16 09:55	67-64-1	
Benzene	**0.95J**	ug/L	1.0	0.060	1		11/16/16 09:55	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 09:55	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 09:55	75-25-2	L3
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 09:55	74-83-9	
2-Butanone (MEK)	**8.9J**	ug/L	10.0	0.59	1		11/16/16 09:55	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 09:55	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 09:55	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 09:55	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 09:55	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/16/16 09:55	67-66-3	
Chloromethane	**0.59J**	ug/L	1.0	0.080	1		11/16/16 09:55	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 09:55	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 09:55	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 09:55	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 09:55	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/16/16 09:55	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 09:55	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 09:55	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 09:55	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 09:55	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 09:55	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 09:55	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/16/16 09:55	75-09-2	
4-Methyl-2-pentanone (MIBK)	**2.0J**	ug/L	10.0	0.42	1		11/16/16 09:55	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 09:55	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 09:55	79-34-5	L3
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 09:55	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/16/16 09:55	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 09:55	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 09:55	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/16/16 09:55	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/16/16 09:55	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 09:55	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	102	%	77-130		1		11/16/16 09:55	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	81-127		1		11/16/16 09:55	17060-07-0	
Toluene-d8 (S)	84	%	80-120		1		11/16/16 09:55	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 09:55		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231873

Sample: VP-08-201611 **Lab ID: 60231873004** Collected: 11/08/16 13:20 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	**113**	ug/L	10.0	1.9	1		11/16/16 10:10	67-64-1	
Benzene	**0.55J**	ug/L	1.0	0.060	1		11/16/16 10:10	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 10:10	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 10:10	75-25-2	L3
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 10:10	74-83-9	
2-Butanone (MEK)	**20.4**	ug/L	10.0	0.59	1		11/16/16 10:10	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 10:10	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 10:10	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 10:10	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 10:10	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/16/16 10:10	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 10:10	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 10:10	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 10:10	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 10:10	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 10:10	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/16/16 10:10	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 10:10	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 10:10	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 10:10	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 10:10	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 10:10	100-41-4	
2-Hexanone	**3.7J**	ug/L	10.0	1.2	1		11/16/16 10:10	591-78-6	
Methylene chloride	**0.26J**	ug/L	1.0	0.15	1		11/16/16 10:10	75-09-2	
4-Methyl-2-pentanone (MIBK)	**1.3J**	ug/L	10.0	0.42	1		11/16/16 10:10	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 10:10	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 10:10	79-34-5	L3
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 10:10	127-18-4	
Toluene	**0.43J**	ug/L	1.0	0.17	1		11/16/16 10:10	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 10:10	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 10:10	79-00-5	
Trichloroethene	**2.4**	ug/L	1.0	0.17	1		11/16/16 10:10	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/16/16 10:10	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 10:10	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	77-130		1		11/16/16 10:10	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	81-127		1		11/16/16 10:10	17060-07-0	
Toluene-d8 (S)	92	%	80-120		1		11/16/16 10:10	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 10:10		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231873

Sample: VP-06-201611 **Lab ID: 60231873005** Collected: 11/08/16 14:04 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	**80.6**	ug/L	10.0	1.9	1		11/16/16 10:24	67-64-1	
Benzene	**1.8**	ug/L	1.0	0.060	1		11/16/16 10:24	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 10:24	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 10:24	75-25-2	L3
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 10:24	74-83-9	
2-Butanone (MEK)	**13.0**	ug/L	10.0	0.59	1		11/16/16 10:24	78-93-3	
Carbon disulfide	**2.7J**	ug/L	5.0	0.12	1		11/16/16 10:24	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 10:24	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 10:24	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 10:24	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/16/16 10:24	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 10:24	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 10:24	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 10:24	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 10:24	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 10:24	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/16/16 10:24	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 10:24	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 10:24	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 10:24	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 10:24	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 10:24	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 10:24	591-78-6	
Methylene chloride	**0.24J**	ug/L	1.0	0.15	1		11/16/16 10:24	75-09-2	
4-Methyl-2-pentanone (MIBK)	**1.2J**	ug/L	10.0	0.42	1		11/16/16 10:24	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 10:24	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 10:24	79-34-5	L3
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 10:24	127-18-4	
Toluene	**0.24J**	ug/L	1.0	0.17	1		11/16/16 10:24	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 10:24	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 10:24	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/16/16 10:24	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/16/16 10:24	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 10:24	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	77-130		1		11/16/16 10:24	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	81-127		1		11/16/16 10:24	17060-07-0	
Toluene-d8 (S)	89	%	80-120		1		11/16/16 10:24	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 10:24		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231873

Sample: VP-05-201611 **Lab ID: 60231873006** Collected: 11/08/16 14:12 Received: 11/09/16 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	**112**	ug/L	10.0	1.9	1		11/16/16 10:39	67-64-1	
Benzene	**1.5**	ug/L	1.0	0.060	1		11/16/16 10:39	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 10:39	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 10:39	75-25-2	L3
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 10:39	74-83-9	
2-Butanone (MEK)	**24.6**	ug/L	10.0	0.59	1		11/16/16 10:39	78-93-3	
Carbon disulfide	**2.1J**	ug/L	5.0	0.12	1		11/16/16 10:39	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 10:39	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 10:39	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 10:39	75-00-3	
Chloroform	**0.59J**	ug/L	1.0	0.14	1		11/16/16 10:39	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 10:39	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 10:39	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 10:39	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 10:39	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 10:39	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/16/16 10:39	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 10:39	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 10:39	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 10:39	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 10:39	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 10:39	100-41-4	
2-Hexanone	**9.5J**	ug/L	10.0	1.2	1		11/16/16 10:39	591-78-6	
Methylene chloride	**0.71J**	ug/L	1.0	0.15	1		11/16/16 10:39	75-09-2	
4-Methyl-2-pentanone (MIBK)	**2.6J**	ug/L	10.0	0.42	1		11/16/16 10:39	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 10:39	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 10:39	79-34-5	L3
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 10:39	127-18-4	
Toluene	**0.47J**	ug/L	1.0	0.17	1		11/16/16 10:39	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 10:39	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 10:39	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/16/16 10:39	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/16/16 10:39	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 10:39	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	102	%	77-130		1		11/16/16 10:39	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	81-127		1		11/16/16 10:39	17060-07-0	
Toluene-d8 (S)	96	%	80-120		1		11/16/16 10:39	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 10:39		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231873

QC Batch: 454968 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60231873001, 60231873002, 60231873003, 60231873004, 60231873005, 60231873006

METHOD BLANK: 1863067 Matrix: Water
Associated Lab Samples: 60231873001, 60231873002, 60231873003, 60231873004, 60231873005, 60231873006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	0.11	11/16/16 08:42	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.15	11/16/16 08:42	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.20	11/16/16 08:42	
1,1-Dichloroethane	ug/L	ND	1.0	0.050	11/16/16 08:42	
1,1-Dichloroethene	ug/L	ND	1.0	0.20	11/16/16 08:42	
1,2-Dichloroethane	ug/L	ND	1.0	0.12	11/16/16 08:42	
1,2-Dichloropropane	ug/L	ND	1.0	0.16	11/16/16 08:42	
2-Butanone (MEK)	ug/L	ND	10.0	0.59	11/16/16 08:42	
2-Hexanone	ug/L	ND	10.0	1.2	11/16/16 08:42	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	0.42	11/16/16 08:42	
Acetone	ug/L	ND	10.0	1.9	11/16/16 08:42	
Benzene	ug/L	ND	1.0	0.060	11/16/16 08:42	
Bromodichloromethane	ug/L	ND	1.0	0.19	11/16/16 08:42	
Bromoform	ug/L	ND	1.0	0.070	11/16/16 08:42	
Bromomethane	ug/L	ND	5.0	0.16	11/16/16 08:42	
Carbon disulfide	ug/L	ND	5.0	0.12	11/16/16 08:42	
Carbon tetrachloride	ug/L	ND	1.0	0.18	11/16/16 08:42	
Chlorobenzene	ug/L	ND	1.0	0.21	11/16/16 08:42	
Chloroethane	ug/L	ND	1.0	0.15	11/16/16 08:42	
Chloroform	ug/L	ND	1.0	0.14	11/16/16 08:42	
Chloromethane	ug/L	ND	1.0	0.080	11/16/16 08:42	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.080	11/16/16 08:42	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.14	11/16/16 08:42	
Dibromochloromethane	ug/L	ND	1.0	0.21	11/16/16 08:42	
Ethylbenzene	ug/L	ND	1.0	0.18	11/16/16 08:42	
Methylene chloride	ug/L	ND	1.0	0.15	11/16/16 08:42	
Styrene	ug/L	ND	1.0	0.12	11/16/16 08:42	
Tetrachloroethene	ug/L	ND	1.0	0.10	11/16/16 08:42	
Toluene	ug/L	ND	1.0	0.17	11/16/16 08:42	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.20	11/16/16 08:42	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.12	11/16/16 08:42	
Trichloroethene	ug/L	ND	1.0	0.17	11/16/16 08:42	
Vinyl chloride	ug/L	ND	1.0	0.13	11/16/16 08:42	
Xylene (Total)	ug/L	ND	3.0	0.42	11/16/16 08:42	
1,2-Dichloroethane-d4 (S)	%	99	81-127		11/16/16 08:42	
4-Bromofluorobenzene (S)	%	97	77-130		11/16/16 08:42	
Toluene-d8 (S)	%	91	80-120		11/16/16 08:42	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231873

LABORATORY CONTROL SAMPLE: 1863068

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	20.0	100	81-116	
1,1,2,2-Tetrachloroethane	ug/L	20	24.6	123	72-117	L0
1,1,2-Trichloroethane	ug/L	20	21.7	108	79-108	
1,1-Dichloroethane	ug/L	20	18.7	94	83-117	
1,1-Dichloroethene	ug/L	20	18.0	90	74-114	
1,2-Dichloroethane	ug/L	20	20.6	103	72-116	
1,2-Dichloropropane	ug/L	20	22.2	111	80-120	
2-Butanone (MEK)	ug/L	100	92.7	93	67-129	
2-Hexanone	ug/L	100	102	102	70-128	
4-Methyl-2-pentanone (MIBK)	ug/L	100	101	101	80-120	
Acetone	ug/L	100	87.1	87	56-142	
Benzene	ug/L	20	21.6	108	79-116	
Bromodichloromethane	ug/L	20	21.3	107	80-120	
Bromoform	ug/L	20	23.3	116	73-114	L0
Bromomethane	ug/L	20	18.7	94	49-153	
Carbon disulfide	ug/L	20	18.1	90	82-121	
Carbon tetrachloride	ug/L	20	19.2	96	80-116	
Chlorobenzene	ug/L	20	21.0	105	80-120	
Chloroethane	ug/L	20	18.5	92	67-124	
Chloroform	ug/L	20	19.2	96	79-120	
Chloromethane	ug/L	20	14.7	74	10-192	
cis-1,2-Dichloroethene	ug/L	20	18.5	93	80-120	
cis-1,3-Dichloropropene	ug/L	20	21.2	106	80-120	
Dibromochloromethane	ug/L	20	22.8	114	80-120	
Ethylbenzene	ug/L	20	21.3	107	80-120	
Methylene chloride	ug/L	20	16.4	82	80-120	
Styrene	ug/L	20	21.6	108	80-120	
Tetrachloroethene	ug/L	20	21.4	107	80-120	
Toluene	ug/L	20	21.0	105	80-120	
trans-1,2-Dichloroethene	ug/L	20	18.5	93	78-108	
trans-1,3-Dichloropropene	ug/L	20	21.7	109	85-120	
Trichloroethene	ug/L	20	20.5	102	76-114	
Vinyl chloride	ug/L	20	16.6	83	69-129	
Xylene (Total)	ug/L	60	63.0	105	80-120	
1,2-Dichloroethane-d4 (S)	%			97	81-127	
4-Bromofluorobenzene (S)	%			108	77-130	
Toluene-d8 (S)	%			96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1863069 1863070

Parameter	Units	60231848025 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	21.4	24.7	107	123	70-135	14	12	R1
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	19.4	21.0	97	105	54-136	8	15	
1,1,2-Trichloroethane	ug/L	ND	20	20	20.3	20.2	101	101	70-113	0	15	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231873

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1863069 1863070

Parameter	Units	60231848025 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethane	ug/L	ND	20	20	19.6	21.8	98	109	80-122	11	13	
1,1-Dichloroethene	ug/L	0.48J	20	20	20.6	22.3	101	109	73-118	8	14	
1,2-Dichloroethane	ug/L	ND	20	20	20.0	21.4	100	107	54-137	7	41	
1,2-Dichloropropane	ug/L	ND	20	20	20.8	21.2	104	106	77-116	2	12	
2-Butanone (MEK)	ug/L	ND	100	100	77.2	96.9	77	97	30-127	23	18	R1
2-Hexanone	ug/L	ND	100	100	91.5	99.2	91	99	44-124	8	18	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	100	81.2	95.9	81	96	70-124	17	15	R1
Acetone	ug/L	ND	100	100	72.2	94.1	70	92	10-132	26	20	R1
Benzene	ug/L	ND	20	20	22.4	22.2	112	111	37-151	1	40	
Bromodichloromethane	ug/L	ND	20	20	20.7	21.9	103	110	76-118	6	11	
Bromoform	ug/L	ND	20	20	20.0	20.4	100	102	64-113	2	15	
Bromomethane	ug/L	ND	20	20	15.0	19.3	75	97	41-154	25	43	
Carbon disulfide	ug/L	ND	20	20	19.3	21.5	96	108	80-139	11	17	
Carbon tetrachloride	ug/L	ND	20	20	20.5	22.5	103	112	75-127	9	13	
Chlorobenzene	ug/L	ND	20	20	21.0	20.7	105	103	79-113	2	13	
Chloroethane	ug/L	ND	20	20	20.1	21.7	101	109	53-154	8	20	
Chloroform	ug/L	0.36J	20	20	19.8	22.1	97	109	74-115	11	12	
Chloromethane	ug/L	ND	20	20	14.6	19.3	73	97	33-169	28	72	
cis-1,2-Dichloroethene	ug/L	73.0	20	20	86.0	101	65	140	58-139	16	40	M1
cis-1,3-Dichloropropene	ug/L	ND	20	20	17.1	18.8	85	94	70-120	10	14	
Dibromochloromethane	ug/L	ND	20	20	20.7	22.9	103	115	77-114	10	13	M1
Ethylbenzene	ug/L	ND	20	20	22.0	21.0	110	105	29-151	4	45	
Methylene chloride	ug/L	0.24J	20	20	16.7	19.0	82	94	76-120	13	13	
Styrene	ug/L	ND	20	20	19.8	19.5	99	97	66-127	2	15	
Tetrachloroethene	ug/L	ND	20	20	21.6	22.7	108	113	77-118	5	14	
Toluene	ug/L	ND	20	20	20.2	20.3	101	102	37-147	0	43	
trans-1,2-Dichloroethene	ug/L	0.88J	20	20	20.2	22.3	96	107	69-125	10	16	
trans-1,3-Dichloropropene	ug/L	ND	20	20	18.2	18.5	91	93	71-118	2	13	
Trichloroethene	ug/L	249	20	20	277	287	140	188	71-116	3	14	M1
Vinyl chloride	ug/L	0.17J	20	20	17.9	20.9	89	103	65-142	15	22	
Xylene (Total)	ug/L	ND	60	60	65.4	62.7	109	104	27-156	4	46	
1,2-Dichloroethane-d4 (S)	%						96	104	81-127			
4-Bromofluorobenzene (S)	%						97	101	77-130			
Toluene-d8 (S)	%						95	92	80-120			
Preservation pH		1.0			1.0	1.0				0		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1863071 1863072

Parameter	Units	60231925008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	20.7	21.9	104	109	70-135	5	12	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	18.9	22.5	95	113	54-136	17	15	R1
1,1,2-Trichloroethane	ug/L	ND	20	20	20.7	20.5	103	102	70-113	1	15	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231873

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1863071 1863072

Parameter	Units	60231925008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethane	ug/L	ND	20	20	19.4	20.3	97	101	80-122	5	13	
1,1-Dichloroethene	ug/L	ND	20	20	19.3	21.4	97	107	73-118	10	14	
1,2-Dichloroethane	ug/L	ND	20	20	19.2	20.3	96	102	54-137	6	41	
1,2-Dichloropropane	ug/L	ND	20	20	19.3	20.6	96	103	77-116	7	12	
2-Butanone (MEK)	ug/L	ND	100	100	77.0	88.9	77	89	30-127	14	18	
2-Hexanone	ug/L	ND	100	100	89.5	93.9	90	94	44-124	5	18	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	100	78.4	90.2	78	90	70-124	14	15	
Acetone	ug/L	2.1J	100	100	78.9	84.2	77	82	10-132	6	20	
Benzene	ug/L	ND	20	20	22.0	21.8	110	109	37-151	1	40	
Bromodichloromethane	ug/L	ND	20	20	18.4	20.5	92	102	76-118	11	11	
Bromoform	ug/L	ND	20	20	20.9	21.8	104	109	64-113	4	15	
Bromomethane	ug/L	ND	20	20	17.5	19.4	87	97	41-154	10	43	
Carbon disulfide	ug/L	ND	20	20	19.6	20.2	98	101	80-139	3	17	
Carbon tetrachloride	ug/L	ND	20	20	20.5	22.1	102	110	75-127	8	13	
Chlorobenzene	ug/L	ND	20	20	21.1	21.2	106	106	79-113	0	13	
Chloroethane	ug/L	ND	20	20	21.0	20.6	105	103	53-154	2	20	
Chloroform	ug/L	ND	20	20	19.1	19.7	95	99	74-115	3	12	
Chloromethane	ug/L	ND	20	20	21.5	16.3	108	81	33-169	28	72	
cis-1,2-Dichloroethene	ug/L	ND	20	20	18.5	20.1	93	100	58-139	8	40	
cis-1,3-Dichloropropene	ug/L	ND	20	20	16.3	18.6	82	93	70-120	13	14	
Dibromochloromethane	ug/L	ND	20	20	21.3	21.3	106	107	77-114	0	13	
Ethylbenzene	ug/L	ND	20	20	22.5	21.8	113	109	29-151	3	45	
Methylene chloride	ug/L	ND	20	20	18.0	18.4	90	92	76-120	2	13	
Styrene	ug/L	ND	20	20	21.7	21.6	109	108	66-127	0	15	
Tetrachloroethene	ug/L	ND	20	20	23.0	21.4	115	107	77-118	7	14	
Toluene	ug/L	ND	20	20	20.4	20.2	102	101	37-147	1	43	
trans-1,2-Dichloroethene	ug/L	ND	20	20	18.9	20.3	94	101	69-125	7	16	
trans-1,3-Dichloropropene	ug/L	ND	20	20	18.2	18.7	91	93	71-118	2	13	
Trichloroethene	ug/L	ND	20	20	22.6	21.8	113	109	71-116	3	14	
Vinyl chloride	ug/L	ND	20	20	19.8	19.8	99	99	65-142	0	22	
Xylene (Total)	ug/L	ND	60	60	66.1	69.5	110	116	27-156	5	46	
1,2-Dichloroethane-d4 (S)	%						94	98	81-127			
4-Bromofluorobenzene (S)	%						99	109	77-130			
Toluene-d8 (S)	%						95	94	80-120			
Preservation pH		1.0			1.0	1.0				0		

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231873

QC Batch: 455400 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60231873002

METHOD BLANK: 1864631 Matrix: Water
Associated Lab Samples: 60231873002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Trichloroethene	ug/L	ND	1.0	0.17	11/17/16 09:25	
1,2-Dichloroethane-d4 (S)	%	98	81-127		11/17/16 09:25	
4-Bromofluorobenzene (S)	%	103	77-130		11/17/16 09:25	
Toluene-d8 (S)	%	88	80-120		11/17/16 09:25	

LABORATORY CONTROL SAMPLE: 1864633

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Trichloroethene	ug/L	20	20.6	103	76-114	
1,2-Dichloroethane-d4 (S)	%			104	81-127	
4-Bromofluorobenzene (S)	%			103	77-130	
Toluene-d8 (S)	%			85	80-120	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALIFIERS

Project: FORT SMITH, AR
Pace Project No.: 60231873

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-K	Pace Analytical Services - Kansas City

BATCH QUALIFIERS

Batch: 455400

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

ANALYTE QUALIFIERS

L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L3	Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
R1	RPD value was outside control limits.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: FORT SMITH, AR
Pace Project No.: 60231873

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60231873001	**VP-12-201611**	EPA 5030B/8260	454968		
60231873002	**VP-10-201611**	EPA 5030B/8260	454968		
60231873002	**VP-10-201611**	EPA 5030B/8260	455400		
60231873003	**VP-07-201611**	EPA 5030B/8260	454968		
60231873004	**VP-08-201611**	EPA 5030B/8260	454968		
60231873005	**VP-06-201611**	EPA 5030B/8260	454968		
60231873006	**VP-05-201611**	EPA 5030B/8260	454968		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
www.pacelabs.com

Sample Condition Upon Receipt

WO# : 60231873

60231873

Client Name: Environ

Courier: FedEx ☒ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☐ Client ☐ Other ☐

Tracking #: 8103 0090 9404, 9404 Pace Shipping Label Used? Yes ☐ No ☐

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

Packing Material: Bubble Wrap ☐ Bubble Bags ☒ Foam ☐ None ☐ Other ☐

Thermometer Used: (CF +0.7) T-266 / (CF -0.5) T-239 **Type of Ice:** (Wet) Blue None

Cooler Temperature (°C): **As-read** 20 0.9 **Corr. Factor** (CF +0.7) (CF -0.5) **Corrected** 27 1.6

Date and initials of person examining contents: 11/9 JB

Temperature should be above freezing to 6°C

Chain of Custody present:	☒Yes ☐No ☐N/A	
Chain of Custody relinquished:	☒Yes ☐No ☐N/A	
Samples arrived within holding time:	☒Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☐Yes ☒No ☐N/A	
Rush Turn Around Time requested:	☐Yes ☒No ☐N/A	
Sufficient volume:	☒Yes ☐No ☐N/A	
Correct containers used:	☒Yes ☐No ☐N/A	
Pace containers used:	☒Yes ☐No ☐N/A	
Containers intact:	☒Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☒N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☒N/A	
Sample labels match COC: Date / time / ID / analyses	☒Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: WT	☐Yes ☒No ☐N/A	
Containers requiring pH preservation in compliance? (HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: (VOA) Micro, O&G, KS TPH, OK-DRO)	☐Yes ☐No ☒N/A	
Cyanide water sample checks: ☒ N/A Lead acetate strip turns dark? (Record only) Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No ☐Yes ☐No	
Trip Blank present:	☐Yes ☒No ☐N/A	
Headspace in VOA vials (>6mm):	☐Yes ☒No ☐N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☒N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☒N/A	

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: Colleen Clayton Date: 11/11/2016

CHAIN-OF-CUSTODY / Analytical Request Document

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

Pace Analytical
www.pacelabs.com

Page: 1 of 1

Section A — **Required** Client Information:

Company:	Environ
Address:	7500 College Blvd., Ste. 925
	Overland Park, KS 66210
Email To:	wstonestreet@ramboll.com
Phone: 913-553-5926	Fax:
Requested Due Date/TAT:	Standard

Section B — **Required** Project Information:

Report To:	Wendy Stonestreet
Copy To:	Tammy Gleason
Purchase Order No.:	NA
Project Name:	Fort Smith, AR
Project Number:	

Section C — Invoice Information:

Attention:	Tammy Gleason
Company Name:	Environ
Address:	250 Monroe Ave. NW Grand Rapids
Pace Quote Reference:	Michigan, 49503
Pace Project Manager:	Colleen Clyne
Pace Profile #:	7444, line 1

REGULATORY AGENCY

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

Site Location STATE: AR

Section D — **Required** Client Information

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

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N: N	8260 VOCs	Sulfide	TOC	Sulfate	Nitrate, nitrite, unpres	6010-Iron	Ferric Iron calc. (send field Ferrous)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	VP-12-201611	WT	G	11/8/16	1230	—	—	-	3				X					X							N	60231873 (3) D611 a1
2	VP-10-201611	WT	G	11/8/16	1005	—	—	-	3				X					X								a2
3	VP-07-201611	WT	G	11/8/16	1300	—	—	-	3				X					X								a3
4	VP-08-201611	WT	G	11/8/16	1320	—	—	-	3				X					X								a4
5	VP-06-201611	WT	G	11/8/16	1404	—	—	-	3				X					X								a5
6	VP-05-201611	WT	G	11/8/16	1412	—	—	-	3				X					X							↓	a6
7																										
8																										
9																										
10																										
11																										
12																										

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	[signature] Ramboll Environ	11/8/16	1800	[signature] Pace	11/9	0910	2.7	Y	Y	Y
							1.6	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Nick Zurmeller

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 11/08/16

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

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

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

November 28, 2016

Tamara Gleason
Ramboll Environ
250 Monroe Ave. NW
Ste 400
Grand Rapids, MI 49503

RE: Project: FORT SMITH, AR
Pace Project No.: 60231925

Dear Tamara Gleason:
Enclosed are the analytical results for sample(s) received by the laboratory on November 10, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Colleen Clyne
colleen.clyne@pacelabs.com
Project Manager

Enclosures

cc: Johanna Pavlowsky, Ramboll Environ

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

CERTIFICATIONS

Project: FORT SMITH, AR
Pace Project No.: 60231925

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219
WY STR Certification #: 2456.01
Arkansas Certification #: 15-016-0
Illinois Certification #: 003097
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407
Utah Certification #: KS00021
Kansas Field Laboratory Accreditation: # E-92587
Missouri Certification: 10070

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

SAMPLE SUMMARY

Project: FORT SMITH, AR
Pace Project No.: 60231925

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60231925001	MW-28-201611	Water	11/09/16 10:15	11/10/16 08:32
60231925002	MW-93-201611	Water	11/09/16 15:30	11/10/16 08:32
60231925003	DUP-01-201611	Water	11/09/16 11:26	11/10/16 08:32
60231925004	IW-73-201611	Water	11/09/16 11:26	11/10/16 08:32
60231925005	MW-95-201611	Water	11/09/16 14:05	11/10/16 08:32
60231925006	EB-01-201611	Water	11/09/16 16:20	11/10/16 08:32
60231925007	ITMW-16-201611	Water	11/09/16 16:16	11/10/16 08:32
60231925008	MW-27-201611	Water	11/09/16 14:40	11/10/16 08:32
60231925009	MW-82-201611	Water	11/09/16 09:36	11/10/16 08:32
60231925010	ITMW-21-201611	Water	11/09/16 16:32	11/10/16 08:32
60231925011	ITMW-18-201611	Water	11/09/16 13:05	11/10/16 08:32
60231925012	ITMW-19-201611	Water	11/09/16 15:10	11/10/16 08:32
60231925013	MW-29-201611	Water	11/09/16 09:20	11/10/16 08:32
60231925014	MW-26-201611	Water	11/09/16 13:06	11/10/16 08:32
60231925015	ITMW-20-201611	Water	11/09/16 11:05	11/10/16 08:32
60231925016	ITMW-2-201611	Water	11/09/16 11:25	11/10/16 08:32
60231925017	MW-183-201611	Water	11/09/16 08:20	11/10/16 08:32
60231925018	MW-192-201611	Water	11/09/16 09:35	11/10/16 08:32
60231925019	MW-84-201611	Water	11/09/16 12:24	11/10/16 08:32
60231925020	TB-4-201611	Water	11/09/16 08:20	11/10/16 08:32
60231925021	TB-2-201611	Water	11/09/16 08:20	11/10/16 08:32
60231925022	MW-83-201611	Water	11/09/16 14:22	11/10/16 08:32
60231925023	MW-86-201611	Water	11/09/16 15:50	11/10/16 08:32
60231925024	MW-25-201611	Water	11/09/16 13:40	11/10/16 08:32
60231925025	RW-69-201611	Water	11/09/16 10:25	11/10/16 08:32
60231925026	MW-195-201611	Water	11/09/16 09:45	11/10/16 08:32
60231925027	DUP-02-201611	Water	11/09/16 15:25	11/10/16 08:32
60231925028	MW-182-201611	Water	11/09/16 15:25	11/10/16 08:32
60231925029	MW-188-201611	Water	11/09/16 14:05	11/10/16 08:32
60231925030	MW-187-201611	Water	11/09/16 12:45	11/10/16 08:32
60231925031	MW-196-201611	Water	11/09/16 11:15	11/10/16 08:32
60231925032	EB-05-201611	Water	11/09/16 16:50	11/10/16 08:32
60231925033	EB-06-201611	Water	11/09/16 17:25	11/10/16 08:32

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

SAMPLE ANALYTE COUNT

Project: FORT SMITH, AR
Pace Project No.: 60231925

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60231925001	**MW-28-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231925002	**MW-93-201611**	EPA 5030B/8260	EAG, PGH	38	PASI-K
60231925003	**DUP-01-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231925004	**IW-73-201611**	EPA 6010	NDJ	1	PASI-K
		EPA 5030B/8260	PGH	38	PASI-K
		SM 4500-S-2 D	HMM	1	PASI-K
		EPA 300.0	OL	1	PASI-K
		EPA 353.2	LDB	3	PASI-K
		SM 5310C	JMC1	1	PASI-K
60231925005	**MW-95-201611**	EPA 6010	NDJ	1	PASI-K
		EPA 5030B/8260	EAG, PGH	38	PASI-K
		SM 4500-S-2 D	HMM	1	PASI-K
		EPA 300.0	OL	1	PASI-K
		EPA 353.2	LDB	3	PASI-K
		SM 5310C	JMC1	1	PASI-K
60231925006	**EB-01-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231925007	**ITMW-16-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231925008	**MW-27-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231925009	**MW-82-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231925010	**ITMW-21-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231925011	**ITMW-18-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231925012	**ITMW-19-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231925013	**MW-29-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231925014	**MW-26-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231925015	**ITMW-20-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231925016	**ITMW-2-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231925017	**MW-183-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231925018	**MW-192-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231925019	**MW-84-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231925020	**TB-4-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231925021	**TB-2-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231925022	**MW-83-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231925023	**MW-86-201611**	EPA 6010	NDJ	1	PASI-K
		EPA 5030B/8260	EAG, PGH	38	PASI-K
		SM 4500-S-2 D	HMM	1	PASI-K
		EPA 300.0	OL	1	PASI-K
		EPA 353.2	LDB	3	PASI-K

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

SAMPLE ANALYTE COUNT

Project: FORT SMITH, AR
Pace Project No.: 60231925

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 5310C	JMC1	1	PASI-K
60231925024	**MW-25-201611**	EPA 6010	NDJ	1	PASI-K
		EPA 5030B/8260	EAG, PGH	38	PASI-K
		SM 4500-S-2 D	HMM	1	PASI-K
		EPA 300.0	OL	1	PASI-K
		EPA 353.2	LDB	3	PASI-K
		SM 5310C	JMC1	1	PASI-K
60231925025	**RW-69-201611**	EPA 6010	NDJ	1	PASI-K
		EPA 5030B/8260	PGH	38	PASI-K
		SM 4500-S-2 D	HMM	1	PASI-K
		EPA 300.0	OL	1	PASI-K
		EPA 353.2	LDB	3	PASI-K
		SM 5310C	JMC1	1	PASI-K
60231925026	**MW-195-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231925027	**DUP-02-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231925028	**MW-182-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231925029	**MW-188-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231925030	**MW-187-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231925031	**MW-196-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231925032	**EB-05-201611**	EPA 5030B/8260	PGH	38	PASI-K
60231925033	**EB-06-201611**	EPA 5030B/8260	PGH	38	PASI-K

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231925

Method: **EPA 6010**
Description: 6010 MET ICP
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
5 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231925

Method: **EPA 5030B/8260**
Description: 8260 MSV
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
33 samples were analyzed for EPA 5030B/8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

QC Batch: 456164

CC: The continuing calibration for this compound is outside of method control limits. The result is estimated.

- MW-86-201611 (Lab ID: 60231925023)
  - 1,1-Dichloroethene
- MW-93-201611 (Lab ID: 60231925002)
  - 1,1-Dichloroethene
- MW-95-201611 (Lab ID: 60231925005)
  - 1,1-Dichloroethene

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

QC Batch: 456164

B: Analyte was detected in the associated method blank.

- BLANK for HBN 456164 [MSV/7943 (Lab ID: 1867763)
  - Methylene chloride

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: 454968

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

- LCS (Lab ID: 1863068)
  - 1,1,2,2-Tetrachloroethane
  - Bromoform

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231925

Method: **EPA 5030B/8260**
Description: 8260 MSV
Client: Ramboll Environ_AR
Date: November 28, 2016

QC Batch: 454974

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
- LCS (Lab ID: 1863097)
  - 1,1,2-Trichloroethane

QC Batch: 455032

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
- LCS (Lab ID: 1863376)
  - Bromomethane

QC Batch: 455400

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
- LCS (Lab ID: 1864633)
  - 1,1,1-Trichloroethane

QC Batch: 456164

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
- LCS (Lab ID: 1867764)
  - Vinyl chloride

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 454968

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60231848025,60231925008

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- MS (Lab ID: 1863069)
  - Trichloroethene
- MSD (Lab ID: 1863070)
  - Dibromochloromethane
  - Trichloroethene
  - cis-1,2-Dichloroethene

R1: RPD value was outside control limits.
- MSD (Lab ID: 1863070)
  - 1,1,1-Trichloroethane
  - 2-Butanone (MEK)
  - 4-Methyl-2-pentanone (MIBK)
  - Acetone
- MSD (Lab ID: 1863072)
  - 1,1,2,2-Tetrachloroethane

QC Batch: 454974

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

QC Batch: 455032

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231925

Method: **EPA 5030B/8260**
Description: 8260 MSV
Client: Ramboll Environ_AR
Date: November 28, 2016

QC Batch: 455400

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

QC Batch: 456164

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231925

Method: **SM 4500-S-2 D**
Description: 4500S2D Sulfide, Total
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
5 samples were analyzed for SM 4500-S-2 D. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231925

Method: **EPA 300.0**
Description: 300.0 IC Anions 28 Days
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
5 samples were analyzed for EPA 300.0. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 455803

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60231954001,60231954002

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MSD (Lab ID: 1866755)
  - Sulfate

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231925

Method: **EPA 353.2**
Description: 353.2 Nitrogen, NO2/NO3 unpres
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
5 samples were analyzed for EPA 353.2. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 454329

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60231925024,60231927001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1860457)
  - Nitrogen, Nitrite

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60231925

Method: **SM 5310C**
Description: 5310C TOC
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
5 samples were analyzed for SM 5310C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

QC Batch: 454961

B: Analyte was detected in the associated method blank.
- BLANK for HBN 454961 [WETA/424 (Lab ID: 1863050)
  - Total Organic Carbon

QC Batch: 455739

B: Analyte was detected in the associated method blank.
- BLANK for HBN 455739 [WETA/424 (Lab ID: 1866224)
  - Total Organic Carbon

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231925

Sample: MW-28-201611 **Lab ID: 60231925001** Collected: 11/09/16 10:15 Received: 11/10/16 08:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	**2.9J**	ug/L	10.0	1.9	1		11/16/16 10:53	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/16/16 10:53	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 10:53	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 10:53	75-25-2	L3
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 10:53	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 10:53	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 10:53	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 10:53	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 10:53	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 10:53	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/16/16 10:53	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 10:53	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 10:53	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 10:53	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 10:53	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 10:53	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/16/16 10:53	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 10:53	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 10:53	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 10:53	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 10:53	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 10:53	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 10:53	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/16/16 10:53	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/16/16 10:53	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 10:53	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 10:53	79-34-5	L3
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 10:53	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/16/16 10:53	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 10:53	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 10:53	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/16/16 10:53	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/16/16 10:53	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 10:53	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	77-130		1		11/16/16 10:53	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	81-127		1		11/16/16 10:53	17060-07-0	
Toluene-d8 (S)	96	%	80-120		1		11/16/16 10:53	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 10:53		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231925

Sample: MW-93-201611 **Lab ID: 60231925002** Collected: 11/09/16 15:30 Received: 11/10/16 08:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/22/16 20:12	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/22/16 20:12	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/22/16 20:12	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/22/16 20:12	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/22/16 20:12	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/22/16 20:12	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/22/16 20:12	75-15-0	
Carbon tetrachloride	**0.24J**	ug/L	1.0	0.18	1		11/22/16 20:12	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/22/16 20:12	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/22/16 20:12	75-00-3	
Chloroform	**3.6**	ug/L	1.0	0.14	1		11/22/16 20:12	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/22/16 20:12	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/22/16 20:12	124-48-1	
1,1-Dichloroethane	**0.25J**	ug/L	1.0	0.050	1		11/22/16 20:12	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/22/16 20:12	107-06-2	
1,1-Dichloroethene	**16.3**	ug/L	1.0	0.20	1		11/22/16 20:12	75-35-4	CC
cis-1,2-Dichloroethene	**98.8**	ug/L	1.0	0.080	1		11/22/16 20:12	156-59-2	
trans-1,2-Dichloroethene	**2.1**	ug/L	1.0	0.20	1		11/22/16 20:12	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/22/16 20:12	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/22/16 20:12	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/22/16 20:12	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/22/16 20:12	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/22/16 20:12	591-78-6	
Methylene chloride	**1.5**	ug/L	1.0	0.15	1		11/22/16 20:12	75-09-2	B
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/22/16 20:12	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/22/16 20:12	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/22/16 20:12	79-34-5	
Tetrachloroethene	**4.2**	ug/L	1.0	0.10	1		11/22/16 20:12	127-18-4	
Toluene	**0.30J**	ug/L	1.0	0.17	1		11/22/16 20:12	108-88-3	
1,1,1-Trichloroethane	**0.18J**	ug/L	1.0	0.11	1		11/22/16 20:12	71-55-6	
1,1,2-Trichloroethane	**0.97J**	ug/L	1.0	0.20	1		11/22/16 20:12	79-00-5	
Trichloroethene	**18300**	ug/L	200	34.0	200		11/16/16 13:18	79-01-6	
Vinyl chloride	**0.93J**	ug/L	1.0	0.13	1		11/22/16 20:12	75-01-4	L1
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/22/16 20:12	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	106	%	77-130		1		11/22/16 20:12	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	81-127		1		11/22/16 20:12	17060-07-0	
Toluene-d8 (S)	95	%	80-120		1		11/22/16 20:12	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/22/16 20:12		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231925

Sample: DUP-01-201611 **Lab ID: 60231925003** Collected: 11/09/16 11:26 Received: 11/10/16 08:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/17/16 13:03	67-64-1	
Benzene	**0.12J**	ug/L	1.0	0.060	1		11/17/16 13:03	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/17/16 13:03	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/17/16 13:03	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/17/16 13:03	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/17/16 13:03	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/17/16 13:03	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/17/16 13:03	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/17/16 13:03	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/17/16 13:03	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/17/16 13:03	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/17/16 13:03	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/17/16 13:03	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/17/16 13:03	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/17/16 13:03	107-06-2	
1,1-Dichloroethene	**0.57J**	ug/L	1.0	0.20	1		11/17/16 13:03	75-35-4	
cis-1,2-Dichloroethene	**2.8**	ug/L	1.0	0.080	1		11/17/16 13:03	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/17/16 13:03	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/17/16 13:03	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/17/16 13:03	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/17/16 13:03	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/17/16 13:03	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/17/16 13:03	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/17/16 13:03	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/17/16 13:03	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/17/16 13:03	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/17/16 13:03	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/17/16 13:03	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/17/16 13:03	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/17/16 13:03	71-55-6	L3
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/17/16 13:03	79-00-5	
Trichloroethene	**116**	ug/L	1.0	0.17	1		11/17/16 13:03	79-01-6	
Vinyl chloride	**0.21J**	ug/L	1.0	0.13	1		11/17/16 13:03	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/17/16 13:03	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	101	%	77-130		1		11/17/16 13:03	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	81-127		1		11/17/16 13:03	17060-07-0	
Toluene-d8 (S)	97	%	80-120		1		11/17/16 13:03	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/17/16 13:03		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231925

Sample: IW-73-201611 **Lab ID: 60231925004** Collected: 11/09/16 11:26 Received: 11/10/16 08:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	**1210**	ug/L	50.0	8.8	1	11/11/16 11:45	11/14/16 17:25	7439-89-6	
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/17/16 13:18	67-64-1	
Benzene	**0.14J**	ug/L	1.0	0.060	1		11/17/16 13:18	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/17/16 13:18	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/17/16 13:18	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/17/16 13:18	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/17/16 13:18	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/17/16 13:18	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/17/16 13:18	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/17/16 13:18	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/17/16 13:18	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/17/16 13:18	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/17/16 13:18	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/17/16 13:18	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/17/16 13:18	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/17/16 13:18	107-06-2	
1,1-Dichloroethene	**0.49J**	ug/L	1.0	0.20	1		11/17/16 13:18	75-35-4	
cis-1,2-Dichloroethene	**2.5**	ug/L	1.0	0.080	1		11/17/16 13:18	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/17/16 13:18	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/17/16 13:18	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/17/16 13:18	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/17/16 13:18	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/17/16 13:18	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/17/16 13:18	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/17/16 13:18	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/17/16 13:18	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/17/16 13:18	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/17/16 13:18	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/17/16 13:18	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/17/16 13:18	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/17/16 13:18	71-55-6	L3
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/17/16 13:18	79-00-5	
Trichloroethene	**113**	ug/L	1.0	0.17	1		11/17/16 13:18	79-01-6	
Vinyl chloride	**0.16J**	ug/L	1.0	0.13	1		11/17/16 13:18	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/17/16 13:18	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	93	%	77-130		1		11/17/16 13:18	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	81-127		1		11/17/16 13:18	17060-07-0	
Toluene-d8 (S)	102	%	80-120		1		11/17/16 13:18	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/17/16 13:18		
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D								
Sulfide, Total	ND	mg/L	0.050	0.019	1		11/14/16 12:12	18496-25-8	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231925

Sample: IW-73-201611 **Lab ID: 60231925004** Collected: 11/09/16 11:26 Received: 11/10/16 08:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	**13.9**	mg/L	1.0	0.15	1		11/19/16 12:46	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	**0.069J**	mg/L	0.10	0.012	1		11/10/16 16:10		
Nitrogen, Nitrite	ND	mg/L	0.10	0.010	1		11/10/16 16:10		
Nitrogen, NO2 plus NO3	**0.069J**	mg/L	0.10	0.012	1		11/10/16 16:10		
5310C TOC	Analytical Method: SM 5310C								
Total Organic Carbon	**0.51J**	mg/L	1.0	0.054	1		11/15/16 13:33	7440-44-0	B

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231925

Sample: MW-95-201611 **Lab ID: 60231925005** Collected: 11/09/16 14:05 Received: 11/10/16 08:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	**161**	ug/L	50.0	8.8	1	11/11/16 11:45	11/14/16 17:27	7439-89-6	
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/22/16 20:26	67-64-1	
Benzene	**0.11J**	ug/L	1.0	0.060	1		11/22/16 20:26	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/22/16 20:26	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/22/16 20:26	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/22/16 20:26	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/22/16 20:26	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/22/16 20:26	75-15-0	
Carbon tetrachloride	**0.33J**	ug/L	1.0	0.18	1		11/22/16 20:26	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/22/16 20:26	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/22/16 20:26	75-00-3	
Chloroform	**5.0**	ug/L	1.0	0.14	1		11/22/16 20:26	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/22/16 20:26	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/22/16 20:26	124-48-1	
1,1-Dichloroethane	**0.48J**	ug/L	1.0	0.050	1		11/22/16 20:26	75-34-3	
1,2-Dichloroethane	**0.20J**	ug/L	1.0	0.12	1		11/22/16 20:26	107-06-2	
1,1-Dichloroethene	**33.4**	ug/L	1.0	0.20	1		11/22/16 20:26	75-35-4	CC
cis-1,2-Dichloroethene	**191**	ug/L	1.0	0.080	1		11/22/16 20:26	156-59-2	
trans-1,2-Dichloroethene	**1.4**	ug/L	1.0	0.20	1		11/22/16 20:26	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/22/16 20:26	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/22/16 20:26	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/22/16 20:26	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/22/16 20:26	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/22/16 20:26	591-78-6	
Methylene chloride	**3.5**	ug/L	1.0	0.15	1		11/22/16 20:26	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/22/16 20:26	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/22/16 20:26	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/22/16 20:26	79-34-5	
Tetrachloroethene	**6.4**	ug/L	1.0	0.10	1		11/22/16 20:26	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/22/16 20:26	108-88-3	
1,1,1-Trichloroethane	**0.65J**	ug/L	1.0	0.11	1		11/22/16 20:26	71-55-6	
1,1,2-Trichloroethane	**1.7**	ug/L	1.0	0.20	1		11/22/16 20:26	79-00-5	
Trichloroethene	**28700**	ug/L	200	34.0	200		11/16/16 13:33	79-01-6	
Vinyl chloride	**46.9**	ug/L	1.0	0.13	1		11/22/16 20:26	75-01-4	L1
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/22/16 20:26	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	107	%	77-130		1		11/22/16 20:26	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	81-127		1		11/22/16 20:26	17060-07-0	
Toluene-d8 (S)	95	%	80-120		1		11/22/16 20:26	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/22/16 20:26		
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D								
Sulfide, Total	ND	mg/L	0.050	0.019	1		11/14/16 12:13	18496-25-8	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231925

Sample: MW-95-201611 **Lab ID: 60231925005** Collected: 11/09/16 14:05 Received: 11/10/16 08:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	**2.9**	mg/L	1.0	0.15	1		11/19/16 13:00	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	**1.3**	mg/L	0.10	0.012	1		11/10/16 16:14		
Nitrogen, Nitrite	ND	mg/L	0.10	0.010	1		11/10/16 16:14		
Nitrogen, NO2 plus NO3	**1.3**	mg/L	0.10	0.012	1		11/10/16 16:14		
5310C TOC	Analytical Method: SM 5310C								
Total Organic Carbon	**0.25J**	mg/L	1.0	0.054	1		11/19/16 12:42	7440-44-0	B

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231925

Sample: EB-01-201611 **Lab ID: 60231925006** Collected: 11/09/16 16:20 Received: 11/10/16 08:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/16/16 11:08	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/16/16 11:08	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 11:08	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 11:08	75-25-2	L3
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 11:08	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 11:08	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 11:08	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 11:08	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 11:08	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 11:08	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/16/16 11:08	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 11:08	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 11:08	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 11:08	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 11:08	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 11:08	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/16/16 11:08	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 11:08	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 11:08	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 11:08	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 11:08	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 11:08	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 11:08	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/16/16 11:08	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/16/16 11:08	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 11:08	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 11:08	79-34-5	L3
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 11:08	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/16/16 11:08	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 11:08	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 11:08	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/16/16 11:08	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/16/16 11:08	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 11:08	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	102	%	77-130		1		11/16/16 11:08	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	81-127		1		11/16/16 11:08	17060-07-0	
Toluene-d8 (S)	89	%	80-120		1		11/16/16 11:08	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 11:08		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231925

Sample: ITMW-16-201611 **Lab ID: 60231925007** Collected: 11/09/16 16:16 Received: 11/10/16 08:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/16/16 11:22	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/16/16 11:22	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 11:22	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 11:22	75-25-2	L3
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 11:22	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 11:22	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 11:22	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 11:22	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 11:22	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 11:22	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/16/16 11:22	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 11:22	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 11:22	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 11:22	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 11:22	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 11:22	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/16/16 11:22	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 11:22	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 11:22	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 11:22	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 11:22	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 11:22	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 11:22	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/16/16 11:22	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/16/16 11:22	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 11:22	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 11:22	79-34-5	L3
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 11:22	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/16/16 11:22	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 11:22	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 11:22	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/16/16 11:22	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/16/16 11:22	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 11:22	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	77-130		1		11/16/16 11:22	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	81-127		1		11/16/16 11:22	17060-07-0	
Toluene-d8 (S)	91	%	80-120		1		11/16/16 11:22	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 11:22		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231925

Sample: MW-27-201611 **Lab ID: 60231925008** Collected: 11/09/16 14:40 Received: 11/10/16 08:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	**2.1J**	ug/L	10.0	1.9	1		11/16/16 11:37	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/16/16 11:37	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 11:37	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 11:37	75-25-2	L3
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 11:37	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 11:37	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 11:37	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 11:37	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 11:37	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 11:37	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/16/16 11:37	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 11:37	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 11:37	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 11:37	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 11:37	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 11:37	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/16/16 11:37	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 11:37	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 11:37	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 11:37	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 11:37	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 11:37	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 11:37	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/16/16 11:37	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/16/16 11:37	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 11:37	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 11:37	79-34-5	L3,R1
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 11:37	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/16/16 11:37	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 11:37	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 11:37	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/16/16 11:37	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/16/16 11:37	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 11:37	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	77-130		1		11/16/16 11:37	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	81-127		1		11/16/16 11:37	17060-07-0	
Toluene-d8 (S)	95	%	80-120		1		11/16/16 11:37	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 11:37		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231925

Sample: MW-82-201611 **Lab ID: 60231925009** Collected: 11/09/16 09:36 Received: 11/10/16 08:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	**21.5**	ug/L	10.0	1.9	1		11/16/16 11:51	67-64-1	
Benzene	**0.16J**	ug/L	1.0	0.060	1		11/16/16 11:51	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 11:51	75-27-4	
Bromoform	**1.1**	ug/L	1.0	0.070	1		11/17/16 12:49	75-25-2	
Bromomethane	**0.82J**	ug/L	5.0	0.16	1		11/16/16 11:51	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 11:51	78-93-3	
Carbon disulfide	**0.33J**	ug/L	5.0	0.12	1		11/16/16 11:51	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 11:51	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 11:51	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 11:51	75-00-3	
Chloroform	**0.15J**	ug/L	1.0	0.14	1		11/16/16 11:51	67-66-3	
Chloromethane	**4.3**	ug/L	1.0	0.080	1		11/16/16 11:51	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 11:51	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 11:51	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 11:51	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 11:51	75-35-4	
cis-1,2-Dichloroethene	**0.24J**	ug/L	1.0	0.080	1		11/16/16 11:51	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 11:51	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 11:51	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 11:51	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 11:51	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 11:51	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 11:51	591-78-6	
Methylene chloride	**0.28J**	ug/L	1.0	0.15	1		11/16/16 11:51	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/16/16 11:51	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 11:51	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 11:51	79-34-5	L3
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 11:51	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/16/16 11:51	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 11:51	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 11:51	79-00-5	
Trichloroethene	**36.2**	ug/L	1.0	0.17	1		11/16/16 11:51	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/16/16 11:51	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 11:51	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	77-130		1		11/16/16 11:51	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	81-127		1		11/16/16 11:51	17060-07-0	
Toluene-d8 (S)	98	%	80-120		1		11/16/16 11:51	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 11:51		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231925

Sample: ITMW-21-201611 **Lab ID: 60231925010** Collected: 11/09/16 16:32 Received: 11/10/16 08:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	**2.2J**	ug/L	10.0	1.9	1		11/16/16 12:06	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/16/16 12:06	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 12:06	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 12:06	75-25-2	L3
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 12:06	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 12:06	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 12:06	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 12:06	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 12:06	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 12:06	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/16/16 12:06	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 12:06	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 12:06	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 12:06	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 12:06	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 12:06	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/16/16 12:06	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 12:06	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 12:06	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 12:06	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 12:06	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 12:06	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 12:06	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/16/16 12:06	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/16/16 12:06	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 12:06	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 12:06	79-34-5	L3
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 12:06	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/16/16 12:06	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 12:06	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 12:06	79-00-5	
Trichloroethene	**8.1**	ug/L	1.0	0.17	1		11/16/16 12:06	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/16/16 12:06	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 12:06	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	99	%	77-130		1		11/16/16 12:06	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	81-127		1		11/16/16 12:06	17060-07-0	
Toluene-d8 (S)	95	%	80-120		1		11/16/16 12:06	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 12:06		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231925

Sample: ITMW-18-201611 **Lab ID: 60231925011** Collected: 11/09/16 13:05 Received: 11/10/16 08:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	**14.8**	ug/L	10.0	1.9	1		11/14/16 12:02	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/14/16 12:02	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 12:02	75-27-4	
Bromoform	**0.98J**	ug/L	1.0	0.070	1		11/14/16 12:02	75-25-2	
Bromomethane	**12.4**	ug/L	5.0	0.16	1		11/14/16 12:02	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 12:02	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 12:02	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 12:02	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 12:02	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 12:02	75-00-3	
Chloroform	**0.27J**	ug/L	1.0	0.14	1		11/14/16 12:02	67-66-3	
Chloromethane	**7.8**	ug/L	1.0	0.080	1		11/14/16 12:02	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 12:02	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 12:02	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 12:02	107-06-2	
1,1-Dichloroethene	**0.24J**	ug/L	1.0	0.20	1		11/14/16 12:02	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/14/16 12:02	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 12:02	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 12:02	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 12:02	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 12:02	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 12:02	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 12:02	591-78-6	
Methylene chloride	**0.37J**	ug/L	1.0	0.15	1		11/14/16 12:02	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 12:02	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 12:02	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 12:02	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 12:02	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 12:02	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 12:02	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 12:02	79-00-5	
Trichloroethene	**10.1**	ug/L	1.0	0.17	1		11/14/16 12:02	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/14/16 12:02	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 12:02	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	98	%	77-130		1		11/14/16 12:02	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	81-127		1		11/14/16 12:02	17060-07-0	
Toluene-d8 (S)	98	%	80-120		1		11/14/16 12:02	2037-26-5	
Preservation pH	**3.0**		0.10	0.10	1		11/14/16 12:02		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231925

Sample: ITMW-19-201611 **Lab ID: 60231925012** Collected: 11/09/16 15:10 Received: 11/10/16 08:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	**16.6**	ug/L	10.0	1.9	1		11/14/16 12:46	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/14/16 12:46	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 12:46	75-27-4	
Bromoform	**0.93J**	ug/L	1.0	0.070	1		11/14/16 12:46	75-25-2	
Bromomethane	**1.6J**	ug/L	5.0	0.16	1		11/14/16 12:46	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 12:46	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 12:46	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 12:46	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 12:46	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 12:46	75-00-3	
Chloroform	**0.50J**	ug/L	1.0	0.14	1		11/14/16 12:46	67-66-3	
Chloromethane	**1.5**	ug/L	1.0	0.080	1		11/14/16 12:46	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 12:46	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 12:46	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 12:46	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 12:46	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/14/16 12:46	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 12:46	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 12:46	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 12:46	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 12:46	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 12:46	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 12:46	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 12:46	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 12:46	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 12:46	100-42-5	
1,1,2,2-Tetrachloroethane	**0.41J**	ug/L	1.0	0.15	1		11/14/16 12:46	79-34-5	
Tetrachloroethene	**0.19J**	ug/L	1.0	0.10	1		11/14/16 12:46	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 12:46	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 12:46	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 12:46	79-00-5	
Trichloroethene	**137**	ug/L	1.0	0.17	1		11/14/16 12:46	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/14/16 12:46	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 12:46	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	99	%	77-130		1		11/14/16 12:46	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	81-127		1		11/14/16 12:46	17060-07-0	
Toluene-d8 (S)	101	%	80-120		1		11/14/16 12:46	2037-26-5	
Preservation pH	**5.0**		0.10	0.10	1		11/14/16 12:46		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231925

Sample: MW-29-201611 **Lab ID: 60231925013** Collected: 11/09/16 09:20 Received: 11/10/16 08:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/16/16 12:20	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/16/16 12:20	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 12:20	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 12:20	75-25-2	L3
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 12:20	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 12:20	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 12:20	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 12:20	56-23-5	
Chlorobenzene	**1.1**	ug/L	1.0	0.21	1		11/16/16 12:20	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 12:20	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/16/16 12:20	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 12:20	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 12:20	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 12:20	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 12:20	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 12:20	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/16/16 12:20	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 12:20	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 12:20	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 12:20	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 12:20	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 12:20	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 12:20	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/16/16 12:20	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/16/16 12:20	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 12:20	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 12:20	79-34-5	L3
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 12:20	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/16/16 12:20	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 12:20	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 12:20	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/16/16 12:20	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/16/16 12:20	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 12:20	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	77-130		1		11/16/16 12:20	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	81-127		1		11/16/16 12:20	17060-07-0	
Toluene-d8 (S)	104	%	80-120		1		11/16/16 12:20	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 12:20		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231925

Sample: MW-26-201611 **Lab ID: 60231925014** Collected: 11/09/16 13:06 Received: 11/10/16 08:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/16/16 12:35	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/16/16 12:35	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 12:35	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 12:35	75-25-2	L3
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 12:35	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 12:35	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 12:35	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 12:35	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 12:35	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 12:35	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/16/16 12:35	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 12:35	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 12:35	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 12:35	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 12:35	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 12:35	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/16/16 12:35	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 12:35	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 12:35	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 12:35	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 12:35	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 12:35	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 12:35	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/16/16 12:35	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/16/16 12:35	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 12:35	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 12:35	79-34-5	L3
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 12:35	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/16/16 12:35	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 12:35	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 12:35	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/16/16 12:35	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/16/16 12:35	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 12:35	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	77-130		1		11/16/16 12:35	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	81-127		1		11/16/16 12:35	17060-07-0	
Toluene-d8 (S)	83	%	80-120		1		11/16/16 12:35	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 12:35		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231925

Sample: ITMW-20-201611 **Lab ID: 60231925015** Collected: 11/09/16 11:05 Received: 11/10/16 08:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	**4.6J**	ug/L	10.0	1.9	1		11/16/16 12:49	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/16/16 12:49	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 12:49	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 12:49	75-25-2	L3
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 12:49	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 12:49	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 12:49	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 12:49	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 12:49	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 12:49	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/16/16 12:49	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 12:49	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 12:49	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 12:49	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 12:49	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 12:49	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/16/16 12:49	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 12:49	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 12:49	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 12:49	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 12:49	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 12:49	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 12:49	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/16/16 12:49	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/16/16 12:49	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 12:49	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 12:49	79-34-5	L3
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 12:49	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/16/16 12:49	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 12:49	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 12:49	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/16/16 12:49	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/16/16 12:49	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 12:49	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	101	%	77-130		1		11/16/16 12:49	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	81-127		1		11/16/16 12:49	17060-07-0	
Toluene-d8 (S)	93	%	80-120		1		11/16/16 12:49	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 12:49		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231925

Sample: ITMW-2-201611 **Lab ID: 60231925016** Collected: 11/09/16 11:25 Received: 11/10/16 08:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/16/16 16:56	67-64-1	
Benzene	**0.13J**	ug/L	1.0	0.060	1		11/16/16 16:56	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 16:56	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 16:56	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 16:56	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 16:56	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 16:56	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 16:56	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 16:56	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 16:56	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/16/16 16:56	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 16:56	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 16:56	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 16:56	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 16:56	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 16:56	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/16/16 16:56	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 16:56	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 16:56	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 16:56	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 16:56	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 16:56	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 16:56	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/16/16 16:56	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/16/16 16:56	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 16:56	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 16:56	79-34-5	
Tetrachloroethene	**0.78J**	ug/L	1.0	0.10	1		11/16/16 16:56	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/16/16 16:56	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 16:56	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 16:56	79-00-5	L3
Trichloroethene	ND	ug/L	1.0	0.17	1		11/16/16 16:56	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/16/16 16:56	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 16:56	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	112	%	77-130		1		11/16/16 16:56	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	81-127		1		11/16/16 16:56	17060-07-0	
Toluene-d8 (S)	101	%	80-120		1		11/16/16 16:56	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 16:56		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231925

Sample: MW-183-201611 **Lab ID: 60231925017** Collected: 11/09/16 08:20 Received: 11/10/16 08:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/16/16 17:11	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/16/16 17:11	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 17:11	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 17:11	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 17:11	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 17:11	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 17:11	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 17:11	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 17:11	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 17:11	75-00-3	
Chloroform	**0.30J**	ug/L	1.0	0.14	1		11/16/16 17:11	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 17:11	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 17:11	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 17:11	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 17:11	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 17:11	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/16/16 17:11	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 17:11	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 17:11	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 17:11	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 17:11	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 17:11	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 17:11	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/16/16 17:11	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/16/16 17:11	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 17:11	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 17:11	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 17:11	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/16/16 17:11	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 17:11	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 17:11	79-00-5	L3
Trichloroethene	**5.3**	ug/L	1.0	0.17	1		11/16/16 17:11	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/16/16 17:11	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 17:11	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	104	%	77-130		1		11/16/16 17:11	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	81-127		1		11/16/16 17:11	17060-07-0	
Toluene-d8 (S)	100	%	80-120		1		11/16/16 17:11	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 17:11		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231925

Sample: MW-192-201611 **Lab ID: 60231925018** Collected: 11/09/16 09:35 Received: 11/10/16 08:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/16/16 17:25	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/16/16 17:25	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 17:25	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 17:25	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 17:25	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 17:25	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 17:25	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 17:25	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 17:25	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 17:25	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/16/16 17:25	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 17:25	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 17:25	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 17:25	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 17:25	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 17:25	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/16/16 17:25	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 17:25	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 17:25	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 17:25	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 17:25	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 17:25	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 17:25	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/16/16 17:25	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/16/16 17:25	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 17:25	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 17:25	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 17:25	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/16/16 17:25	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 17:25	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 17:25	79-00-5	L3
Trichloroethene	ND	ug/L	1.0	0.17	1		11/16/16 17:25	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/16/16 17:25	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 17:25	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	77-130		1		11/16/16 17:25	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	81-127		1		11/16/16 17:25	17060-07-0	
Toluene-d8 (S)	96	%	80-120		1		11/16/16 17:25	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 17:25		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231925

Sample: MW-84-201611 **Lab ID: 60231925019** Collected: 11/09/16 12:24 Received: 11/10/16 08:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	**16.9**	ug/L	10.0	1.9	1		11/14/16 12:17	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/14/16 12:17	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 12:17	75-27-4	
Bromoform	**7.4**	ug/L	1.0	0.070	1		11/14/16 12:17	75-25-2	
Bromomethane	**2.0J**	ug/L	5.0	0.16	1		11/14/16 12:17	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 12:17	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 12:17	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 12:17	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 12:17	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 12:17	75-00-3	
Chloroform	**0.28J**	ug/L	1.0	0.14	1		11/14/16 12:17	67-66-3	
Chloromethane	**3.6**	ug/L	1.0	0.080	1		11/14/16 12:17	74-87-3	
Dibromochloromethane	**0.36J**	ug/L	1.0	0.21	1		11/14/16 12:17	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 12:17	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 12:17	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 12:17	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/14/16 12:17	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 12:17	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 12:17	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 12:17	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 12:17	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 12:17	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 12:17	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 12:17	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 12:17	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 12:17	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 12:17	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 12:17	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 12:17	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 12:17	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 12:17	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/14/16 12:17	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/14/16 12:17	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 12:17	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	77-130		1		11/14/16 12:17	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	81-127		1		11/14/16 12:17	17060-07-0	
Toluene-d8 (S)	98	%	80-120		1		11/14/16 12:17	2037-26-5	
Preservation pH	**5.0**		0.10	0.10	1		11/14/16 12:17		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231925

Sample: TB-4-201611 **Lab ID: 60231925020** Collected: 11/09/16 08:20 Received: 11/10/16 08:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/16/16 15:44	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/16/16 15:44	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 15:44	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 15:44	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 15:44	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 15:44	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 15:44	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 15:44	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 15:44	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 15:44	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/16/16 15:44	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 15:44	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 15:44	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 15:44	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 15:44	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 15:44	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/16/16 15:44	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 15:44	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 15:44	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 15:44	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 15:44	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 15:44	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 15:44	591-78-6	
Methylene chloride	**0.25J**	ug/L	1.0	0.15	1		11/16/16 15:44	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/16/16 15:44	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 15:44	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 15:44	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 15:44	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/16/16 15:44	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 15:44	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 15:44	79-00-5	L3
Trichloroethene	ND	ug/L	1.0	0.17	1		11/16/16 15:44	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/16/16 15:44	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 15:44	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	98	%	77-130		1		11/16/16 15:44	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	81-127		1		11/16/16 15:44	17060-07-0	
Toluene-d8 (S)	98	%	80-120		1		11/16/16 15:44	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 15:44		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231925

Sample: TB-2-201611 **Lab ID: 60231925021** Collected: 11/09/16 08:20 Received: 11/10/16 08:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/16/16 15:58	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/16/16 15:58	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 15:58	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 15:58	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 15:58	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 15:58	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 15:58	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 15:58	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 15:58	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 15:58	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/16/16 15:58	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 15:58	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 15:58	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 15:58	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 15:58	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 15:58	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/16/16 15:58	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 15:58	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 15:58	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 15:58	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 15:58	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 15:58	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 15:58	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/16/16 15:58	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/16/16 15:58	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 15:58	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 15:58	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 15:58	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/16/16 15:58	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 15:58	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 15:58	79-00-5	L3
Trichloroethene	ND	ug/L	1.0	0.17	1		11/16/16 15:58	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/16/16 15:58	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 15:58	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	98	%	77-130		1		11/16/16 15:58	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	81-127		1		11/16/16 15:58	17060-07-0	
Toluene-d8 (S)	96	%	80-120		1		11/16/16 15:58	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 15:58		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231925

Sample: MW-83-201611 **Lab ID: 60231925022** Collected: 11/09/16 14:22 Received: 11/10/16 08:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	**18.5**	ug/L	10.0	1.9	1		11/14/16 12:31	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/14/16 12:31	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/14/16 12:31	75-27-4	
Bromoform	**3.4**	ug/L	1.0	0.070	1		11/14/16 12:31	75-25-2	
Bromomethane	**1.1J**	ug/L	5.0	0.16	1		11/14/16 12:31	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/14/16 12:31	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/14/16 12:31	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/14/16 12:31	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/14/16 12:31	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/14/16 12:31	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/14/16 12:31	67-66-3	
Chloromethane	**2.5**	ug/L	1.0	0.080	1		11/14/16 12:31	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/14/16 12:31	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/14/16 12:31	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/14/16 12:31	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 12:31	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/14/16 12:31	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/14/16 12:31	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/14/16 12:31	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/14/16 12:31	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/14/16 12:31	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/14/16 12:31	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/14/16 12:31	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/14/16 12:31	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/14/16 12:31	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/14/16 12:31	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/14/16 12:31	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/14/16 12:31	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/14/16 12:31	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/14/16 12:31	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/14/16 12:31	79-00-5	
Trichloroethene	**0.63J**	ug/L	1.0	0.17	1		11/14/16 12:31	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/14/16 12:31	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/14/16 12:31	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	98	%	77-130		1		11/14/16 12:31	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	81-127		1		11/14/16 12:31	17060-07-0	
Toluene-d8 (S)	100	%	80-120		1		11/14/16 12:31	2037-26-5	
Preservation pH	**4.0**		0.10	0.10	1		11/14/16 12:31		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231925

Sample: MW-86-201611 **Lab ID: 60231925023** Collected: 11/09/16 15:50 Received: 11/10/16 08:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	**2600**	ug/L	50.0	8.8	1	11/11/16 11:45	11/14/16 17:29	7439-89-6	
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	**47.2**	ug/L	10.0	1.9	1		11/22/16 20:40	67-64-1	
Benzene	**0.33J**	ug/L	1.0	0.060	1		11/22/16 20:40	71-43-2	
Bromodichloromethane	**2.8**	ug/L	1.0	0.19	1		11/22/16 20:40	75-27-4	
Bromoform	**5.6**	ug/L	1.0	0.070	1		11/22/16 20:40	75-25-2	
Bromomethane	**2.8J**	ug/L	5.0	0.16	1		11/22/16 20:40	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/22/16 20:40	78-93-3	
Carbon disulfide	**2.6J**	ug/L	5.0	0.12	1		11/22/16 20:40	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/22/16 20:40	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/22/16 20:40	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/22/16 20:40	75-00-3	
Chloroform	**29.4**	ug/L	1.0	0.14	1		11/22/16 20:40	67-66-3	
Chloromethane	**1.5**	ug/L	1.0	0.080	1		11/22/16 20:40	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/22/16 20:40	124-48-1	
1,1-Dichloroethane	**5.6**	ug/L	1.0	0.050	1		11/22/16 20:40	75-34-3	
1,2-Dichloroethane	**0.51J**	ug/L	1.0	0.12	1		11/22/16 20:40	107-06-2	
1,1-Dichloroethene	**27.9**	ug/L	1.0	0.20	1		11/22/16 20:40	75-35-4	CC
cis-1,2-Dichloroethene	ND	ug/L	1000	80.0	1000		11/16/16 19:22	156-59-2	
trans-1,2-Dichloroethene	**58.4**	ug/L	1.0	0.20	1		11/22/16 20:40	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/22/16 20:40	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/22/16 20:40	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/22/16 20:40	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/22/16 20:40	100-41-4	
2-Hexanone	**1.6J**	ug/L	10.0	1.2	1		11/22/16 20:40	591-78-6	
Methylene chloride	**7.7**	ug/L	1.0	0.15	1		11/22/16 20:40	75-09-2	
4-Methyl-2-pentanone (MIBK)	**0.56J**	ug/L	10.0	0.42	1		11/22/16 20:40	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/22/16 20:40	100-42-5	
1,1,2,2-Tetrachloroethane	**222J**	ug/L	1000	150	1000		11/16/16 19:22	79-34-5	
Tetrachloroethene	**28.5**	ug/L	1.0	0.10	1		11/22/16 20:40	127-18-4	
Toluene	**2.8**	ug/L	1.0	0.17	1		11/22/16 20:40	108-88-3	
1,1,1-Trichloroethane	**195J**	ug/L	1000	110	1000		11/16/16 19:22	71-55-6	
1,1,2-Trichloroethane	**3.7**	ug/L	1.0	0.20	1		11/22/16 20:40	79-00-5	
Trichloroethene	**75100**	ug/L	1000	170	1000		11/16/16 19:22	79-01-6	
Vinyl chloride	**65.4**	ug/L	1.0	0.13	1		11/22/16 20:40	75-01-4	L1
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/22/16 20:40	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	106	%	77-130		1		11/22/16 20:40	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	81-127		1		11/22/16 20:40	17060-07-0	
Toluene-d8 (S)	97	%	80-120		1		11/22/16 20:40	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/22/16 20:40		
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D								
Sulfide, Total	ND	mg/L	0.050	0.019	1		11/14/16 12:13	18496-25-8	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231925

Sample: MW-86-201611 **Lab ID: 60231925023** Collected: 11/09/16 15:50 Received: 11/10/16 08:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	**2590**	mg/L	200	30.9	200		11/20/16 13:44	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	**0.86**	mg/L	0.10	0.012	1		11/10/16 16:15		
Nitrogen, Nitrite	**0.12**	mg/L	0.10	0.010	1		11/10/16 16:15		
Nitrogen, NO2 plus NO3	**0.98**	mg/L	0.10	0.012	1		11/10/16 16:15		
5310C TOC	Analytical Method: SM 5310C								
Total Organic Carbon	**6.8**	mg/L	1.0	0.054	1		11/19/16 12:54	7440-44-0	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231925

Sample: MW-25-201611 **Lab ID: 60231925024** Collected: 11/09/16 13:40 Received: 11/10/16 08:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	**1380**	ug/L	50.0	8.8	1	11/11/16 11:45	11/14/16 17:32	7439-89-6	
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	**109**	ug/L	10.0	1.9	1		11/15/16 16:44	67-64-1	
Benzene	**0.41J**	ug/L	1.0	0.060	1		11/15/16 16:44	71-43-2	
Bromodichloromethane	**1.3**	ug/L	1.0	0.19	1		11/15/16 16:44	75-27-4	
Bromoform	**6.1**	ug/L	1.0	0.070	1		11/15/16 16:44	75-25-2	
Bromomethane	**10.3**	ug/L	5.0	0.16	1		11/15/16 16:44	74-83-9	L1
2-Butanone (MEK)	**8.6J**	ug/L	10.0	0.59	1		11/15/16 16:44	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/15/16 16:44	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/15/16 16:44	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/15/16 16:44	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/15/16 16:44	75-00-3	
Chloroform	**23.1**	ug/L	1.0	0.14	1		11/15/16 16:44	67-66-3	
Chloromethane	**43.1**	ug/L	1.0	0.080	1		11/15/16 16:44	74-87-3	
Dibromochloromethane	**0.77J**	ug/L	1.0	0.21	1		11/15/16 16:44	124-48-1	
1,1-Dichloroethane	**4.5**	ug/L	1.0	0.050	1		11/15/16 16:44	75-34-3	
1,2-Dichloroethane	**1.1**	ug/L	1.0	0.12	1		11/15/16 16:44	107-06-2	
1,1-Dichloroethene	**18.2**	ug/L	1.0	0.20	1		11/15/16 16:44	75-35-4	
cis-1,2-Dichloroethene	**509J**	ug/L	1000	80.0	1000		11/14/16 13:00	156-59-2	
trans-1,2-Dichloroethene	**167**	ug/L	1.0	0.20	1		11/15/16 16:44	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/15/16 16:44	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/15/16 16:44	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/15/16 16:44	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/15/16 16:44	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/15/16 16:44	591-78-6	
Methylene chloride	**13.3**	ug/L	1.0	0.15	1		11/15/16 16:44	75-09-2	
4-Methyl-2-pentanone (MIBK)	**3.1J**	ug/L	10.0	0.42	1		11/15/16 16:44	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/15/16 16:44	100-42-5	
1,1,2,2-Tetrachloroethane	**97.0**	ug/L	1.0	0.15	1		11/15/16 16:44	79-34-5	
Tetrachloroethene	**16.8**	ug/L	1.0	0.10	1		11/15/16 16:44	127-18-4	
Toluene	**1.0**	ug/L	1.0	0.17	1		11/15/16 16:44	108-88-3	
1,1,1-Trichloroethane	**7.6**	ug/L	1.0	0.11	1		11/15/16 16:44	71-55-6	
1,1,2-Trichloroethane	**1.9**	ug/L	1.0	0.20	1		11/15/16 16:44	79-00-5	
Trichloroethene	**36900**	ug/L	1000	170	1000		11/14/16 13:00	79-01-6	
Vinyl chloride	ND	ug/L	1000	130	1000		11/14/16 13:00	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/15/16 16:44	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	102	%	77-130		1		11/15/16 16:44	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	81-127		1		11/15/16 16:44	17060-07-0	
Toluene-d8 (S)	100	%	80-120		1		11/15/16 16:44	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/15/16 16:44		
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D								
Sulfide, Total	ND	mg/L	0.050	0.019	1		11/14/16 12:14	18496-25-8	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231925

Sample: MW-25-201611 **Lab ID: 60231925024** Collected: 11/09/16 13:40 Received: 11/10/16 08:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	**2000**	mg/L	200	30.9	200		11/20/16 13:58	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	**0.54**	mg/L	0.10	0.012	1		11/10/16 16:13		
Nitrogen, Nitrite	ND	mg/L	0.10	0.010	1		11/10/16 16:13		M1
Nitrogen, NO2 plus NO3	**0.54**	mg/L	0.10	0.012	1		11/10/16 16:13		
5310C TOC	Analytical Method: SM 5310C								
Total Organic Carbon	**3.1**	mg/L	1.0	0.054	1		11/19/16 13:07	7440-44-0	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231925

Sample: RW-69-201611 **Lab ID: 60231925025** Collected: 11/09/16 10:25 Received: 11/10/16 08:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	**525**	ug/L	50.0	8.8	1	11/11/16 11:45	11/14/16 17:34	7439-89-6	
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/16/16 18:53	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/16/16 18:53	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 18:53	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 18:53	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 18:53	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 18:53	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 18:53	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 18:53	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 18:53	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 18:53	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/16/16 18:53	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 18:53	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 18:53	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 18:53	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 18:53	107-06-2	
1,1-Dichloroethene	**0.89J**	ug/L	1.0	0.20	1		11/16/16 18:53	75-35-4	
cis-1,2-Dichloroethene	**6.2**	ug/L	1.0	0.080	1		11/16/16 18:53	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 18:53	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 18:53	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 18:53	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 18:53	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 18:53	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 18:53	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/16/16 18:53	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/16/16 18:53	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 18:53	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 18:53	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 18:53	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/16/16 18:53	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 18:53	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 18:53	79-00-5	L3
Trichloroethene	**185**	ug/L	1.0	0.17	1		11/16/16 18:53	79-01-6	
Vinyl chloride	**0.26J**	ug/L	1.0	0.13	1		11/16/16 18:53	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 18:53	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	95	%	77-130		1		11/16/16 18:53	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	81-127		1		11/16/16 18:53	17060-07-0	
Toluene-d8 (S)	90	%	80-120		1		11/16/16 18:53	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 18:53		
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D								
Sulfide, Total	ND	mg/L	0.050	0.019	1		11/14/16 12:14	18496-25-8	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231925

Sample: RW-69-201611 **Lab ID: 60231925025** Collected: 11/09/16 10:25 Received: 11/10/16 08:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	**3.4**	mg/L	1.0	0.15	1		11/19/16 13:42	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	ND	mg/L	0.10	0.012	1		11/10/16 16:06		
Nitrogen, Nitrite	ND	mg/L	0.10	0.010	1		11/10/16 16:06		
Nitrogen, NO2 plus NO3	ND	mg/L	0.10	0.012	1		11/10/16 16:06		
5310C TOC	Analytical Method: SM 5310C								
Total Organic Carbon	**0.46J**	mg/L	1.0	0.054	1		11/19/16 13:20	7440-44-0	B

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231925

Sample: MW-195-201611 **Lab ID: 60231925026** Collected: 11/09/16 09:45 Received: 11/10/16 08:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/16/16 17:40	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/16/16 17:40	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 17:40	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 17:40	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 17:40	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 17:40	78-93-3	
Carbon disulfide	**0.16J**	ug/L	5.0	0.12	1		11/16/16 17:40	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 17:40	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 17:40	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 17:40	75-00-3	
Chloroform	**0.16J**	ug/L	1.0	0.14	1		11/16/16 17:40	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 17:40	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 17:40	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 17:40	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 17:40	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 17:40	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/16/16 17:40	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 17:40	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 17:40	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 17:40	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 17:40	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 17:40	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 17:40	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/16/16 17:40	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/16/16 17:40	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 17:40	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 17:40	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 17:40	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/16/16 17:40	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 17:40	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 17:40	79-00-5	L3
Trichloroethene	ND	ug/L	1.0	0.17	1		11/16/16 17:40	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/16/16 17:40	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 17:40	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	96	%	77-130		1		11/16/16 17:40	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	81-127		1		11/16/16 17:40	17060-07-0	
Toluene-d8 (S)	98	%	80-120		1		11/16/16 17:40	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 17:40		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231925

Sample: DUP-02-201611 **Lab ID: 60231925027** Collected: 11/09/16 15:25 Received: 11/10/16 08:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/16/16 18:38	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/16/16 18:38	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 18:38	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 18:38	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 18:38	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 18:38	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 18:38	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 18:38	56-23-5	
Chlorobenzene	**0.91J**	ug/L	1.0	0.21	1		11/16/16 18:38	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 18:38	75-00-3	
Chloroform	**0.14J**	ug/L	1.0	0.14	1		11/16/16 18:38	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 18:38	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 18:38	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 18:38	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 18:38	107-06-2	
1,1-Dichloroethene	**0.20J**	ug/L	1.0	0.20	1		11/16/16 18:38	75-35-4	
cis-1,2-Dichloroethene	**15.5**	ug/L	1.0	0.080	1		11/16/16 18:38	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 18:38	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 18:38	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 18:38	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 18:38	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 18:38	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 18:38	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/16/16 18:38	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/16/16 18:38	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 18:38	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 18:38	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 18:38	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/16/16 18:38	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 18:38	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 18:38	79-00-5	L3
Trichloroethene	**204**	ug/L	5.0	0.85	5		11/17/16 13:47	79-01-6	
Vinyl chloride	**0.20J**	ug/L	1.0	0.13	1		11/16/16 18:38	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 18:38	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	77-130		1		11/16/16 18:38	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	81-127		1		11/16/16 18:38	17060-07-0	
Toluene-d8 (S)	98	%	80-120		1		11/16/16 18:38	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 18:38		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231925

Sample: MW-182-201611 **Lab ID: 60231925028** Collected: 11/09/16 15:25 Received: 11/10/16 08:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/16/16 19:07	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/16/16 19:07	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 19:07	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 19:07	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 19:07	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 19:07	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 19:07	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 19:07	56-23-5	
Chlorobenzene	**0.70J**	ug/L	1.0	0.21	1		11/16/16 19:07	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 19:07	75-00-3	
Chloroform	**0.19J**	ug/L	1.0	0.14	1		11/16/16 19:07	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 19:07	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 19:07	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 19:07	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 19:07	107-06-2	
1,1-Dichloroethene	**0.20J**	ug/L	1.0	0.20	1		11/16/16 19:07	75-35-4	
cis-1,2-Dichloroethene	**14.6**	ug/L	1.0	0.080	1		11/16/16 19:07	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 19:07	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 19:07	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 19:07	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 19:07	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 19:07	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 19:07	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/16/16 19:07	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/16/16 19:07	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 19:07	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 19:07	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 19:07	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/16/16 19:07	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 19:07	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 19:07	79-00-5	L3
Trichloroethene	**192**	ug/L	5.0	0.85	5		11/17/16 14:01	79-01-6	
Vinyl chloride	**0.28J**	ug/L	1.0	0.13	1		11/16/16 19:07	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 19:07	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	77-130		1		11/16/16 19:07	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	81-127		1		11/16/16 19:07	17060-07-0	
Toluene-d8 (S)	92	%	80-120		1		11/16/16 19:07	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 19:07		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231925

Sample: MW-188-201611 **Lab ID: 60231925029** Collected: 11/09/16 14:05 Received: 11/10/16 08:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/16/16 17:55	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/16/16 17:55	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 17:55	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 17:55	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 17:55	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 17:55	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 17:55	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 17:55	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 17:55	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 17:55	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/16/16 17:55	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 17:55	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 17:55	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 17:55	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 17:55	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 17:55	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/16/16 17:55	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 17:55	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 17:55	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 17:55	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 17:55	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 17:55	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 17:55	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/16/16 17:55	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/16/16 17:55	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 17:55	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 17:55	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 17:55	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/16/16 17:55	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 17:55	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 17:55	79-00-5	L3
Trichloroethene	ND	ug/L	1.0	0.17	1		11/16/16 17:55	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/16/16 17:55	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 17:55	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	99	%	77-130		1		11/16/16 17:55	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	81-127		1		11/16/16 17:55	17060-07-0	
Toluene-d8 (S)	98	%	80-120		1		11/16/16 17:55	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 17:55		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231925

Sample: MW-187-201611 **Lab ID: 60231925030** Collected: 11/09/16 12:45 Received: 11/10/16 08:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/16/16 18:09	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/16/16 18:09	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 18:09	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 18:09	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 18:09	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 18:09	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 18:09	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 18:09	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 18:09	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 18:09	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/16/16 18:09	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 18:09	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 18:09	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 18:09	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 18:09	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 18:09	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/16/16 18:09	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 18:09	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 18:09	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 18:09	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 18:09	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 18:09	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 18:09	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/16/16 18:09	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/16/16 18:09	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 18:09	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 18:09	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 18:09	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/16/16 18:09	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 18:09	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 18:09	79-00-5	L3
Trichloroethene	ND	ug/L	1.0	0.17	1		11/16/16 18:09	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/16/16 18:09	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 18:09	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	113	%	77-130		1		11/16/16 18:09	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	81-127		1		11/16/16 18:09	17060-07-0	
Toluene-d8 (S)	88	%	80-120		1		11/16/16 18:09	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 18:09		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231925

Sample: MW-196-201611 **Lab ID: 60231925031** Collected: 11/09/16 11:15 Received: 11/10/16 08:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/16/16 18:24	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/16/16 18:24	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 18:24	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 18:24	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 18:24	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 18:24	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 18:24	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 18:24	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 18:24	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 18:24	75-00-3	
Chloroform	**0.17J**	ug/L	1.0	0.14	1		11/16/16 18:24	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 18:24	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 18:24	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 18:24	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 18:24	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 18:24	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/16/16 18:24	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 18:24	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 18:24	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 18:24	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 18:24	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 18:24	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 18:24	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/16/16 18:24	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/16/16 18:24	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 18:24	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 18:24	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 18:24	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/16/16 18:24	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 18:24	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 18:24	79-00-5	L3
Trichloroethene	ND	ug/L	1.0	0.17	1		11/16/16 18:24	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/16/16 18:24	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 18:24	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	87	%	77-130		1		11/16/16 18:24	460-00-4	
1,2-Dichloroethane-d4 (S)	92	%	81-127		1		11/16/16 18:24	17060-07-0	
Toluene-d8 (S)	99	%	80-120		1		11/16/16 18:24	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 18:24		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231925

Sample: EB-05-201611 **Lab ID: 60231925032** Collected: 11/09/16 16:50 Received: 11/10/16 08:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	**3.0J**	ug/L	10.0	1.9	1		11/16/16 16:13	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/16/16 16:13	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 16:13	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 16:13	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 16:13	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 16:13	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 16:13	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 16:13	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 16:13	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 16:13	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/16/16 16:13	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 16:13	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 16:13	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 16:13	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 16:13	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 16:13	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/16/16 16:13	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 16:13	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 16:13	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 16:13	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 16:13	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 16:13	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 16:13	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/16/16 16:13	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/16/16 16:13	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 16:13	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 16:13	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 16:13	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/16/16 16:13	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 16:13	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 16:13	79-00-5	L3
Trichloroethene	ND	ug/L	1.0	0.17	1		11/16/16 16:13	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/16/16 16:13	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 16:13	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	95	%	77-130		1		11/16/16 16:13	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	81-127		1		11/16/16 16:13	17060-07-0	
Toluene-d8 (S)	95	%	80-120		1		11/16/16 16:13	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 16:13		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60231925

Sample: EB-06-201611 **Lab ID: 60231925033** Collected: 11/09/16 17:25 Received: 11/10/16 08:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/16/16 16:27	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/16/16 16:27	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 16:27	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 16:27	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 16:27	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 16:27	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 16:27	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 16:27	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 16:27	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 16:27	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/16/16 16:27	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 16:27	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 16:27	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 16:27	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 16:27	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 16:27	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/16/16 16:27	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 16:27	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 16:27	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 16:27	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 16:27	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 16:27	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 16:27	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/16/16 16:27	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/16/16 16:27	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 16:27	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 16:27	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 16:27	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/16/16 16:27	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 16:27	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 16:27	79-00-5	L3
Trichloroethene	ND	ug/L	1.0	0.17	1		11/16/16 16:27	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/16/16 16:27	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 16:27	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	107	%	77-130		1		11/16/16 16:27	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	81-127		1		11/16/16 16:27	17060-07-0	
Toluene-d8 (S)	88	%	80-120		1		11/16/16 16:27	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 16:27		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231925

QC Batch: 454539 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET
Associated Lab Samples: 60231925004, 60231925005, 60231925023, 60231925024, 60231925025

METHOD BLANK: 1861302 Matrix: Water
Associated Lab Samples: 60231925004, 60231925005, 60231925023, 60231925024, 60231925025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron	ug/L	ND	50.0	8.8	11/15/16 12:51	

LABORATORY CONTROL SAMPLE: 1861303

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron	ug/L	10000	10000	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1861304 1861305

Parameter	Units	60231955004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron	ug/L	5940	10000	10000	15500	15000	96	91	75-125	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1861306 1861307

Parameter	Units	60231848025 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron	ug/L	22.7J	10000	10000	9390	9720	94	97	75-125	3	20	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231925

QC Batch: 454968 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60231925001, 60231925002, 60231925005, 60231925006, 60231925007, 60231925008, 60231925009, 60231925010, 60231925013, 60231925014, 60231925015

METHOD BLANK: 1863067 Matrix: Water
Associated Lab Samples: 60231925001, 60231925002, 60231925005, 60231925006, 60231925007, 60231925008, 60231925009, 60231925010, 60231925013, 60231925014, 60231925015

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	0.11	11/16/16 08:42	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.15	11/16/16 08:42	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.20	11/16/16 08:42	
1,1-Dichloroethane	ug/L	ND	1.0	0.050	11/16/16 08:42	
1,1-Dichloroethene	ug/L	ND	1.0	0.20	11/16/16 08:42	
1,2-Dichloroethane	ug/L	ND	1.0	0.12	11/16/16 08:42	
1,2-Dichloropropane	ug/L	ND	1.0	0.16	11/16/16 08:42	
2-Butanone (MEK)	ug/L	ND	10.0	0.59	11/16/16 08:42	
2-Hexanone	ug/L	ND	10.0	1.2	11/16/16 08:42	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	0.42	11/16/16 08:42	
Acetone	ug/L	ND	10.0	1.9	11/16/16 08:42	
Benzene	ug/L	ND	1.0	0.060	11/16/16 08:42	
Bromodichloromethane	ug/L	ND	1.0	0.19	11/16/16 08:42	
Bromoform	ug/L	ND	1.0	0.070	11/16/16 08:42	
Bromomethane	ug/L	ND	5.0	0.16	11/16/16 08:42	
Carbon disulfide	ug/L	ND	5.0	0.12	11/16/16 08:42	
Carbon tetrachloride	ug/L	ND	1.0	0.18	11/16/16 08:42	
Chlorobenzene	ug/L	ND	1.0	0.21	11/16/16 08:42	
Chloroethane	ug/L	ND	1.0	0.15	11/16/16 08:42	
Chloroform	ug/L	ND	1.0	0.14	11/16/16 08:42	
Chloromethane	ug/L	ND	1.0	0.080	11/16/16 08:42	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.080	11/16/16 08:42	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.14	11/16/16 08:42	
Dibromochloromethane	ug/L	ND	1.0	0.21	11/16/16 08:42	
Ethylbenzene	ug/L	ND	1.0	0.18	11/16/16 08:42	
Methylene chloride	ug/L	ND	1.0	0.15	11/16/16 08:42	
Styrene	ug/L	ND	1.0	0.12	11/16/16 08:42	
Tetrachloroethene	ug/L	ND	1.0	0.10	11/16/16 08:42	
Toluene	ug/L	ND	1.0	0.17	11/16/16 08:42	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.20	11/16/16 08:42	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.12	11/16/16 08:42	
Trichloroethene	ug/L	ND	1.0	0.17	11/16/16 08:42	
Vinyl chloride	ug/L	ND	1.0	0.13	11/16/16 08:42	
Xylene (Total)	ug/L	ND	3.0	0.42	11/16/16 08:42	
1,2-Dichloroethane-d4 (S)	%	99	81-127		11/16/16 08:42	
4-Bromofluorobenzene (S)	%	97	77-130		11/16/16 08:42	
Toluene-d8 (S)	%	91	80-120		11/16/16 08:42	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231925

LABORATORY CONTROL SAMPLE: 1863068

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	20.0	100	81-116	
1,1,2,2-Tetrachloroethane	ug/L	20	24.6	123	72-117	L0
1,1,2-Trichloroethane	ug/L	20	21.7	108	79-108	
1,1-Dichloroethane	ug/L	20	18.7	94	83-117	
1,1-Dichloroethene	ug/L	20	18.0	90	74-114	
1,2-Dichloroethane	ug/L	20	20.6	103	72-116	
1,2-Dichloropropane	ug/L	20	22.2	111	80-120	
2-Butanone (MEK)	ug/L	100	92.7	93	67-129	
2-Hexanone	ug/L	100	102	102	70-128	
4-Methyl-2-pentanone (MIBK)	ug/L	100	101	101	80-120	
Acetone	ug/L	100	87.1	87	56-142	
Benzene	ug/L	20	21.6	108	79-116	
Bromodichloromethane	ug/L	20	21.3	107	80-120	
Bromoform	ug/L	20	23.3	116	73-114	L0
Bromomethane	ug/L	20	18.7	94	49-153	
Carbon disulfide	ug/L	20	18.1	90	82-121	
Carbon tetrachloride	ug/L	20	19.2	96	80-116	
Chlorobenzene	ug/L	20	21.0	105	80-120	
Chloroethane	ug/L	20	18.5	92	67-124	
Chloroform	ug/L	20	19.2	96	79-120	
Chloromethane	ug/L	20	14.7	74	10-192	
cis-1,2-Dichloroethene	ug/L	20	18.5	93	80-120	
cis-1,3-Dichloropropene	ug/L	20	21.2	106	80-120	
Dibromochloromethane	ug/L	20	22.8	114	80-120	
Ethylbenzene	ug/L	20	21.3	107	80-120	
Methylene chloride	ug/L	20	16.4	82	80-120	
Styrene	ug/L	20	21.6	108	80-120	
Tetrachloroethene	ug/L	20	21.4	107	80-120	
Toluene	ug/L	20	21.0	105	80-120	
trans-1,2-Dichloroethene	ug/L	20	18.5	93	78-108	
trans-1,3-Dichloropropene	ug/L	20	21.7	109	85-120	
Trichloroethene	ug/L	20	20.5	102	76-114	
Vinyl chloride	ug/L	20	16.6	83	69-129	
Xylene (Total)	ug/L	60	63.0	105	80-120	
1,2-Dichloroethane-d4 (S)	%			97	81-127	
4-Bromofluorobenzene (S)	%			108	77-130	
Toluene-d8 (S)	%			96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1863069 1863070

Parameter	Units	60231848025 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	21.4	24.7	107	123	70-135	14	12	R1
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	19.4	21.0	97	105	54-136	8	15	
1,1,2-Trichloroethane	ug/L	ND	20	20	20.3	20.2	101	101	70-113	0	15	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231925

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1863069 1863070

Parameter	Units	60231848025 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethane	ug/L	ND	20	20	19.6	21.8	98	109	80-122	11	13	
1,1-Dichloroethene	ug/L	0.48J	20	20	20.6	22.3	101	109	73-118	8	14	
1,2-Dichloroethane	ug/L	ND	20	20	20.0	21.4	100	107	54-137	7	41	
1,2-Dichloropropane	ug/L	ND	20	20	20.8	21.2	104	106	77-116	2	12	
2-Butanone (MEK)	ug/L	ND	100	100	77.2	96.9	77	97	30-127	23	18	R1
2-Hexanone	ug/L	ND	100	100	91.5	99.2	91	99	44-124	8	18	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	100	81.2	95.9	81	96	70-124	17	15	R1
Acetone	ug/L	ND	100	100	72.2	94.1	70	92	10-132	26	20	R1
Benzene	ug/L	ND	20	20	22.4	22.2	112	111	37-151	1	40	
Bromodichloromethane	ug/L	ND	20	20	20.7	21.9	103	110	76-118	6	11	
Bromoform	ug/L	ND	20	20	20.0	20.4	100	102	64-113	2	15	
Bromomethane	ug/L	ND	20	20	15.0	19.3	75	97	41-154	25	43	
Carbon disulfide	ug/L	ND	20	20	19.3	21.5	96	108	80-139	11	17	
Carbon tetrachloride	ug/L	ND	20	20	20.5	22.5	103	112	75-127	9	13	
Chlorobenzene	ug/L	ND	20	20	21.0	20.7	105	103	79-113	2	13	
Chloroethane	ug/L	ND	20	20	20.1	21.7	101	109	53-154	8	20	
Chloroform	ug/L	0.36J	20	20	19.8	22.1	97	109	74-115	11	12	
Chloromethane	ug/L	ND	20	20	14.6	19.3	73	97	33-169	28	72	
cis-1,2-Dichloroethene	ug/L	73.0	20	20	86.0	101	65	140	58-139	16	40	M1
cis-1,3-Dichloropropene	ug/L	ND	20	20	17.1	18.8	85	94	70-120	10	14	
Dibromochloromethane	ug/L	ND	20	20	20.7	22.9	103	115	77-114	10	13	M1
Ethylbenzene	ug/L	ND	20	20	22.0	21.0	110	105	29-151	4	45	
Methylene chloride	ug/L	0.24J	20	20	16.7	19.0	82	94	76-120	13	13	
Styrene	ug/L	ND	20	20	19.8	19.5	99	97	66-127	2	15	
Tetrachloroethene	ug/L	ND	20	20	21.6	22.7	108	113	77-118	5	14	
Toluene	ug/L	ND	20	20	20.2	20.3	101	102	37-147	0	43	
trans-1,2-Dichloroethene	ug/L	0.88J	20	20	20.2	22.3	96	107	69-125	10	16	
trans-1,3-Dichloropropene	ug/L	ND	20	20	18.2	18.5	91	93	71-118	2	13	
Trichloroethene	ug/L	249	20	20	277	287	140	188	71-116	3	14	M1
Vinyl chloride	ug/L	0.17J	20	20	17.9	20.9	89	103	65-142	15	22	
Xylene (Total)	ug/L	ND	60	60	65.4	62.7	109	104	27-156	4	46	
1,2-Dichloroethane-d4 (S)	%						96	104	81-127			
4-Bromofluorobenzene (S)	%						97	101	77-130			
Toluene-d8 (S)	%						95	92	80-120			
Preservation pH		1.0			1.0	1.0				0		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1863071 1863072

Parameter	Units	60231925008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	20.7	21.9	104	109	70-135	5	12	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	18.9	22.5	95	113	54-136	17	15	R1
1,1,2-Trichloroethane	ug/L	ND	20	20	20.7	20.5	103	102	70-113	1	15	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231925

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1863071 1863072

Parameter	Units	60231925008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethane	ug/L	ND	20	20	19.4	20.3	97	101	80-122	5	13	
1,1-Dichloroethene	ug/L	ND	20	20	19.3	21.4	97	107	73-118	10	14	
1,2-Dichloroethane	ug/L	ND	20	20	19.2	20.3	96	102	54-137	6	41	
1,2-Dichloropropane	ug/L	ND	20	20	19.3	20.6	96	103	77-116	7	12	
2-Butanone (MEK)	ug/L	ND	100	100	77.0	88.9	77	89	30-127	14	18	
2-Hexanone	ug/L	ND	100	100	89.5	93.9	90	94	44-124	5	18	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	100	78.4	90.2	78	90	70-124	14	15	
Acetone	ug/L	2.1J	100	100	78.9	84.2	77	82	10-132	6	20	
Benzene	ug/L	ND	20	20	22.0	21.8	110	109	37-151	1	40	
Bromodichloromethane	ug/L	ND	20	20	18.4	20.5	92	102	76-118	11	11	
Bromoform	ug/L	ND	20	20	20.9	21.8	104	109	64-113	4	15	
Bromomethane	ug/L	ND	20	20	17.5	19.4	87	97	41-154	10	43	
Carbon disulfide	ug/L	ND	20	20	19.6	20.2	98	101	80-139	3	17	
Carbon tetrachloride	ug/L	ND	20	20	20.5	22.1	102	110	75-127	8	13	
Chlorobenzene	ug/L	ND	20	20	21.1	21.2	106	106	79-113	0	13	
Chloroethane	ug/L	ND	20	20	21.0	20.6	105	103	53-154	2	20	
Chloroform	ug/L	ND	20	20	19.1	19.7	95	99	74-115	3	12	
Chloromethane	ug/L	ND	20	20	21.5	16.3	108	81	33-169	28	72	
cis-1,2-Dichloroethene	ug/L	ND	20	20	18.5	20.1	93	100	58-139	8	40	
cis-1,3-Dichloropropene	ug/L	ND	20	20	16.3	18.6	82	93	70-120	13	14	
Dibromochloromethane	ug/L	ND	20	20	21.3	21.3	106	107	77-114	0	13	
Ethylbenzene	ug/L	ND	20	20	22.5	21.8	113	109	29-151	3	45	
Methylene chloride	ug/L	ND	20	20	18.0	18.4	90	92	76-120	2	13	
Styrene	ug/L	ND	20	20	21.7	21.6	109	108	66-127	0	15	
Tetrachloroethene	ug/L	ND	20	20	23.0	21.4	115	107	77-118	7	14	
Toluene	ug/L	ND	20	20	20.4	20.2	102	101	37-147	1	43	
trans-1,2-Dichloroethene	ug/L	ND	20	20	18.9	20.3	94	101	69-125	7	16	
trans-1,3-Dichloropropene	ug/L	ND	20	20	18.2	18.7	91	93	71-118	2	13	
Trichloroethene	ug/L	ND	20	20	22.6	21.8	113	109	71-116	3	14	
Vinyl chloride	ug/L	ND	20	20	19.8	19.8	99	99	65-142	0	22	
Xylene (Total)	ug/L	ND	60	60	66.1	69.5	110	116	27-156	5	46	
1,2-Dichloroethane-d4 (S)	%						94	98	81-127			
4-Bromofluorobenzene (S)	%						99	109	77-130			
Toluene-d8 (S)	%						95	94	80-120			
Preservation pH		1.0			1.0	1.0				0		

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231925

QC Batch: 454974 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60231925016, 60231925017, 60231925018, 60231925020, 60231925021, 60231925023, 60231925025, 60231925026, 60231925027, 60231925028, 60231925029, 60231925030, 60231925031, 60231925032, 60231925033

METHOD BLANK: 1863096 Matrix: Water
Associated Lab Samples: 60231925016, 60231925017, 60231925018, 60231925020, 60231925021, 60231925023, 60231925025, 60231925026, 60231925027, 60231925028, 60231925029, 60231925030, 60231925031, 60231925032, 60231925033

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	0.11	11/16/16 15:29	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.15	11/16/16 15:29	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.20	11/16/16 15:29	
1,1-Dichloroethane	ug/L	ND	1.0	0.050	11/16/16 15:29	
1,1-Dichloroethene	ug/L	ND	1.0	0.20	11/16/16 15:29	
1,2-Dichloroethane	ug/L	ND	1.0	0.12	11/16/16 15:29	
1,2-Dichloropropane	ug/L	ND	1.0	0.16	11/16/16 15:29	
2-Butanone (MEK)	ug/L	ND	10.0	0.59	11/16/16 15:29	
2-Hexanone	ug/L	ND	10.0	1.2	11/16/16 15:29	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	0.42	11/16/16 15:29	
Acetone	ug/L	ND	10.0	1.9	11/16/16 15:29	
Benzene	ug/L	ND	1.0	0.060	11/16/16 15:29	
Bromodichloromethane	ug/L	ND	1.0	0.19	11/16/16 15:29	
Bromoform	ug/L	ND	1.0	0.070	11/16/16 15:29	
Bromomethane	ug/L	ND	5.0	0.16	11/16/16 15:29	
Carbon disulfide	ug/L	ND	5.0	0.12	11/16/16 15:29	
Carbon tetrachloride	ug/L	ND	1.0	0.18	11/16/16 15:29	
Chlorobenzene	ug/L	ND	1.0	0.21	11/16/16 15:29	
Chloroethane	ug/L	ND	1.0	0.15	11/16/16 15:29	
Chloroform	ug/L	ND	1.0	0.14	11/16/16 15:29	
Chloromethane	ug/L	ND	1.0	0.080	11/16/16 15:29	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.080	11/16/16 15:29	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.14	11/16/16 15:29	
Dibromochloromethane	ug/L	ND	1.0	0.21	11/16/16 15:29	
Ethylbenzene	ug/L	ND	1.0	0.18	11/16/16 15:29	
Methylene chloride	ug/L	ND	1.0	0.15	11/16/16 15:29	
Styrene	ug/L	ND	1.0	0.12	11/16/16 15:29	
Tetrachloroethene	ug/L	ND	1.0	0.10	11/16/16 15:29	
Toluene	ug/L	ND	1.0	0.17	11/16/16 15:29	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.20	11/16/16 15:29	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.12	11/16/16 15:29	
Trichloroethene	ug/L	ND	1.0	0.17	11/16/16 15:29	
Vinyl chloride	ug/L	ND	1.0	0.13	11/16/16 15:29	
Xylene (Total)	ug/L	ND	3.0	0.42	11/16/16 15:29	
1,2-Dichloroethane-d4 (S)	%	104	81-127		11/16/16 15:29	
4-Bromofluorobenzene (S)	%	100	77-130		11/16/16 15:29	
Toluene-d8 (S)	%	101	80-120		11/16/16 15:29	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231925

LABORATORY CONTROL SAMPLE: 1863097

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	22.3	112	81-116	
1,1,2,2-Tetrachloroethane	ug/L	20	20.0	100	72-117	
1,1,2-Trichloroethane	ug/L	20	21.8	109	79-108	L0
1,1-Dichloroethane	ug/L	20	21.4	107	83-117	
1,1-Dichloroethene	ug/L	20	20.4	102	74-114	
1,2-Dichloroethane	ug/L	20	22.2	111	72-116	
1,2-Dichloropropane	ug/L	20	21.1	105	80-120	
2-Butanone (MEK)	ug/L	100	99.0	99	67-129	
2-Hexanone	ug/L	100	106	106	70-128	
4-Methyl-2-pentanone (MIBK)	ug/L	100	102	102	80-120	
Acetone	ug/L	100	95.4	95	56-142	
Benzene	ug/L	20	21.7	108	79-116	
Bromodichloromethane	ug/L	20	22.1	111	80-120	
Bromoform	ug/L	20	22.5	112	73-114	
Bromomethane	ug/L	20	17.3	86	49-153	
Carbon disulfide	ug/L	20	19.2	96	82-121	
Carbon tetrachloride	ug/L	20	20.7	104	80-116	
Chlorobenzene	ug/L	20	21.8	109	80-120	
Chloroethane	ug/L	20	19.9	99	67-124	
Chloroform	ug/L	20	21.8	109	79-120	
Chloromethane	ug/L	20	14.2	71	10-192	
cis-1,2-Dichloroethene	ug/L	20	19.8	99	80-120	
cis-1,3-Dichloropropene	ug/L	20	19.9	100	80-120	
Dibromochloromethane	ug/L	20	22.7	114	80-120	
Ethylbenzene	ug/L	20	22.3	111	80-120	
Methylene chloride	ug/L	20	18.6	93	80-120	
Styrene	ug/L	20	22.4	112	80-120	
Tetrachloroethene	ug/L	20	21.8	109	80-120	
Toluene	ug/L	20	21.0	105	80-120	
trans-1,2-Dichloroethene	ug/L	20	19.8	99	78-108	
trans-1,3-Dichloropropene	ug/L	20	20.9	105	85-120	
Trichloroethene	ug/L	20	22.2	111	76-114	
Vinyl chloride	ug/L	20	17.8	89	69-129	
Xylene (Total)	ug/L	60	66.5	111	80-120	
1,2-Dichloroethane-d4 (S)	%			96	81-127	
4-Bromofluorobenzene (S)	%			95	77-130	
Toluene-d8 (S)	%			98	80-120	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231925

QC Batch: 455400 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60231925003, 60231925004, 60231925009, 60231925027, 60231925028

METHOD BLANK: 1864631 Matrix: Water
Associated Lab Samples: 60231925003, 60231925004, 60231925009, 60231925027, 60231925028

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	0.11	11/17/16 09:25	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.15	11/17/16 09:25	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.20	11/17/16 09:25	
1,1-Dichloroethane	ug/L	ND	1.0	0.050	11/17/16 09:25	
1,1-Dichloroethene	ug/L	ND	1.0	0.20	11/17/16 09:25	
1,2-Dichloroethane	ug/L	ND	1.0	0.12	11/17/16 09:25	
1,2-Dichloropropane	ug/L	ND	1.0	0.16	11/17/16 09:25	
2-Butanone (MEK)	ug/L	ND	10.0	0.59	11/17/16 09:25	
2-Hexanone	ug/L	ND	10.0	1.2	11/17/16 09:25	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	0.42	11/17/16 09:25	
Acetone	ug/L	ND	10.0	1.9	11/17/16 09:25	
Benzene	ug/L	ND	1.0	0.060	11/17/16 09:25	
Bromodichloromethane	ug/L	ND	1.0	0.19	11/17/16 09:25	
Bromoform	ug/L	ND	1.0	0.070	11/17/16 09:25	
Bromomethane	ug/L	ND	5.0	0.16	11/17/16 09:25	
Carbon disulfide	ug/L	ND	5.0	0.12	11/17/16 09:25	
Carbon tetrachloride	ug/L	ND	1.0	0.18	11/17/16 09:25	
Chlorobenzene	ug/L	ND	1.0	0.21	11/17/16 09:25	
Chloroethane	ug/L	ND	1.0	0.15	11/17/16 09:25	
Chloroform	ug/L	ND	1.0	0.14	11/17/16 09:25	
Chloromethane	ug/L	0.40J	1.0	0.080	11/17/16 09:25	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.080	11/17/16 09:25	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.14	11/17/16 09:25	
Dibromochloromethane	ug/L	ND	1.0	0.21	11/17/16 09:25	
Ethylbenzene	ug/L	ND	1.0	0.18	11/17/16 09:25	
Methylene chloride	ug/L	ND	1.0	0.15	11/17/16 09:25	
Styrene	ug/L	ND	1.0	0.12	11/17/16 09:25	
Tetrachloroethene	ug/L	ND	1.0	0.10	11/17/16 09:25	
Toluene	ug/L	ND	1.0	0.17	11/17/16 09:25	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.20	11/17/16 09:25	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.12	11/17/16 09:25	
Trichloroethene	ug/L	ND	1.0	0.17	11/17/16 09:25	
Vinyl chloride	ug/L	ND	1.0	0.13	11/17/16 09:25	
Xylene (Total)	ug/L	ND	3.0	0.42	11/17/16 09:25	
1,2-Dichloroethane-d4 (S)	%	98	81-127		11/17/16 09:25	
4-Bromofluorobenzene (S)	%	103	77-130		11/17/16 09:25	
Toluene-d8 (S)	%	88	80-120		11/17/16 09:25	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231925

LABORATORY CONTROL SAMPLE: 1864633

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	23.8	119	81-116	L0
1,1,2,2-Tetrachloroethane	ug/L	20	22.5	113	72-117	
1,1,2-Trichloroethane	ug/L	20	19.9	100	79-108	
1,1-Dichloroethane	ug/L	20	20.8	104	83-117	
1,1-Dichloroethene	ug/L	20	19.9	100	74-114	
1,2-Dichloroethane	ug/L	20	21.5	108	72-116	
1,2-Dichloropropane	ug/L	20	20.2	101	80-120	
2-Butanone (MEK)	ug/L	100	101	101	67-129	
2-Hexanone	ug/L	100	100	100	70-128	
4-Methyl-2-pentanone (MIBK)	ug/L	100	98.7	99	80-120	
Acetone	ug/L	100	93.7	94	56-142	
Benzene	ug/L	20	23.0	115	79-116	
Bromodichloromethane	ug/L	20	20.9	104	80-120	
Bromoform	ug/L	20	20.7	103	73-114	
Bromomethane	ug/L	20	17.0	85	49-153	
Carbon disulfide	ug/L	20	19.7	98	82-121	
Carbon tetrachloride	ug/L	20	22.5	112	80-116	
Chlorobenzene	ug/L	20	21.4	107	80-120	
Chloroethane	ug/L	20	19.6	98	67-124	
Chloroform	ug/L	20	21.3	107	79-120	
Chloromethane	ug/L	20	13.2	66	10-192	
cis-1,2-Dichloroethene	ug/L	20	22.2	111	80-120	
cis-1,3-Dichloropropene	ug/L	20	20.6	103	80-120	
Dibromochloromethane	ug/L	20	21.7	108	80-120	
Ethylbenzene	ug/L	20	21.9	110	80-120	
Methylene chloride	ug/L	20	18.3	91	80-120	
Styrene	ug/L	20	21.3	107	80-120	
Tetrachloroethene	ug/L	20	20.0	100	80-120	
Toluene	ug/L	20	20.2	101	80-120	
trans-1,2-Dichloroethene	ug/L	20	20.4	102	78-108	
trans-1,3-Dichloropropene	ug/L	20	19.2	96	85-120	
Trichloroethene	ug/L	20	20.6	103	76-114	
Vinyl chloride	ug/L	20	20.1	100	69-129	
Xylene (Total)	ug/L	60	64.8	108	80-120	
1,2-Dichloroethane-d4 (S)	%			104	81-127	
4-Bromofluorobenzene (S)	%			103	77-130	
Toluene-d8 (S)	%			85	80-120	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231925

QC Batch: 456164 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60231925002, 60231925005, 60231925023

METHOD BLANK: 1867763 Matrix: Water
Associated Lab Samples: 60231925002, 60231925005, 60231925023

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	0.11	11/22/16 19:15	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.15	11/22/16 19:15	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.20	11/22/16 19:15	
1,1-Dichloroethane	ug/L	ND	1.0	0.050	11/22/16 19:15	
1,1-Dichloroethene	ug/L	ND	1.0	0.20	11/22/16 19:15	
1,2-Dichloroethane	ug/L	ND	1.0	0.12	11/22/16 19:15	
1,2-Dichloropropane	ug/L	ND	1.0	0.16	11/22/16 19:15	
2-Butanone (MEK)	ug/L	ND	10.0	0.59	11/22/16 19:15	
2-Hexanone	ug/L	ND	10.0	1.2	11/22/16 19:15	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	0.42	11/22/16 19:15	
Acetone	ug/L	ND	10.0	1.9	11/22/16 19:15	
Benzene	ug/L	ND	1.0	0.060	11/22/16 19:15	
Bromodichloromethane	ug/L	ND	1.0	0.19	11/22/16 19:15	
Bromoform	ug/L	ND	1.0	0.070	11/22/16 19:15	
Bromomethane	ug/L	ND	5.0	0.16	11/22/16 19:15	
Carbon disulfide	ug/L	ND	5.0	0.12	11/22/16 19:15	
Carbon tetrachloride	ug/L	ND	1.0	0.18	11/22/16 19:15	
Chlorobenzene	ug/L	ND	1.0	0.21	11/22/16 19:15	
Chloroethane	ug/L	ND	1.0	0.15	11/22/16 19:15	
Chloroform	ug/L	ND	1.0	0.14	11/22/16 19:15	
Chloromethane	ug/L	ND	1.0	0.080	11/22/16 19:15	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.080	11/22/16 19:15	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.14	11/22/16 19:15	
Dibromochloromethane	ug/L	ND	1.0	0.21	11/22/16 19:15	
Ethylbenzene	ug/L	ND	1.0	0.18	11/22/16 19:15	
Methylene chloride	ug/L	0.32J	1.0	0.15	11/22/16 19:15	
Styrene	ug/L	ND	1.0	0.12	11/22/16 19:15	
Tetrachloroethene	ug/L	ND	1.0	0.10	11/22/16 19:15	
Toluene	ug/L	ND	1.0	0.17	11/22/16 19:15	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.20	11/22/16 19:15	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.12	11/22/16 19:15	
Vinyl chloride	ug/L	ND	1.0	0.13	11/22/16 19:15	
Xylene (Total)	ug/L	ND	3.0	0.42	11/22/16 19:15	
1,2-Dichloroethane-d4 (S)	%	108	81-127		11/22/16 19:15	
4-Bromofluorobenzene (S)	%	107	77-130		11/22/16 19:15	
Toluene-d8 (S)	%	98	80-120		11/22/16 19:15	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231925

LABORATORY CONTROL SAMPLE: 1867764

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	20.4	102	81-116	
1,1,2,2-Tetrachloroethane	ug/L	20	20.1	100	72-117	
1,1,2-Trichloroethane	ug/L	20	18.5	93	79-108	
1,1-Dichloroethane	ug/L	20	20.9	105	83-117	
1,1-Dichloroethene	ug/L	20	18.5	93	74-114	
1,2-Dichloroethane	ug/L	20	21.4	107	72-116	
1,2-Dichloropropane	ug/L	20	20.3	102	80-120	
2-Butanone (MEK)	ug/L	100	101	101	67-129	
2-Hexanone	ug/L	100	97.2	97	70-128	
4-Methyl-2-pentanone (MIBK)	ug/L	100	103	103	80-120	
Acetone	ug/L	100	84.7	85	56-142	
Benzene	ug/L	20	19.4	97	79-116	
Bromodichloromethane	ug/L	20	19.9	100	80-120	
Bromoform	ug/L	20	19.4	97	73-114	
Bromomethane	ug/L	20	28.1	140	49-153	
Carbon disulfide	ug/L	20	19.3	96	82-121	
Carbon tetrachloride	ug/L	20	20.0	100	80-116	
Chlorobenzene	ug/L	20	18.2	91	80-120	
Chloroethane	ug/L	20	20.9	105	67-124	
Chloroform	ug/L	20	19.2	96	79-120	
Chloromethane	ug/L	20	33.5	167	10-192	
cis-1,2-Dichloroethene	ug/L	20	19.6	98	80-120	
cis-1,3-Dichloropropene	ug/L	20	19.9	100	80-120	
Dibromochloromethane	ug/L	20	19.2	96	80-120	
Ethylbenzene	ug/L	20	17.7	88	80-120	
Methylene chloride	ug/L	20	22.1	111	80-120	
Styrene	ug/L	20	19.2	96	80-120	
Tetrachloroethene	ug/L	20	17.9	90	80-120	
Toluene	ug/L	20	18.0	90	80-120	
trans-1,2-Dichloroethene	ug/L	20	20.0	100	78-108	
trans-1,3-Dichloropropene	ug/L	20	21.3	106	85-120	
Vinyl chloride	ug/L	20	26.0	130	69-129	L0
Xylene (Total)	ug/L	60	55.6	93	80-120	
1,2-Dichloroethane-d4 (S)	%			108	81-127	
4-Bromofluorobenzene (S)	%			105	77-130	
Toluene-d8 (S)	%			98	80-120	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231925

QC Batch: 454708 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 7 day
Associated Lab Samples: 60231925011, 60231925012, 60231925019, 60231925022, 60231925024

METHOD BLANK: 1862328 Matrix: Water
Associated Lab Samples: 60231925011, 60231925012, 60231925019, 60231925022, 60231925024

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	0.11	11/14/16 08:27	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.15	11/14/16 08:27	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.20	11/14/16 08:27	
1,1-Dichloroethane	ug/L	ND	1.0	0.050	11/14/16 08:27	
1,1-Dichloroethene	ug/L	ND	1.0	0.20	11/14/16 08:27	
1,2-Dichloroethane	ug/L	ND	1.0	0.12	11/14/16 08:27	
1,2-Dichloropropane	ug/L	ND	1.0	0.16	11/14/16 08:27	
2-Butanone (MEK)	ug/L	ND	10.0	0.59	11/14/16 08:27	
2-Hexanone	ug/L	ND	10.0	1.2	11/14/16 08:27	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	0.42	11/14/16 08:27	
Acetone	ug/L	ND	10.0	1.9	11/14/16 08:27	
Benzene	ug/L	ND	1.0	0.060	11/14/16 08:27	
Bromodichloromethane	ug/L	ND	1.0	0.19	11/14/16 08:27	
Bromoform	ug/L	ND	1.0	0.070	11/14/16 08:27	
Bromomethane	ug/L	ND	5.0	0.16	11/14/16 08:27	
Carbon disulfide	ug/L	ND	5.0	0.12	11/14/16 08:27	
Carbon tetrachloride	ug/L	ND	1.0	0.18	11/14/16 08:27	
Chlorobenzene	ug/L	ND	1.0	0.21	11/14/16 08:27	
Chloroethane	ug/L	ND	1.0	0.15	11/14/16 08:27	
Chloroform	ug/L	ND	1.0	0.14	11/14/16 08:27	
Chloromethane	ug/L	ND	1.0	0.080	11/14/16 08:27	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.080	11/14/16 08:27	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.14	11/14/16 08:27	
Dibromochloromethane	ug/L	ND	1.0	0.21	11/14/16 08:27	
Ethylbenzene	ug/L	ND	1.0	0.18	11/14/16 08:27	
Methylene chloride	ug/L	ND	1.0	0.15	11/14/16 08:27	
Styrene	ug/L	ND	1.0	0.12	11/14/16 08:27	
Tetrachloroethene	ug/L	ND	1.0	0.10	11/14/16 08:27	
Toluene	ug/L	ND	1.0	0.17	11/14/16 08:27	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.20	11/14/16 08:27	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.12	11/14/16 08:27	
Trichloroethene	ug/L	ND	1.0	0.17	11/14/16 08:27	
Vinyl chloride	ug/L	ND	1.0	0.13	11/14/16 08:27	
Xylene (Total)	ug/L	ND	3.0	0.42	11/14/16 08:27	
1,2-Dichloroethane-d4 (S)	%	99	81-127		11/14/16 08:27	
4-Bromofluorobenzene (S)	%	104	77-130		11/14/16 08:27	
Toluene-d8 (S)	%	99	80-120		11/14/16 08:27	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231925

LABORATORY CONTROL SAMPLE: 1862329

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	22.0	110	81-116	
1,1,2,2-Tetrachloroethane	ug/L	20	21.5	108	72-117	
1,1,2-Trichloroethane	ug/L	20	20.6	103	79-108	
1,1-Dichloroethane	ug/L	20	20.6	103	83-117	
1,1-Dichloroethene	ug/L	20	21.2	106	74-114	
1,2-Dichloroethane	ug/L	20	20.9	104	72-116	
1,2-Dichloropropane	ug/L	20	21.8	109	80-120	
2-Butanone (MEK)	ug/L	100	96.7	97	67-129	
2-Hexanone	ug/L	100	104	104	70-128	
4-Methyl-2-pentanone (MIBK)	ug/L	100	101	101	80-120	
Acetone	ug/L	100	95.5	96	56-142	
Benzene	ug/L	20	21.7	108	79-116	
Bromodichloromethane	ug/L	20	21.8	109	80-120	
Bromoform	ug/L	20	20.9	105	73-114	
Bromomethane	ug/L	20	17.0	85	49-153	
Carbon disulfide	ug/L	20	20.6	103	82-121	
Carbon tetrachloride	ug/L	20	21.0	105	80-116	
Chlorobenzene	ug/L	20	20.8	104	80-120	
Chloroethane	ug/L	20	19.6	98	67-124	
Chloroform	ug/L	20	20.2	101	79-120	
Chloromethane	ug/L	20	14.8	74	10-192	
cis-1,2-Dichloroethene	ug/L	20	20.3	102	80-120	
cis-1,3-Dichloropropene	ug/L	20	20.9	105	80-120	
Dibromochloromethane	ug/L	20	22.2	111	80-120	
Ethylbenzene	ug/L	20	22.0	110	80-120	
Methylene chloride	ug/L	20	17.9	90	80-120	
Styrene	ug/L	20	21.3	107	80-120	
Tetrachloroethene	ug/L	20	21.7	108	80-120	
Toluene	ug/L	20	21.1	105	80-120	
trans-1,2-Dichloroethene	ug/L	20	20.7	104	78-108	
trans-1,3-Dichloropropene	ug/L	20	19.8	99	85-120	
Trichloroethene	ug/L	20	20.2	101	76-114	
Vinyl chloride	ug/L	20	20.9	104	69-129	
Xylene (Total)	ug/L	60	64.4	107	80-120	
1,2-Dichloroethane-d4 (S)	%			97	81-127	
4-Bromofluorobenzene (S)	%			101	77-130	
Toluene-d8 (S)	%			98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1862330 1862331

Parameter	Units	60232152007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	22.3	21.5	111	107	70-135	4	12	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	19.6	21.0	98	105	54-136	7	15	
1,1,2-Trichloroethane	ug/L	ND	20	20	19.0	19.5	95	98	70-113	3	15	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231925

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1862330 1862331

Parameter	Units	60232152007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethane	ug/L	ND	20	20	21.9	21.6	109	108	80-122	1	13	
1,1-Dichloroethene	ug/L	ND	20	20	21.6	21.6	108	108	73-118	0	14	
1,2-Dichloroethane	ug/L	4.8	20	20	23.9	24.8	96	100	54-137	4	41	
1,2-Dichloropropane	ug/L	ND	20	20	20.4	21.0	102	105	77-116	3	12	
2-Butanone (MEK)	ug/L	ND	100	100	86.1	89.4	86	89	30-127	4	18	
2-Hexanone	ug/L	ND	100	100	88.7	95.6	89	96	44-124	7	18	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	100	96.2	97.1	96	97	70-124	1	15	
Acetone	ug/L	ND	100	100	83.4	85.8	81	83	10-132	3	20	
Benzene	ug/L	ND	20	20	21.4	21.3	107	107	37-151	0	40	
Bromodichloromethane	ug/L	ND	20	20	21.0	20.8	105	104	76-118	1	11	
Bromoform	ug/L	ND	20	20	19.4	19.9	97	100	64-113	3	15	
Bromomethane	ug/L	ND	20	20	20.6	22.8	103	114	41-154	10	43	
Carbon disulfide	ug/L	ND	20	20	21.7	21.1	109	105	80-139	3	17	
Carbon tetrachloride	ug/L	ND	20	20	21.6	21.2	108	106	75-127	2	13	
Chlorobenzene	ug/L	ND	20	20	21.0	20.6	105	103	79-113	2	13	
Chloroethane	ug/L	ND	20	20	22.8	21.6	114	108	53-154	6	20	
Chloroform	ug/L	ND	20	20	20.0	20.6	100	103	74-115	3	12	
Chloromethane	ug/L	ND	20	20	28.6	19.4	143	97	33-169	39	72	
cis-1,2-Dichloroethene	ug/L	ND	20	20	21.1	21.7	101	104	58-139	3	40	
cis-1,3-Dichloropropene	ug/L	ND	20	20	20.2	20.4	101	102	70-120	1	14	
Dibromochloromethane	ug/L	ND	20	20	20.3	20.7	102	104	77-114	2	13	
Ethylbenzene	ug/L	ND	20	20	21.9	21.4	109	107	29-151	2	45	
Methylene chloride	ug/L	ND	20	20	18.8	18.5	94	92	76-120	2	13	
Styrene	ug/L	ND	20	20	21.9	21.1	110	105	66-127	4	15	
Tetrachloroethene	ug/L	ND	20	20	22.0	22.3	110	112	77-118	1	14	
Toluene	ug/L	ND	20	20	21.2	20.6	106	103	37-147	3	43	
trans-1,2-Dichloroethene	ug/L	ND	20	20	21.5	21.2	108	106	69-125	1	16	
trans-1,3-Dichloropropene	ug/L	ND	20	20	19.5	19.8	97	99	71-118	2	13	
Trichloroethene	ug/L	3.1	20	20	24.9	24.3	109	106	71-116	3	14	
Vinyl chloride	ug/L	ND	20	20	24.2	21.2	121	106	65-142	13	22	
Xylene (Total)	ug/L	ND	60	60	66.3	62.7	110	105	27-156	5	46	
1,2-Dichloroethane-d4 (S)	%						93	97	81-127			
4-Bromofluorobenzene (S)	%						98	99	77-130			
Toluene-d8 (S)	%						97	96	80-120			
Preservation pH		7.0			7.0	7.0				0		

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231925

QC Batch: 455032
QC Batch Method: EPA 5030B/8260
Analysis Method: EPA 5030B/8260
Analysis Description: 8260 MSV Water 7 day
Associated Lab Samples: 60231925024

METHOD BLANK: 1863375
Matrix: Water
Associated Lab Samples: 60231925024

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	0.11	11/15/16 13:34	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.15	11/15/16 13:34	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.20	11/15/16 13:34	
1,1-Dichloroethane	ug/L	ND	1.0	0.050	11/15/16 13:34	
1,1-Dichloroethene	ug/L	ND	1.0	0.20	11/15/16 13:34	
1,2-Dichloroethane	ug/L	ND	1.0	0.12	11/15/16 13:34	
1,2-Dichloropropane	ug/L	ND	1.0	0.16	11/15/16 13:34	
2-Butanone (MEK)	ug/L	ND	10.0	0.59	11/15/16 13:34	
2-Hexanone	ug/L	ND	10.0	1.2	11/15/16 13:34	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	0.42	11/15/16 13:34	
Acetone	ug/L	ND	10.0	1.9	11/15/16 13:34	
Benzene	ug/L	ND	1.0	0.060	11/15/16 13:34	
Bromodichloromethane	ug/L	ND	1.0	0.19	11/15/16 13:34	
Bromoform	ug/L	ND	1.0	0.070	11/15/16 13:34	
Bromomethane	ug/L	ND	5.0	0.16	11/15/16 13:34	
Carbon disulfide	ug/L	ND	5.0	0.12	11/15/16 13:34	
Carbon tetrachloride	ug/L	ND	1.0	0.18	11/15/16 13:34	
Chlorobenzene	ug/L	ND	1.0	0.21	11/15/16 13:34	
Chloroethane	ug/L	ND	1.0	0.15	11/15/16 13:34	
Chloroform	ug/L	ND	1.0	0.14	11/15/16 13:34	
Chloromethane	ug/L	ND	1.0	0.080	11/15/16 13:34	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.14	11/15/16 13:34	
Dibromochloromethane	ug/L	ND	1.0	0.21	11/15/16 13:34	
Ethylbenzene	ug/L	ND	1.0	0.18	11/15/16 13:34	
Methylene chloride	ug/L	0.25J	1.0	0.15	11/15/16 13:34	
Styrene	ug/L	ND	1.0	0.12	11/15/16 13:34	
Tetrachloroethene	ug/L	ND	1.0	0.10	11/15/16 13:34	
Toluene	ug/L	ND	1.0	0.17	11/15/16 13:34	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.20	11/15/16 13:34	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.12	11/15/16 13:34	
Xylene (Total)	ug/L	ND	3.0	0.42	11/15/16 13:34	
1,2-Dichloroethane-d4 (S)	%	102	81-127		11/15/16 13:34	
4-Bromofluorobenzene (S)	%	101	77-130		11/15/16 13:34	
Toluene-d8 (S)	%	101	80-120		11/15/16 13:34	

LABORATORY CONTROL SAMPLE: 1863376

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	19.2	96	81-116	
1,1,2,2-Tetrachloroethane	ug/L	20	18.9	94	72-117	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231925

LABORATORY CONTROL SAMPLE: 1863376

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,2-Trichloroethane	ug/L	20	17.9	90	79-108	
1,1-Dichloroethane	ug/L	20	19.7	99	83-117	
1,1-Dichloroethene	ug/L	20	19.3	97	74-114	
1,2-Dichloroethane	ug/L	20	19.1	96	72-116	
1,2-Dichloropropane	ug/L	20	19.8	99	80-120	
2-Butanone (MEK)	ug/L	100	94.3	94	67-129	
2-Hexanone	ug/L	100	91.1	91	70-128	
4-Methyl-2-pentanone (MIBK)	ug/L	100	96.7	97	80-120	
Acetone	ug/L	100	94.1	94	56-142	
Benzene	ug/L	20	18.9	95	79-116	
Bromodichloromethane	ug/L	20	19.4	97	80-120	
Bromoform	ug/L	20	19.3	96	73-114	
Bromomethane	ug/L	20	35.3	176	49-153	L0
Carbon disulfide	ug/L	20	22.1	111	82-121	
Carbon tetrachloride	ug/L	20	18.8	94	80-116	
Chlorobenzene	ug/L	20	18.0	90	80-120	
Chloroethane	ug/L	20	20.8	104	67-124	
Chloroform	ug/L	20	18.5	92	79-120	
Chloromethane	ug/L	20	26.8	134	10-192	
cis-1,3-Dichloropropene	ug/L	20	19.6	98	80-120	
Dibromochloromethane	ug/L	20	19.2	96	80-120	
Ethylbenzene	ug/L	20	17.5	87	80-120	
Methylene chloride	ug/L	20	21.3	106	80-120	
Styrene	ug/L	20	19.3	97	80-120	
Tetrachloroethene	ug/L	20	18.2	91	80-120	
Toluene	ug/L	20	18.2	91	80-120	
trans-1,2-Dichloroethene	ug/L	20	19.3	96	78-108	
trans-1,3-Dichloropropene	ug/L	20	19.7	98	85-120	
Xylene (Total)	ug/L	60	55.8	93	80-120	
1,2-Dichloroethane-d4 (S)	%			101	81-127	
4-Bromofluorobenzene (S)	%			99	77-130	
Toluene-d8 (S)	%			99	80-120	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231925

QC Batch: 454733 Analysis Method: SM 4500-S-2 D
QC Batch Method: SM 4500-S-2 D Analysis Description: 4500S2D Sulfide, Total
Associated Lab Samples: 60231925004, 60231925005, 60231925023, 60231925024, 60231925025

METHOD BLANK: 1862393 Matrix: Water
Associated Lab Samples: 60231925004, 60231925005, 60231925023, 60231925024, 60231925025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide, Total	mg/L	ND	0.050	0.019	11/14/16 12:08	

LABORATORY CONTROL SAMPLE: 1862394

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	.5	0.52	104	80-120	

MATRIX SPIKE SAMPLE: 1862395

Parameter	Units	60231848013 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	ND	.5	0.42	83	75-125	

SAMPLE DUPLICATE: 1862396

Parameter	Units	60231848025 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Total	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 1862397

Parameter	Units	60232095001 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Total	mg/L	ND	ND		20	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231925

QC Batch: 455751 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 60231925004, 60231925005, 60231925025

METHOD BLANK: 1866260 Matrix: Water
Associated Lab Samples: 60231925004, 60231925005, 60231925025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfate	mg/L	ND	1.0	0.15	11/19/16 08:41	

LABORATORY CONTROL SAMPLE: 1866261

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	5	5.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1866264 1866265

Parameter	Units	60232404001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	3120	1000	1000	4050	4130	92	100	80-120	2	15	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231925

QC Batch: 455803 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 60231925023, 60231925024

METHOD BLANK: 1866752 Matrix: Water
Associated Lab Samples: 60231925023, 60231925024

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfate	mg/L	ND	1.0	0.15	11/20/16 13:17	

LABORATORY CONTROL SAMPLE: 1866753

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	5	4.9	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1866754 1866755

Parameter	Units	60231954001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	649	250	250	939	951	116	121	80-120	1	15	M1

MATRIX SPIKE SAMPLE: 1866756

Parameter	Units	60231954002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	648	250	943	118	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231925

QC Batch: 454329 Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Associated Lab Samples: 60231925004, 60231925005, 60231925023, 60231925024, 60231925025

METHOD BLANK: 1860453 Matrix: Water
Associated Lab Samples: 60231925004, 60231925005, 60231925023, 60231925024, 60231925025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	0.012	11/10/16 15:59	
Nitrogen, Nitrite	mg/L	ND	0.10	0.010	11/10/16 15:59	
Nitrogen, NO2 plus NO3	mg/L	ND	0.10	0.012	11/10/16 15:59	

LABORATORY CONTROL SAMPLE: 1860454

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	101	85-115	
Nitrogen, Nitrite	mg/L	1	1.0	100	90-110	
Nitrogen, NO2 plus NO3	mg/L	2	2.0	101	90-110	

MATRIX SPIKE SAMPLE: 1860455

Parameter	Units	60231927001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	14.2	10	23.3	91	85-115	
Nitrogen, Nitrite	mg/L	ND	10	10.4	104	90-110	
Nitrogen, NO2 plus NO3	mg/L	14.2	20	33.7	97	90-110	

MATRIX SPIKE SAMPLE: 1860457

Parameter	Units	60231925024 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	0.54	1	1.6	101	85-115	
Nitrogen, Nitrite	mg/L	ND	1	1.1	113	90-110	M1
Nitrogen, NO2 plus NO3	mg/L	0.54	2	2.7	107	90-110	

SAMPLE DUPLICATE: 1860456

Parameter	Units	60231920001 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Nitrate	mg/L	<2.0	ND		20	
Nitrogen, Nitrite	mg/L	<2.0	ND		20	
Nitrogen, NO2 plus NO3	mg/L	<2.0	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231925

QC Batch: 454961 — Analysis Method: SM 5310C
QC Batch Method: SM 5310C — Analysis Description: 5310C Total Organic Carbon
Associated Lab Samples: 60231925004

METHOD BLANK: 1863050 — Matrix: Water
Associated Lab Samples: 60231925004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	0.063J	1.0	0.054	11/15/16 10:49	

LABORATORY CONTROL SAMPLE: 1863051

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	5	4.6	92	80-120	

MATRIX SPIKE SAMPLE: 1863053

Parameter	Units	60231848025 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	0.50J	5	4.9	89	80-120	

SAMPLE DUPLICATE: 1863052

Parameter	Units	60231810015 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Organic Carbon	mg/L	2740	2730	0	25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60231925

QC Batch: 455739 Analysis Method: SM 5310C
QC Batch Method: SM 5310C Analysis Description: 5310C Total Organic Carbon
Associated Lab Samples: 60231925005, 60231925023, 60231925024, 60231925025

METHOD BLANK: 1866224 Matrix: Water
Associated Lab Samples: 60231925005, 60231925023, 60231925024, 60231925025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	0.10J	1.0	0.054	11/19/16 09:15	

LABORATORY CONTROL SAMPLE: 1866225

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	5	4.5	90	80-120	

MATRIX SPIKE SAMPLE: 1866227

Parameter	Units	60232404003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	ND	5	5.2	92	80-120	

SAMPLE DUPLICATE: 1866226

Parameter	Units	60232404002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Organic Carbon	mg/L	2.4	2.5	2	25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALIFIERS

Project: FORT SMITH, AR
Pace Project No.: 60231925

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-K	Pace Analytical Services - Kansas City

BATCH QUALIFIERS

Batch: 454974

[M5]	A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: 455032

[M5]	A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: 455400

[M5]	A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: 456164

[M5]	A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
CC	The continuing calibration for this compound is outside of method control limits. The result is estimated.
L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L1	Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
L3	Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
R1	RPD value was outside control limits.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: FORT SMITH, AR
Pace Project No.: 60231925

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60231925004	**IW-73-201611**	EPA 3010	454539	EPA 6010	454595
60231925005	**MW-95-201611**	EPA 3010	454539	EPA 6010	454595
60231925023	**MW-86-201611**	EPA 3010	454539	EPA 6010	454595
60231925024	**MW-25-201611**	EPA 3010	454539	EPA 6010	454595
60231925025	**RW-69-201611**	EPA 3010	454539	EPA 6010	454595
60231925001	**MW-28-201611**	EPA 5030B/8260	454968		
60231925002	**MW-93-201611**	EPA 5030B/8260	454968		
60231925002	**MW-93-201611**	EPA 5030B/8260	456164		
60231925003	**DUP-01-201611**	EPA 5030B/8260	455400		
60231925004	**IW-73-201611**	EPA 5030B/8260	455400		
60231925005	**MW-95-201611**	EPA 5030B/8260	454968		
60231925005	**MW-95-201611**	EPA 5030B/8260	456164		
60231925006	**EB-01-201611**	EPA 5030B/8260	454968		
60231925007	**ITMW-16-201611**	EPA 5030B/8260	454968		
60231925008	**MW-27-201611**	EPA 5030B/8260	454968		
60231925009	**MW-82-201611**	EPA 5030B/8260	454968		
60231925009	**MW-82-201611**	EPA 5030B/8260	455400		
60231925010	**ITMW-21-201611**	EPA 5030B/8260	454968		
60231925013	**MW-29-201611**	EPA 5030B/8260	454968		
60231925014	**MW-26-201611**	EPA 5030B/8260	454968		
60231925015	**ITMW-20-201611**	EPA 5030B/8260	454968		
60231925016	**ITMW-2-201611**	EPA 5030B/8260	454974		
60231925017	**MW-183-201611**	EPA 5030B/8260	454974		
60231925018	**MW-192-201611**	EPA 5030B/8260	454974		
60231925020	**TB-4-201611**	EPA 5030B/8260	454974		
60231925021	**TB-2-201611**	EPA 5030B/8260	454974		
60231925023	**MW-86-201611**	EPA 5030B/8260	454974		
60231925023	**MW-86-201611**	EPA 5030B/8260	456164		
60231925025	**RW-69-201611**	EPA 5030B/8260	454974		
60231925026	**MW-195-201611**	EPA 5030B/8260	454974		
60231925027	**DUP-02-201611**	EPA 5030B/8260	454974		
60231925027	**DUP-02-201611**	EPA 5030B/8260	455400		
60231925028	**MW-182-201611**	EPA 5030B/8260	454974		
60231925028	**MW-182-201611**	EPA 5030B/8260	455400		
60231925029	**MW-188-201611**	EPA 5030B/8260	454974		
60231925030	**MW-187-201611**	EPA 5030B/8260	454974		
60231925031	**MW-196-201611**	EPA 5030B/8260	454974		
60231925032	**EB-05-201611**	EPA 5030B/8260	454974		
60231925033	**EB-06-201611**	EPA 5030B/8260	454974		
60231925011	**ITMW-18-201611**	EPA 5030B/8260	454708		
60231925012	**ITMW-19-201611**	EPA 5030B/8260	454708		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: FORT SMITH, AR
Pace Project No.: 60231925

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60231925019	**MW-84-201611**	EPA 5030B/8260	454708		
60231925022	**MW-83-201611**	EPA 5030B/8260	454708		
60231925024	**MW-25-201611**	EPA 5030B/8260	454708		
60231925024	**MW-25-201611**	EPA 5030B/8260	455032		
60231925004	**IW-73-201611**	SM 4500-S-2 D	454733		
60231925005	**MW-95-201611**	SM 4500-S-2 D	454733		
60231925023	**MW-86-201611**	SM 4500-S-2 D	454733		
60231925024	**MW-25-201611**	SM 4500-S-2 D	454733		
60231925025	**RW-69-201611**	SM 4500-S-2 D	454733		
60231925004	**IW-73-201611**	EPA 300.0	455751		
60231925005	**MW-95-201611**	EPA 300.0	455751		
60231925023	**MW-86-201611**	EPA 300.0	455803		
60231925024	**MW-25-201611**	EPA 300.0	455803		
60231925025	**RW-69-201611**	EPA 300.0	455751		
60231925004	**IW-73-201611**	EPA 353.2	454329		
60231925005	**MW-95-201611**	EPA 353.2	454329		
60231925023	**MW-86-201611**	EPA 353.2	454329		
60231925024	**MW-25-201611**	EPA 353.2	454329		
60231925025	**RW-69-201611**	EPA 353.2	454329		
60231925004	**IW-73-201611**	SM 5310C	454961		
60231925005	**MW-95-201611**	SM 5310C	455739		
60231925023	**MW-86-201611**	SM 5310C	455739		
60231925024	**MW-25-201611**	SM 5310C	455739		
60231925025	**RW-69-201611**	SM 5310C	455739		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
www.pacelabs.com

Sample Condition Upon Receipt

WO# : 60231925

60231925

Client Name: Environ

Courier: FedEx ☐ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☐ Client ☑ Other ☐

Tracking #: _____ Pace Shipping Label Used? Yes ☐ No ☑

Custody Seal on Cooler/Box Present: Yes ☑ No ☐ Seals intact: Yes ☑ No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☑ Foam ☐ None ☐ Other ☐

Thermometer Used: (CF +0.7 / CF -0.5) T-266 / T-239 **Type of Ice:** (Wet) Blue None

Cooler Temperature (°C): **As-read** _____ **Corr. Factor** (CF +0.7 / CF -0.5) **Corrected** 0.3/0.4

Date and initials of person examining contents: pv 11/10/16

Temperature should be above freezing to 6°C

Chain of Custody present:	☑Yes ☐No ☐N/A	EB-06-201611 is listed
Chain of Custody relinquished:	☑Yes ☐No ☐N/A	twice on coc. page 2 and page 3
Samples arrived within holding time:	☑Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr): MW2/MW3	☑Yes ☐No ☐N/A	Container ID for MW-20-201611
Rush Turn Around Time requested:	☐Yes ☑No ☐N/A	is ITMW-20-201611.
Sufficient volume:	☑Yes ☐No ☐N/A	
Correct containers used:	☑Yes ☐No ☐N/A	
Pace containers used:	☑Yes ☐No ☐N/A	Receive with TB
Containers intact:	☑Yes ☐No ☐N/A	1/= TB2
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☑N/A	1111= TB4
Filtered volume received for dissolved tests?	☐Yes ☐No ☑N/A	
Sample labels match COC: Date / time / ID / analyses	☑Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: WT	☐Yes ☑No ☐N/A	
Containers requiring pH preservation in compliance? (HNO3, H2SO4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO)	☑Yes ☐No ☐N/A	
Cyanide water sample checks: ☑ N/A		
Lead acetate strip turns dark? (Record only)	☐Yes ☐No	
Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No	
Trip Blank present: cover	☑Yes ☐No ☐N/A	
Headspace in VOA vials (>6mm):	☐Yes ☑No ☐N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☑N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☑N/A	

Client Notification/ Resolution: Copy COC to Client? Y / (N) Field Data Required? Y / (N)

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: Ubc Date: 11/10/16

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Pace Analytical
www.pacelabs.com

Page: 1 of 3

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Environ	Report To:	Wendy Stonestreet	Attention:	Tammy Gleason
Address:	7500 College Blvd., Ste. 925	Copy To:	Tammy Gleason	Company Name:	Environ
	Overland Park, KS 66210			Address:	250 Monroe Ave. NW Grand Rapids
Email To:	wstonestreet@ramboll.com	Purchase Order No.:	NA	Pace Quote Reference:	Michigan, 49503
Phone:	913-553-5926 Fax:	Project Name:	Fort Smith, AR	Pace Project Manager:	Colleen Clyne
Requested Due Date/TAT:	STD	Project Number:	343500Q	Pace Profile #:	7444, line 1

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☑ OTHER ADEQ

Site Location STATE: AR

Requested Analysis Filtered (Y/N)

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other Ascorbic Acid	Analysis Test Y/N	8260 VOCs	Sulfide	TOC	Sulfate	Nitrate, nitrite, unpres	6010-Iron	Ferric Iron calc. (send field Ferrous)			Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-25-20160411	WT	G			4/9/16	1015		3				+						+										01
2	MW-93-20160411	WT	G			4/9/16	1530		3				+						+										02
3	Dup-01-20160411	WT	G			4/9/16	1126		3				+						+										03
4	TW-73-20160411	WT	G			4/9/16	1226		9	+	+	+	+	+	+				+								BP82		04
5	MW-95-20160411	WT	G		1405	4/9/16	1095		9	+	+	+	+	+	+				+										05
6	EB-01-20160411	WT	G			4/9/16	1620		3				+						+										06
7	ITMW-16-20160411	WT	G			4/9/16	1616		3				X						X										07
8	MW-27-20160411	WT	G			4/9/16	1440		3				X						X								6869H		08
9	MW-82-20160411	WT	G			4/9/16	0936		3				+						+										09
10	~~MW-82-20160411 MS/MSD~~ MW-27-20160411	WT	G			4/9/16	1440		3				+						+										10
11	ITMW-21-20160411	WT	G			4/9/16	1632		3				+						X										11
12	ITMW-15-20160411	WT	G			4/9/16	1305		3									+	X								3 OTHER		12

Pace Project No./ Lab I.D.: 60231925

1 3DAY H
2 3
3 3
4 9 — 1BB3U AG3S 2-0 BP3N 2-0
5 9
6 3
7 3
8 3
9 3
10 3
11 3
12 3 — 7 day hold

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Victoria Siegler RE	11/9/16	1800		11/10/16	0832	0.3 / 0.4

SAMPLE CONDITIONS: Temp in °C; Received on Ice (Y/N): Y, Y; Custody Sealed Cooler (Y/N): Y, Y; Samples Intact (Y/N): Y, Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Victoria Siegler

SIGNATURE of SAMPLER: Victoria Siegler

DATE Signed (MM/DD/YY): 11/9/16

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-Feb-2007

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Environ	Report To:	Wendy Stonestreet	Attention:	Tammy Gleason
Address:	7500 College Blvd., Ste. 925	Copy To:	Tammy Gleason	Company Name:	Environ
	Overland Park, KS 66210			Address:	250 Monroe Ave. NW Grand Rapids
Email To:	wstonestreet@ramboll.com	Purchase Order No.:	NA	Pace Quote Reference:	Michigan, 49503
Phone:	913-553-5926 Fax:	Project Name:	Fort Smith, AR	Pace Project Manager:	Colleen Clyne
Requested Due Date/TAT:		Project Number:		Pace Profile #:	7444, line 1

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☑ OTHER ADEQ

Site Location STATE: AR

Requested Analysis Filtered (Y/N)

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

SAMPLE ID (A-Z, 0-9 / , -) Sample IDs MUST BE UNIQUE

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other Ascorbic acid	Analysis Test Y/N	8260 VOCs	Sulfide	TOC	Sulfate	Nitrate, nitrite, unpres	6010-Iron	Ferric Iron calc. (send field Ferrous)		Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	ITMW-19-20160411	WT	G			11/9/16	1510		3								+		X								30THR		7 day hold	012
2	MW-29-20160411	WT	G			11/9/16	0920		3				X				X		X										3DGH	013
3	MW-26-20160411	WT	G			11/9/16	1300		3				X						X											014
4	MW-20-20160411	WT	G			11/9/16	1105		3				X						X											015
5	ITMW-2-20160411	WT	G			11/9/16	1125		3				X						+											016
6	MW-183-20160411	WT	G			11/9/16	0820		3				+						+											017
7	MW-192-20160411	WT	G			11/9/16	0935		3				+						+										↓	018
8	MW-34-20160411	WT	G			11/9/16	1224		3								+		+								3 DT HR		7 day hold	019
9	TB-4-20160411	WT	G			11/9/16	—		2				X						X										2DGH	020
10	TB-2-20160411	WT	G			11/9/16	—		2				X						X										↓	021
11	MW-33-20160411	WT	G			11/9/16	1422		3				VS				X		+								3 DT HR		7 day hold	022
12	EB-02-20160411	WT	G			11/9/16			3				+						X										—	—

6023925

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Victoria Siegfried RE	11/9/16	1800	[signature]	11/10/16	0832	003	Y	Y	Y
							014	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Victoria Siegfried

SIGNATURE of SAMPLER: Victoria Siegfried DATE Signed (MM/DD/YY): 11/9/16

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

CHAIN-OF-CUSTODY / Analytical Request Document

Pace Analytical
www.pacelabs.com

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:

Company:	Environ
Address:	7500 College Blvd., Ste. 925
	Overland Park, KS 66210
Email To:	wstonestreet@ramboll.com
Phone: 913-553-5926	Fax:
Requested Due Date/TAT:	

Section B Required Project Information:

Report To:	Wendy Stonestreet
Copy To:	Tammy Gleason
Purchase Order No.:	NA
Project Name:	Fort Smith, AR
Project Number:	

Section C Invoice Information:

Attention:	Tammy Gleason
Company Name:	Environ
Address:	250 Monroe Ave. NW Grand Rapids
Pace Quote Reference:	Michigan, 49503
Pace Project Manager:	Colleen Clyne
Pace Profile #:	7444, line 1

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☑ OTHER ADEQ

Site Location STATE: AR

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other Ascorbic Acid
1	MW-90-20116011	WT	G			11/9/16	1550		9	X	X	X	X	X			
2	MW-25-20116011	WT	G			11/9/16	1340		9	X	X	X		X			X
3	RW-69-20116011	WT	G			11/9/16	1025		9	X	X	X	X	X			
4	MW-195-20116011	WT	G			11/9/16	0945		3				X				
5	Dup-02-20116011	WT	G			11/9/16	1525		3				X				
6	MW-182-20116011	WT	G			11/9/16	1525		3				X				
7	MW-186-20116011	WT	G		1405	11/9/16	1405		3				X				
8	MW-187-20116011	WT	G			11/9/16	1245		3				X				
9	MW-190-20116011	WT	G			11/9/16	1115		3				X				
10	EB-05-20116011	WT	G			11/9/16	1050		3				X				
11	EB-06-20116011	WT	G			11/9/16	1725		3				X				
12																	

Requested Analysis Filtered (Y/N)

Analysis Test	Y/N	8260 VOCs	Sulfide	TOC	Sulfate	Nitrate, nitrite, unpres	6010-Iron	Ferric Iron calc. (send field Ferrous)	24			Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
		X	X	X	X	X	X	1B93U	1A035	B93U	1B93U		60231925
		X	X	X	X	X	X						3D69H 023
		X	X	X	X	X	X						7 day hold 30HF 024
		X	X	X	X	X	X						3D69H 025
		X											026
		X											027
		X											028
		X											029
		X											030
		X											031
		X											032
		X											033

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	Victoria Siegler/EE	11/9/16	1800		11/10/16	0832	0.3	Y	Y	Y
							0.4	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Victoria Siegler

SIGNATURE of SAMPLER: Victoria Siegler

DATE Signed (MM/DD/YY): 11/9/16

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

November 28, 2016

Tamara Gleason
Ramboll Environ
250 Monroe Ave. NW
Ste 400
Grand Rapids, MI 49503

RE: Project: WHIRLPOOL FT SMITH
Pace Project No.: 60231974

Dear Tamara Gleason:
Enclosed are the analytical results for sample(s) received by the laboratory on November 10, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Colleen Clyne
colleen.clyne@pacelabs.com
Project Manager

Enclosures

cc: Johanna Pavlowsky, Ramboll Environ

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

CERTIFICATIONS

Project: WHIRLPOOL FT SMITH
Pace Project No.: 60231974

Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414
525 N 8th Street, Salina, KS 67401
Alaska Certification UST-107
A2LA Certification #: 2926.01
Alaska Certification #: UST-078
Alaska Certification #MN00064
Alabama Certification #40770
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
Colorado Certification #Pace
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: 8TMS-L
Florida/NELAP Certification #: E87605
Guam Certification #:14-008r
Georgia Certification #: 959
Georgia EPD #: Pace
Idaho Certification #: MN00064
Hawaii Certification #MN00064
Illinois Certification #: 200011
Indiana Certification#C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky Dept of Envi. Protection - DW #90062
Kentucky Dept of Envi. Protection - WW #:90062
Louisiana DEQ Certification #: 3086
Louisiana DHH #: LA140001
Maine Certification #: 2013011
Maryland Certification #: 322
Michigan DEPH Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT0092
Nevada Certification #: MN_00064
Nebraska Certification #: Pace
New Jersey Certification #: MN-002
New York Certification #: 11647
North Carolina Certification #: 530
North Carolina State Public Health #: 27700
North Dakota Certification #: R-036
Ohio EPA #: 4150
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Saipan (CNMI) #:MP0003
South Carolina #:74003001
Texas Certification #: T104704192
Tennessee Certification #: 02818
Utah Certification #: MN000642013-4
Virginia DGS Certification #: 251
Virginia/VELAP Certification #: Pace
Washington Certification #: C486
West Virginia Certification #: 382
West Virginia DHHR #:9952C
Wisconsin Certification #: 999407970

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE SUMMARY

Project: WHIRLPOOL FT SMITH
Pace Project No.: 60231974

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60231974001	**VP-09-201611**	Air	11/08/16 17:59	11/10/16 08:32

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE ANALYTE COUNT

Project: WHIRLPOOL FT SMITH
Pace Project No.: 60231974

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60231974001	**VP-09-201611**	TO-15	NCK	9	PASI-M

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: WHIRLPOOL FT SMITH
Pace Project No.: 60231974

Method: **TO-15**
Description: TO15 MSV AIR
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
1 sample was analyzed for TO-15. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: WHIRLPOOL FT SMITH
Pace Project No.: 60231974

Sample: VP-09-201611 **Lab ID: 60231974001** Collected: 11/08/16 17:59 Received: 11/10/16 08:32 Matrix: Air

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
1,1-Dichloroethane	ND	ug/m3	1.1	0.22	1.39		11/22/16 15:06	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.57	0.28	1.39		11/22/16 15:06	107-06-2	
1,1-Dichloroethene	**0.59J**	ug/m3	1.1	0.33	1.39		11/22/16 15:06	75-35-4	
cis-1,2-Dichloroethene	**0.68J**	ug/m3	1.1	0.34	1.39		11/22/16 15:06	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.1	0.53	1.39		11/22/16 15:06	156-60-5	
Tetrachloroethene	**0.50J**	ug/m3	0.96	0.39	1.39		11/22/16 15:06	127-18-4	
1,1,1-Trichloroethane	ND	ug/m3	1.5	0.34	1.39		11/22/16 15:06	71-55-6	
Trichloroethene	**464**	ug/m3	15.3	7.7	27.8		11/23/16 11:04	79-01-6	
Vinyl chloride	**0.58**	ug/m3	0.36	0.27	1.39		11/22/16 15:06	75-01-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: WHIRLPOOL FT SMITH
Pace Project No.: 60231974

QC Batch: 448553 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 60231974001

METHOD BLANK: 2455389 Matrix: Air
Associated Lab Samples: 60231974001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	1.1	0.25	11/22/16 09:28	
1,1-Dichloroethane	ug/m3	ND	0.82	0.16	11/22/16 09:28	
1,1-Dichloroethene	ug/m3	ND	0.81	0.24	11/22/16 09:28	
1,2-Dichloroethane	ug/m3	ND	0.41	0.20	11/22/16 09:28	
cis-1,2-Dichloroethene	ug/m3	ND	0.81	0.25	11/22/16 09:28	
Tetrachloroethene	ug/m3	ND	0.69	0.28	11/22/16 09:28	
trans-1,2-Dichloroethene	ug/m3	ND	0.81	0.38	11/22/16 09:28	
Trichloroethene	ug/m3	ND	0.55	0.28	11/22/16 09:28	
Vinyl chloride	ug/m3	ND	0.26	0.20	11/22/16 09:28	

LABORATORY CONTROL SAMPLE: 2455390

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/m3	55.5	57.8	104	60-143	
1,1-Dichloroethane	ug/m3	41.1	44.7	109	62-139	
1,1-Dichloroethene	ug/m3	40.3	44.1	109	62-135	
1,2-Dichloroethane	ug/m3	41.1	43.5	106	61-144	
cis-1,2-Dichloroethene	ug/m3	40.3	42.8	106	65-139	
Tetrachloroethene	ug/m3	68.9	67.0	97	60-142	
trans-1,2-Dichloroethene	ug/m3	40.3	42.5	105	67-137	
Trichloroethene	ug/m3	54.6	56.9	104	60-144	
Vinyl chloride	ug/m3	26	28.7	110	63-135	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALIFIERS

Project: WHIRLPOOL FT SMITH
Pace Project No.: 60231974

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-M Pace Analytical Services - Minneapolis

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WHIRLPOOL FT SMITH
Pace Project No.: 60231974

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60231974001	**VP-09-201611**	TO-15	448553		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
www.pacelabs.com

Sample Condition Upon Receipt

WO# : 60231974

60231974

Client Name: Ramboll Environ

Courier: FedEx ☐ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☐ Client ☑ Other ☐

Tracking #: _____ Pace Shipping Label Used? Yes ☐ No ☑

Custody Seal on Cooler/Box Present: Yes ☐ No ☑ Seals intact: Yes ☐ No ☑

Packing Material: Bubble Wrap ☐ Bubble Bags ☐ Foam ☑ None ☐ Other ☐

Thermometer Used: T-266 / T-239 (CF +0.7 / CF -0.5) **Type of Ice:** Wet Blue (None)

BB 11/10/16

Date and initials of person examining contents:

Cooler Temperature (°C): **As-read** AmB **Corr. Factor** (CF +0.7 / CF -0.5) **Corrected** AmB

Temperature should be above freezing to 6°C

Chain of Custody present:	☑Yes ☐No ☐N/A	
Chain of Custody relinquished:	☑Yes ☐No ☐N/A	
Samples arrived within holding time:	☑Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☐Yes ☑No ☐N/A	
Rush Turn Around Time requested:	☐Yes ☑No ☐N/A	
Sufficient volume:	☑Yes ☐No ☐N/A	
Correct containers used:	☑Yes ☐No ☐N/A	
Pace containers used:	☐Yes ☐No ☐N/A	
Containers intact:	☑Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☑N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☑N/A	
Sample labels match COC: Date / time / ID / analyses	☑Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: Air	☐Yes ☑No ☐N/A	
Containers requiring pH preservation in compliance? (HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO)	☐Yes ☐No ☑N/A	
Cyanide water sample checks: ☑N/A Lead acetate strip turns dark? (Record only) Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No ☐Yes ☐No	
Trip Blank present:	☐Yes ☑No ☐N/A	
Headspace in VOA vials (>6mm):	☐Yes ☐No ☑N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☑N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☑N/A	

Client Notification/ Resolution: Copy COC to Client? Y / (N) Field Data Required? Y / (N)

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: CDC Date: 11/11/16

Pace Analytical
www.pacelabs.com

AIR: CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

22237

Page: 1 of 1

Section A Required Client Information:

Company: Ramboll Environ
Address: ~~2300~~ 7500 College Blvd Overland Park, KS 66210
Email To: tgleason@ramboll.com
Phone: Fax:
Requested Due Date/TAT: Standard

Section B Required Project Information:

Report To: tgleason@ramboll.com
Copy To: Colleen Clyne PACE Lenexa
Purchase Order No.:
Project Name: Whirlpool Ft Smith
Project Number: 34375000

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager/Sales Rep.
Pace Profile #:

Program: UST | Superfund | Emissions | Clean Air Act | Voluntary Clean Up | Dry Clean | RCRA | X Other ADEQ

Location of Sampling by State: AR

Reporting Units: ug/m³ X | mg/m³ | PPBV X | PPMV | Other

Report Level: II. X III. IV. Other

Section D Required Client Information

AIR SAMPLE ID
Sample IDs MUST BE UNIQUE

Valid Media Codes

MEDIA	CODE
Tedlar Bag	TB
1 Liter Summa Can	1LC
6 Liter Summa Can	6LC
Low Volume Puff	LVP
High Volume Puff	HVP
Other	PM10

ITEM #	'Section D Required Client Information: AIR SAMPLE ID (Sample IDs MUST BE UNIQUE)	MEDIA CODE	PID Reading (Client only)	COLLECTED: COMPOSITE START DATE	COLLECTED: COMPOSITE START TIME	COLLECTED: COMPOSITE END/GRAB DATE	COLLECTED: COMPOSITE END/GRAB TIME	Canister Pressure (Initial Field - psig)	Canister Pressure (Final Field - psig)	Summa Can Number	Flow Control Number	Method: PM10	3C- Fixed Gas (%)	TO-3	TO-3M (Methane)	TO-4 (PCBs)	TO-13 (PAH)	TO-14	TO-15 - SIM	TO15 Short List*	Pace Lab ID
1	VP-09-201611	6LC	-	11/8/16	946	11/8/16	1759	-27	-2	09609	FC0370							X			60249744
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

Comments:
TO-15 Client Specific List

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Wendy Stonestreet Ramboll	11/8/16		Fedex	11/10/16	0832

SAMPLE CONDITIONS

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
10.6	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Wendy Stonestreet
SIGNATURE of SAMPLER: Wendy Stonestreet DATE Signed (MM / DD / YY): 11/8/2016

ORIGINAL

1700 Elm Street SE, Suite 200, Minneapolis, MN 55414 Air Technical Phone: 612.607.6386

Chain of Custody

10370155

Pace Analytical
www.pacelabs.com

Workorder: 60231974 **Workorder Name:** WHIRLPOOL FT SMITH **Owner Received Date:** 11/10/2016 **Results Requested By:** 11/22/2016

Report To	Subcontract To
Colleen Clyne Pace Analytical Kansas 9608 Loiret Blvd. Lenexa, KS 66219 Phone (913)599-5665	Pace Analytical Minnesota 1700 Elm Street Suite 200 Minneapolis, MN 55414 Phone (612)607-1700

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers C	Requested Analysis TO-15 SIM	LAB USE ONLY
1	VP-09-201611	PS	11/8/2016 17:59	60231974001	Air	1	X	
2								
3								
4								
5								

Transfers	Released By	Date/Time	Received	Date/Time
1		11/14/16 1700		111616 0930
2				
3				

Comments: *see attached list

Cooler Temperature on Receipt AMB °C Custody Seal (Y) or (N) Received on Ice Y or (N) Samples Intact (Y) or N

111616

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.

Pace Analytical	Document Name: Air Sample Condition Upon Receipt	Document Revised: 26APR2016 Page 1 of 1
	Document No.: F-MN-A-106-rev.11	Issuing Authority: Pace Minnesota Quality Office

Air Sample Condition Upon Receipt

Client Name: Pace KS

Project #: WO#: 10370155

10370155

Courier: ☒ Fed Ex ☐ UPS ☐ Speedee ☐ Client ☐ Commercial ☐ Pace ☐ Other:

Tracking Number: 7044 6656 4574

Custody Seal on Cooler/Box Present? ☒ Yes ☐ No **Seals Intact?** ☒ Yes ☐ No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ Foam ☐ None ☐ Tin Can ☐ Other: **Temp Blank rec:** ☐ Yes ☒ No

Temp. (TO17 and TO13 samples only) (°C): \ **Corrected Temp (°C):** \ **Thermom. Used:** ☐ B88A912167504 ☐ B88A0143310098 ☐ 151401163 ☐ 151401164

Temp should be above freezing to 6°C **Correction Factor:** \ **Date & Initials of Person Examining Contents:** 11/16/16

Type of ice Received ☐ Blue ☐ Wet ☒ None

				Comments:
Chain of Custody Present?	☒ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☒ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☒ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☐ Yes	☒ No	☐ N/A	4.
Samples Arrived within Hold Time?	☒ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☒ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☒ No	☐ N/A	7.
Sufficient Volume?	☒ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☒ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☒ Yes	☐ No	☐ N/A	
Containers Intact?	☒ Yes	☐ No	☐ N/A	10.
Media: (Air Can) Airbag Filter TDT Passive				11.
Sample Labels Match COC?	☒ Yes	☐ No	☐ N/A	12.

Samples Received:

Canisters			Canisters		
Sample Number	Can ID	Flow Controller ID	Sample Number	Can ID	Flow Controller ID
unused	0983	0306			
unused	0830	1033			
001	0969	0390			

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: Scott Unze **Date:** 11/16/16

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

November 28, 2016

Tamara Gleason
Ramboll Environ
250 Monroe Ave. NW
Ste 400
Grand Rapids, MI 49503

RE: Project: FORT SMITH, AR
Pace Project No.: 60232090

Dear Tamara Gleason:
Enclosed are the analytical results for sample(s) received by the laboratory on November 10, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Colleen Clyne
colleen.clyne@pacelabs.com
Project Manager

Enclosures

cc: Johanna Pavlowsky, Ramboll Environ

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

CERTIFICATIONS

Project: FORT SMITH, AR
Pace Project No.: 60232090

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219
WY STR Certification #: 2456.01
Arkansas Certification #: 15-016-0
Illinois Certification #: 003097
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407
Utah Certification #: KS00021
Kansas Field Laboratory Accreditation: # E-92587
Missouri Certification: 10070

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE SUMMARY

Project: FORT SMITH, AR
Pace Project No.: 60232090

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60232090001	**EB-03-201611**	Water	11/10/16 11:05	11/10/16 18:00
60232090002	**ITMW-5-201611**	Water	11/10/16 10:45	11/10/16 18:00
60232090003	**DUP-06-201611**	Water	11/10/16 10:45	11/10/16 18:00
60232090004	**ITMW-7-201611**	Water	11/10/16 09:10	11/10/16 18:00
60232090005	**MW-178-201611**	Water	11/10/16 10:30	11/10/16 18:00
60232090006	**MW-91-201611**	Water	11/10/16 09:05	11/10/16 18:00
60232090007	**DUP-03-201611**	Water	11/10/16 09:05	11/10/16 18:00
60232090008	**MW-58-201611**	Water	11/10/16 09:25	11/10/16 18:00
60232090009	**MW-38-201611**	Water	11/10/16 12:05	11/10/16 18:00
60232090010	**ITMW-1-201611**	Water	11/10/16 09:00	11/10/16 18:00
60232090011	**ITMW-10-201611**	Water	11/10/16 10:37	11/10/16 18:00
60232090012	**DUP-04-201611**	Water	11/10/16 09:00	11/10/16 18:00
60232090013	**TB-05-201611**	Water	11/10/16 09:00	11/10/16 18:00

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE ANALYTE COUNT

Project: FORT SMITH, AR
Pace Project No.: 60232090

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60232090001	**EB-03-201611**	EPA 5030B/8260	PGH	38	PASI-K
60232090002	**ITMW-5-201611**	EPA 5030B/8260	PGH	38	PASI-K
60232090003	**DUP-06-201611**	EPA 5030B/8260	PGH	38	PASI-K
60232090004	**ITMW-7-201611**	EPA 5030B/8260	PGH	38	PASI-K
60232090005	**MW-178-201611**	EPA 5030B/8260	PGH	38	PASI-K
60232090006	**MW-91-201611**	EPA 5030B/8260	PGH	38	PASI-K
60232090007	**DUP-03-201611**	EPA 5030B/8260	PGH	38	PASI-K
60232090008	**MW-58-201611**	EPA 6010	SMW	1	PASI-K
		EPA 5030B/8260	PGH	38	PASI-K
		SM 2320B	HMM	3	PASI-K
		SM 4500-S-2 D	HMM	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 350.1	LDB	1	PASI-K
		SM 5310C	JMC1	1	PASI-K
60232090009	**MW-38-201611**	EPA 6010	SMW	1	PASI-K
		EPA 5030B/8260	PGH	38	PASI-K
		SM 2320B	HMM	3	PASI-K
		SM 4500-S-2 D	HMM	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 350.1	LDB	1	PASI-K
		SM 5310C	JMC1	1	PASI-K
60232090010	**ITMW-1-201611**	EPA 5030B/8260	PGH	38	PASI-K
60232090011	**ITMW-10-201611**	EPA 5030B/8260	PGH	38	PASI-K
60232090012	**DUP-04-201611**	EPA 5030B/8260	PGH	38	PASI-K
60232090013	**TB-05-201611**	EPA 5030B/8260	PGH	38	PASI-K

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60232090

Method: **EPA 6010**
Description: 6010 MET ICP
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
2 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60232090

Method: **EPA 5030B/8260**
Description: 8260 MSV
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
13 samples were analyzed for EPA 5030B/8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

QC Batch: 455629

B: Analyte was detected in the associated method blank.
- BLANK for HBN 455629 [MSV/7933 (Lab ID: 1865619)
  - Carbon disulfide

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: 454974

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
- LCS (Lab ID: 1863097)
  - 1,1,2-Trichloroethane

QC Batch: 455417

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
- LCS (Lab ID: 1864722)
  - 1,1,1-Trichloroethane
  - Benzene
  - Carbon tetrachloride
  - Trichloroethene
  - trans-1,2-Dichloroethene

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60232090

Method: **EPA 5030B/8260**
Description: 8260 MSV
Client: Ramboll Environ_AR
Date: November 28, 2016

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 454974

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

QC Batch: 455417

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

QC Batch: 455629

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

QC Batch: 455887

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60232090

Method: **SM 2320B**
Description: 2320B Alkalinity
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
2 samples were analyzed for SM 2320B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60232090

Method: **SM 4500-S-2 D**
Description: 4500S2D Sulfide, Total
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
2 samples were analyzed for SM 4500-S-2 D. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60232090

Method: **EPA 300.0**
Description: 300.0 IC Anions 28 Days
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
2 samples were analyzed for EPA 300.0. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 455759

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60232095001,60232259001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1866330)
  - Sulfate

QC Batch: 456029

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60232089001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1867281)
  - Chloride
  - Sulfate
- MSD (Lab ID: 1867282)
  - Chloride
  - Sulfate

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60232090

Method: **EPA 350.1**
Description: 350.1 Ammonia
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
2 samples were analyzed for EPA 350.1. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60232090

Method: **SM 5310C**
Description: 5310C TOC
Client: Ramboll Environ_AR
Date: November 28, 2016

General Information:
2 samples were analyzed for SM 5310C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

QC Batch: 455835

B: Analyte was detected in the associated method blank.

- BLANK for HBN 455835 [WETA/425 (Lab ID: 1866815)
  - Total Organic Carbon

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60232090

Sample: EB-03-201611 **Lab ID: 60232090001** Collected: 11/10/16 11:05 Received: 11/10/16 18:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/16/16 16:42	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/16/16 16:42	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/16/16 16:42	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/16/16 16:42	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/16/16 16:42	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/16/16 16:42	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/16/16 16:42	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/16/16 16:42	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/16/16 16:42	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/16/16 16:42	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/16/16 16:42	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/16/16 16:42	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/16/16 16:42	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/16/16 16:42	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/16/16 16:42	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 16:42	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/16/16 16:42	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/16/16 16:42	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/16/16 16:42	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/16/16 16:42	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/16/16 16:42	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/16/16 16:42	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/16/16 16:42	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/16/16 16:42	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/16/16 16:42	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/16/16 16:42	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/16/16 16:42	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/16/16 16:42	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/16/16 16:42	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/16/16 16:42	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/16/16 16:42	79-00-5	L3
Trichloroethene	ND	ug/L	1.0	0.17	1		11/16/16 16:42	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/16/16 16:42	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/16/16 16:42	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	88	%	77-130		1		11/16/16 16:42	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	81-127		1		11/16/16 16:42	17060-07-0	
Toluene-d8 (S)	98	%	80-120		1		11/16/16 16:42	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/16/16 16:42		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60232090

Sample: ITMW-5-201611 **Lab ID: 60232090002** Collected: 11/10/16 10:45 Received: 11/10/16 18:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/21/16 16:28	67-64-1	
Benzene	**0.10J**	ug/L	1.0	0.060	1		11/21/16 16:28	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/21/16 16:28	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/21/16 16:28	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/21/16 16:28	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/21/16 16:28	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/21/16 16:28	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/21/16 16:28	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/21/16 16:28	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/21/16 16:28	75-00-3	
Chloroform	**0.28J**	ug/L	1.0	0.14	1		11/21/16 16:28	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/21/16 16:28	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/21/16 16:28	124-48-1	
1,1-Dichloroethane	**1.7**	ug/L	1.0	0.050	1		11/21/16 16:28	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/21/16 16:28	107-06-2	
1,1-Dichloroethene	**4.6**	ug/L	1.0	0.20	1		11/21/16 16:28	75-35-4	
cis-1,2-Dichloroethene	**38.9**	ug/L	1.0	0.080	1		11/21/16 16:28	156-59-2	
trans-1,2-Dichloroethene	**0.39J**	ug/L	1.0	0.20	1		11/21/16 16:28	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/21/16 16:28	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/21/16 16:28	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/21/16 16:28	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/21/16 16:28	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/21/16 16:28	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/21/16 16:28	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/21/16 16:28	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/21/16 16:28	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/21/16 16:28	79-34-5	
Tetrachloroethene	**0.99J**	ug/L	1.0	0.10	1		11/21/16 16:28	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/21/16 16:28	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/21/16 16:28	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/21/16 16:28	79-00-5	
Trichloroethene	**507**	ug/L	10.0	1.7	10		11/19/16 15:25	79-01-6	
Vinyl chloride	**2.8**	ug/L	1.0	0.13	1		11/21/16 16:28	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/21/16 16:28	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	95	%	77-130		1		11/21/16 16:28	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	81-127		1		11/21/16 16:28	17060-07-0	
Toluene-d8 (S)	100	%	80-120		1		11/21/16 16:28	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/21/16 16:28		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60232090

Sample: DUP-06-201611 **Lab ID: 60232090003** Collected: 11/10/16 10:45 Received: 11/10/16 18:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/21/16 16:42	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/21/16 16:42	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/21/16 16:42	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/21/16 16:42	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/21/16 16:42	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/21/16 16:42	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/21/16 16:42	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/21/16 16:42	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/21/16 16:42	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/21/16 16:42	75-00-3	
Chloroform	**0.34J**	ug/L	1.0	0.14	1		11/21/16 16:42	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/21/16 16:42	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/21/16 16:42	124-48-1	
1,1-Dichloroethane	**1.9**	ug/L	1.0	0.050	1		11/21/16 16:42	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/21/16 16:42	107-06-2	
1,1-Dichloroethene	**4.5**	ug/L	1.0	0.20	1		11/21/16 16:42	75-35-4	
cis-1,2-Dichloroethene	**33.5**	ug/L	1.0	0.080	1		11/21/16 16:42	156-59-2	
trans-1,2-Dichloroethene	**0.31J**	ug/L	1.0	0.20	1		11/21/16 16:42	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/21/16 16:42	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/21/16 16:42	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/21/16 16:42	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/21/16 16:42	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/21/16 16:42	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/21/16 16:42	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/21/16 16:42	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/21/16 16:42	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/21/16 16:42	79-34-5	
Tetrachloroethene	**0.89J**	ug/L	1.0	0.10	1		11/21/16 16:42	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/21/16 16:42	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/21/16 16:42	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/21/16 16:42	79-00-5	
Trichloroethene	**441**	ug/L	10.0	1.7	10		11/19/16 15:39	79-01-6	
Vinyl chloride	**1.5**	ug/L	1.0	0.13	1		11/21/16 16:42	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/21/16 16:42	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	98	%	77-130		1		11/21/16 16:42	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	81-127		1		11/21/16 16:42	17060-07-0	
Toluene-d8 (S)	111	%	80-120		1		11/21/16 16:42	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/21/16 16:42		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60232090

Sample: ITMW-7-201611 **Lab ID: 60232090004** Collected: 11/10/16 09:10 Received: 11/10/16 18:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/18/16 03:50	67-64-1	
Benzene	**0.099J**	ug/L	1.0	0.060	1		11/18/16 03:50	71-43-2	L1
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/18/16 03:50	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/18/16 03:50	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/18/16 03:50	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/18/16 03:50	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/18/16 03:50	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/18/16 03:50	56-23-5	L3
Chlorobenzene	**1.6**	ug/L	1.0	0.21	1		11/18/16 03:50	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/18/16 03:50	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/18/16 03:50	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/18/16 03:50	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/18/16 03:50	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/18/16 03:50	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/18/16 03:50	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/18/16 03:50	75-35-4	
cis-1,2-Dichloroethene	**10**	ug/L	1.0	0.080	1		11/18/16 03:50	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/18/16 03:50	156-60-5	L3
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/18/16 03:50	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/18/16 03:50	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/18/16 03:50	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/18/16 03:50	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/18/16 03:50	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/18/16 03:50	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/18/16 03:50	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/18/16 03:50	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/18/16 03:50	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/18/16 03:50	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/18/16 03:50	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/18/16 03:50	71-55-6	L3
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/18/16 03:50	79-00-5	
Trichloroethene	**33.2**	ug/L	1.0	0.17	1		11/19/16 14:13	79-01-6	
Vinyl chloride	**0.26J**	ug/L	1.0	0.13	1		11/18/16 03:50	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/18/16 03:50	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	77-130		1		11/18/16 03:50	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	81-127		1		11/18/16 03:50	17060-07-0	
Toluene-d8 (S)	100	%	80-120		1		11/18/16 03:50	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/18/16 03:50		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60232090

Sample: MW-178-201611 **Lab ID: 60232090005** Collected: 11/10/16 10:30 Received: 11/10/16 18:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/18/16 04:04	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/18/16 04:04	71-43-2	L3
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/18/16 04:04	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/18/16 04:04	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/18/16 04:04	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/18/16 04:04	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/18/16 04:04	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/18/16 04:04	56-23-5	L3
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/18/16 04:04	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/18/16 04:04	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/18/16 04:04	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/18/16 04:04	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/18/16 04:04	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/18/16 04:04	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/18/16 04:04	107-06-2	
1,1-Dichloroethene	**0.21J**	ug/L	1.0	0.20	1		11/18/16 04:04	75-35-4	
cis-1,2-Dichloroethene	**0.15J**	ug/L	1.0	0.080	1		11/18/16 04:04	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/18/16 04:04	156-60-5	L3
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/18/16 04:04	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/18/16 04:04	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/18/16 04:04	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/18/16 04:04	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/18/16 04:04	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/18/16 04:04	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/18/16 04:04	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/18/16 04:04	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/18/16 04:04	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/18/16 04:04	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/18/16 04:04	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/18/16 04:04	71-55-6	L3
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/18/16 04:04	79-00-5	
Trichloroethene	**3.2**	ug/L	1.0	0.17	1		11/19/16 14:27	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/18/16 04:04	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/18/16 04:04	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	95	%	77-130		1		11/18/16 04:04	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	81-127		1		11/18/16 04:04	17060-07-0	
Toluene-d8 (S)	93	%	80-120		1		11/18/16 04:04	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/18/16 04:04		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60232090

Sample: MW-91-201611 **Lab ID: 60232090006** Collected: 11/10/16 09:05 Received: 11/10/16 18:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/21/16 16:57	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/21/16 16:57	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/21/16 16:57	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/21/16 16:57	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/21/16 16:57	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/21/16 16:57	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/21/16 16:57	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/21/16 16:57	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/21/16 16:57	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/21/16 16:57	75-00-3	
Chloroform	**0.30J**	ug/L	1.0	0.14	1		11/21/16 16:57	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/21/16 16:57	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/21/16 16:57	124-48-1	
1,1-Dichloroethane	**1.9**	ug/L	1.0	0.050	1		11/21/16 16:57	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/21/16 16:57	107-06-2	
1,1-Dichloroethene	**5.5**	ug/L	1.0	0.20	1		11/21/16 16:57	75-35-4	
cis-1,2-Dichloroethene	**41.6**	ug/L	1.0	0.080	1		11/21/16 16:57	156-59-2	
trans-1,2-Dichloroethene	**0.62J**	ug/L	1.0	0.20	1		11/21/16 16:57	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/21/16 16:57	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/21/16 16:57	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/21/16 16:57	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/21/16 16:57	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/21/16 16:57	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/21/16 16:57	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/21/16 16:57	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/21/16 16:57	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/21/16 16:57	79-34-5	
Tetrachloroethene	**1.6**	ug/L	1.0	0.10	1		11/21/16 16:57	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/21/16 16:57	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/21/16 16:57	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/21/16 16:57	79-00-5	
Trichloroethene	**574**	ug/L	10.0	1.7	10		11/19/16 15:54	79-01-6	
Vinyl chloride	**0.36J**	ug/L	1.0	0.13	1		11/21/16 16:57	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/21/16 16:57	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	93	%	77-130		1		11/21/16 16:57	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	81-127		1		11/21/16 16:57	17060-07-0	
Toluene-d8 (S)	87	%	80-120		1		11/21/16 16:57	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/21/16 16:57		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60232090

Sample: DUP-03-201611 **Lab ID: 60232090007** Collected: 11/10/16 09:05 Received: 11/10/16 18:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/21/16 17:11	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/21/16 17:11	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/21/16 17:11	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/21/16 17:11	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/21/16 17:11	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/21/16 17:11	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/21/16 17:11	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/21/16 17:11	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/21/16 17:11	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/21/16 17:11	75-00-3	
Chloroform	**0.26J**	ug/L	1.0	0.14	1		11/21/16 17:11	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/21/16 17:11	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/21/16 17:11	124-48-1	
1,1-Dichloroethane	**1.5**	ug/L	1.0	0.050	1		11/21/16 17:11	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/21/16 17:11	107-06-2	
1,1-Dichloroethene	**4.7**	ug/L	1.0	0.20	1		11/21/16 17:11	75-35-4	
cis-1,2-Dichloroethene	**40.6**	ug/L	1.0	0.080	1		11/21/16 17:11	156-59-2	
trans-1,2-Dichloroethene	**0.57J**	ug/L	1.0	0.20	1		11/21/16 17:11	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/21/16 17:11	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/21/16 17:11	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/21/16 17:11	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/21/16 17:11	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/21/16 17:11	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/21/16 17:11	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/21/16 17:11	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/21/16 17:11	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/21/16 17:11	79-34-5	
Tetrachloroethene	**2.1**	ug/L	1.0	0.10	1		11/21/16 17:11	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/21/16 17:11	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/21/16 17:11	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/21/16 17:11	79-00-5	
Trichloroethene	**599**	ug/L	10.0	1.7	10		11/19/16 16:08	79-01-6	
Vinyl chloride	**0.38J**	ug/L	1.0	0.13	1		11/21/16 17:11	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/21/16 17:11	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	94	%	77-130		1		11/21/16 17:11	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	81-127		1		11/21/16 17:11	17060-07-0	
Toluene-d8 (S)	101	%	80-120		1		11/21/16 17:11	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/21/16 17:11		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60232090

Sample: MW-58-201611 **Lab ID: 60232090008** Collected: 11/10/16 09:25 Received: 11/10/16 18:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	**8030**	ug/L	50.0	8.8	1	11/15/16 10:00	11/16/16 15:07	7439-89-6	
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/21/16 17:26	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/21/16 17:26	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/21/16 17:26	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/21/16 17:26	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/21/16 17:26	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/21/16 17:26	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/21/16 17:26	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/21/16 17:26	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/21/16 17:26	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/21/16 17:26	75-00-3	
Chloroform	**0.16J**	ug/L	1.0	0.14	1		11/21/16 17:26	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/21/16 17:26	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/21/16 17:26	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/21/16 17:26	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/21/16 17:26	107-06-2	
1,1-Dichloroethene	**2.3**	ug/L	1.0	0.20	1		11/21/16 17:26	75-35-4	
cis-1,2-Dichloroethene	**28.5**	ug/L	1.0	0.080	1		11/21/16 17:26	156-59-2	
trans-1,2-Dichloroethene	**0.23J**	ug/L	1.0	0.20	1		11/21/16 17:26	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/21/16 17:26	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/21/16 17:26	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/21/16 17:26	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/21/16 17:26	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/21/16 17:26	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/21/16 17:26	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/21/16 17:26	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/21/16 17:26	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/21/16 17:26	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/21/16 17:26	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/21/16 17:26	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/21/16 17:26	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/21/16 17:26	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/21/16 17:26	79-01-6	
Vinyl chloride	**0.85J**	ug/L	1.0	0.13	1		11/21/16 17:26	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/21/16 17:26	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	96	%	77-130		1		11/21/16 17:26	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	81-127		1		11/21/16 17:26	17060-07-0	
Toluene-d8 (S)	99	%	80-120		1		11/21/16 17:26	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/21/16 17:26		
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity,Bicarbonate (CaCO3)	**29.2**	mg/L	20.0	4.9	1		11/17/16 11:32		
Alkalinity, Carbonate (CaCO3)	ND	mg/L	20.0	4.9	1		11/17/16 11:32		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60232090

Sample: MW-58-201611 **Lab ID: 60232090008** Collected: 11/10/16 09:25 Received: 11/10/16 18:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity, Total as CaCO3	**29.2**	mg/L	20.0	4.9	1		11/17/16 11:32		
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D								
Sulfide, Total	ND	mg/L	0.050	0.019	1		11/16/16 13:48	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**249**	mg/L	20.0	10.0	20		11/22/16 09:49	16887-00-6	
Sulfate	**1.4**	mg/L	1.0	0.15	1		11/20/16 20:00	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.10	0.013	1		11/21/16 10:42	7664-41-7	
5310C TOC	Analytical Method: SM 5310C								
Total Organic Carbon	**0.33J**	mg/L	1.0	0.054	1		11/21/16 10:27	7440-44-0	B

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60232090

Sample: MW-38-201611 **Lab ID: 60232090009** Collected: 11/10/16 12:05 Received: 11/10/16 18:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	**6040**	ug/L	50.0	8.8	1	11/15/16 10:00	11/16/16 15:11	7439-89-6	
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/21/16 16:13	67-64-1	
Benzene	**0.20J**	ug/L	1.0	0.060	1		11/21/16 16:13	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/21/16 16:13	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/21/16 16:13	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/21/16 16:13	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/21/16 16:13	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/21/16 16:13	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/21/16 16:13	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/21/16 16:13	108-90-7	
Chloroethane	**0.38J**	ug/L	1.0	0.15	1		11/21/16 16:13	75-00-3	
Chloroform	**0.30J**	ug/L	1.0	0.14	1		11/21/16 16:13	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/21/16 16:13	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/21/16 16:13	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/21/16 16:13	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/21/16 16:13	107-06-2	
1,1-Dichloroethene	**19.9**	ug/L	1.0	0.20	1		11/21/16 16:13	75-35-4	
cis-1,2-Dichloroethene	**1070**	ug/L	50.0	4.0	50		11/19/16 16:37	156-59-2	
trans-1,2-Dichloroethene	**17.8**	ug/L	1.0	0.20	1		11/21/16 16:13	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/21/16 16:13	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/21/16 16:13	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/21/16 16:13	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/21/16 16:13	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/21/16 16:13	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/21/16 16:13	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/21/16 16:13	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/21/16 16:13	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/21/16 16:13	79-34-5	
Tetrachloroethene	**0.81J**	ug/L	1.0	0.10	1		11/21/16 16:13	127-18-4	
Toluene	**0.43J**	ug/L	1.0	0.17	1		11/21/16 16:13	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/21/16 16:13	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/21/16 16:13	79-00-5	
Trichloroethene	**2860**	ug/L	50.0	8.5	50		11/19/16 16:37	79-01-6	
Vinyl chloride	**597**	ug/L	50.0	6.5	50		11/19/16 16:37	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/21/16 16:13	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	77-130		1		11/21/16 16:13	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	81-127		1		11/21/16 16:13	17060-07-0	
Toluene-d8 (S)	101	%	80-120		1		11/21/16 16:13	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/21/16 16:13		
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity,Bicarbonate (CaCO3)	**186**	mg/L	20.0	4.9	1		11/17/16 11:36		
Alkalinity, Carbonate (CaCO3)	ND	mg/L	20.0	4.9	1		11/17/16 11:36		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60232090

Sample: MW-38-201611 **Lab ID: 60232090009** Collected: 11/10/16 12:05 Received: 11/10/16 18:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity, Total as CaCO3	**186**	mg/L	20.0	4.9	1		11/17/16 11:36		
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D								
Sulfide, Total	ND	mg/L	0.050	0.019	1		11/16/16 13:49	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**23.8**	mg/L	2.0	1.0	2		11/22/16 10:03	16887-00-6	
Sulfate	**28.2**	mg/L	2.0	0.31	2		11/22/16 10:03	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**0.24**	mg/L	0.10	0.013	1		11/21/16 10:44	7664-41-7	
5310C TOC	Analytical Method: SM 5310C								
Total Organic Carbon	**2.9**	mg/L	1.0	0.054	1		11/21/16 10:53	7440-44-0	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60232090

Sample: ITMW-1-201611 **Lab ID: 60232090010** Collected: 11/10/16 09:00 Received: 11/10/16 18:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/18/16 04:19	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/18/16 04:19	71-43-2	L3
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/18/16 04:19	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/18/16 04:19	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/18/16 04:19	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/18/16 04:19	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/18/16 04:19	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/18/16 04:19	56-23-5	L3
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/18/16 04:19	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/18/16 04:19	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/18/16 04:19	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/18/16 04:19	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/18/16 04:19	124-48-1	
1,1-Dichloroethane	**0.41J**	ug/L	1.0	0.050	1		11/18/16 04:19	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/18/16 04:19	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/18/16 04:19	75-35-4	
cis-1,2-Dichloroethene	**3.1**	ug/L	1.0	0.080	1		11/18/16 04:19	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/18/16 04:19	156-60-5	L3
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/18/16 04:19	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/18/16 04:19	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/18/16 04:19	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/18/16 04:19	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/18/16 04:19	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/18/16 04:19	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/18/16 04:19	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/18/16 04:19	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/18/16 04:19	79-34-5	
Tetrachloroethene	**0.16J**	ug/L	1.0	0.10	1		11/18/16 04:19	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/18/16 04:19	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/18/16 04:19	71-55-6	L3
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/18/16 04:19	79-00-5	
Trichloroethene	**7.6**	ug/L	1.0	0.17	1		11/19/16 14:42	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/18/16 04:19	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/18/16 04:19	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	77-130		1		11/18/16 04:19	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	81-127		1		11/18/16 04:19	17060-07-0	
Toluene-d8 (S)	85	%	80-120		1		11/18/16 04:19	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/18/16 04:19		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60232090

Sample: ITMW-10-201611 **Lab ID: 60232090011** Collected: 11/10/16 10:37 Received: 11/10/16 18:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/19/16 14:56	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/19/16 14:56	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/19/16 14:56	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/19/16 14:56	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/19/16 14:56	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/19/16 14:56	78-93-3	
Carbon disulfide	**0.13J**	ug/L	5.0	0.12	1		11/19/16 14:56	75-15-0	B
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/19/16 14:56	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/19/16 14:56	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/19/16 14:56	75-00-3	
Chloroform	**0.15J**	ug/L	1.0	0.14	1		11/19/16 14:56	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/19/16 14:56	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/19/16 14:56	124-48-1	
1,1-Dichloroethane	**1.1**	ug/L	1.0	0.050	1		11/19/16 14:56	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/19/16 14:56	107-06-2	
1,1-Dichloroethene	**1.2**	ug/L	1.0	0.20	1		11/19/16 14:56	75-35-4	
cis-1,2-Dichloroethene	**12.5**	ug/L	1.0	0.080	1		11/19/16 14:56	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/19/16 14:56	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/19/16 14:56	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/19/16 14:56	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/19/16 14:56	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/19/16 14:56	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/19/16 14:56	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/19/16 14:56	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/19/16 14:56	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/19/16 14:56	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/19/16 14:56	79-34-5	
Tetrachloroethene	**0.29J**	ug/L	1.0	0.10	1		11/19/16 14:56	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/19/16 14:56	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/19/16 14:56	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/19/16 14:56	79-00-5	
Trichloroethene	**113**	ug/L	1.0	0.17	1		11/19/16 14:56	79-01-6	
Vinyl chloride	**0.52J**	ug/L	1.0	0.13	1		11/19/16 14:56	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/19/16 14:56	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	77-130		1		11/19/16 14:56	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	81-127		1		11/19/16 14:56	17060-07-0	
Toluene-d8 (S)	101	%	80-120		1		11/19/16 14:56	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/19/16 14:56		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60232090

Sample: DUP-04-201611 **Lab ID: 60232090012** Collected: 11/10/16 09:00 Received: 11/10/16 18:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/18/16 05:17	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/18/16 05:17	71-43-2	L3
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/18/16 05:17	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/18/16 05:17	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/18/16 05:17	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/18/16 05:17	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/18/16 05:17	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/18/16 05:17	56-23-5	L3
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/18/16 05:17	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/18/16 05:17	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/18/16 05:17	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/18/16 05:17	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/18/16 05:17	124-48-1	
1,1-Dichloroethane	**0.39J**	ug/L	1.0	0.050	1		11/18/16 05:17	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/18/16 05:17	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/18/16 05:17	75-35-4	
cis-1,2-Dichloroethene	**3.4**	ug/L	1.0	0.080	1		11/18/16 05:17	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/18/16 05:17	156-60-5	L3
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/18/16 05:17	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/18/16 05:17	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/18/16 05:17	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/18/16 05:17	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/18/16 05:17	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/18/16 05:17	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/18/16 05:17	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/18/16 05:17	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/18/16 05:17	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/18/16 05:17	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/18/16 05:17	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/18/16 05:17	71-55-6	L3
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/18/16 05:17	79-00-5	
Trichloroethene	**7.0**	ug/L	1.0	0.17	1		11/19/16 15:10	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/18/16 05:17	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/18/16 05:17	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	99	%	77-130		1		11/18/16 05:17	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	81-127		1		11/18/16 05:17	17060-07-0	
Toluene-d8 (S)	95	%	80-120		1		11/18/16 05:17	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/18/16 05:17		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60232090

Sample: TB-05-201611 **Lab ID: 60232090013** Collected: 11/10/16 09:00 Received: 11/10/16 18:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		11/18/16 03:35	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		11/18/16 03:35	71-43-2	L3
Bromodichloromethane	ND	ug/L	1.0	0.19	1		11/18/16 03:35	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		11/18/16 03:35	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		11/18/16 03:35	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		11/18/16 03:35	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		11/18/16 03:35	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		11/18/16 03:35	56-23-5	L3
Chlorobenzene	ND	ug/L	1.0	0.21	1		11/18/16 03:35	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		11/18/16 03:35	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		11/18/16 03:35	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		11/18/16 03:35	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		11/18/16 03:35	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		11/18/16 03:35	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/18/16 03:35	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		11/18/16 03:35	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		11/18/16 03:35	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		11/18/16 03:35	156-60-5	L3
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		11/18/16 03:35	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		11/18/16 03:35	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		11/18/16 03:35	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		11/18/16 03:35	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		11/18/16 03:35	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		11/18/16 03:35	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		11/18/16 03:35	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		11/18/16 03:35	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		11/18/16 03:35	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		11/18/16 03:35	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		11/18/16 03:35	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		11/18/16 03:35	71-55-6	L3
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		11/18/16 03:35	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		11/18/16 03:35	79-01-6	L3
Vinyl chloride	ND	ug/L	1.0	0.13	1		11/18/16 03:35	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		11/18/16 03:35	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	93	%	77-130		1		11/18/16 03:35	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	81-127		1		11/18/16 03:35	17060-07-0	
Toluene-d8 (S)	93	%	80-120		1		11/18/16 03:35	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		11/18/16 03:35		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60232090

QC Batch: 454946 — Analysis Method: EPA 6010
QC Batch Method: EPA 3010 — Analysis Description: 6010 MET
Associated Lab Samples: 60232090008, 60232090009

METHOD BLANK: 1863017 — Matrix: Water
Associated Lab Samples: 60232090008, 60232090009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron	ug/L	ND	50.0	8.8	11/16/16 11:03	

LABORATORY CONTROL SAMPLE: 1863018

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron	ug/L	10000	10000	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1863019 1863020

Parameter	Units	60231811001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron	ug/L		10000	10000	30300	29900	95	92	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60232090

QC Batch: 454974
QC Batch Method: EPA 5030B/8260
Analysis Method: EPA 5030B/8260
Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60232090001

METHOD BLANK: 1863096
Matrix: Water
Associated Lab Samples: 60232090001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	0.11	11/16/16 15:29	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.15	11/16/16 15:29	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.20	11/16/16 15:29	
1,1-Dichloroethane	ug/L	ND	1.0	0.050	11/16/16 15:29	
1,1-Dichloroethene	ug/L	ND	1.0	0.20	11/16/16 15:29	
1,2-Dichloroethane	ug/L	ND	1.0	0.12	11/16/16 15:29	
1,2-Dichloropropane	ug/L	ND	1.0	0.16	11/16/16 15:29	
2-Butanone (MEK)	ug/L	ND	10.0	0.59	11/16/16 15:29	
2-Hexanone	ug/L	ND	10.0	1.2	11/16/16 15:29	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	0.42	11/16/16 15:29	
Acetone	ug/L	ND	10.0	1.9	11/16/16 15:29	
Benzene	ug/L	ND	1.0	0.060	11/16/16 15:29	
Bromodichloromethane	ug/L	ND	1.0	0.19	11/16/16 15:29	
Bromoform	ug/L	ND	1.0	0.070	11/16/16 15:29	
Bromomethane	ug/L	ND	5.0	0.16	11/16/16 15:29	
Carbon disulfide	ug/L	ND	5.0	0.12	11/16/16 15:29	
Carbon tetrachloride	ug/L	ND	1.0	0.18	11/16/16 15:29	
Chlorobenzene	ug/L	ND	1.0	0.21	11/16/16 15:29	
Chloroethane	ug/L	ND	1.0	0.15	11/16/16 15:29	
Chloroform	ug/L	ND	1.0	0.14	11/16/16 15:29	
Chloromethane	ug/L	ND	1.0	0.080	11/16/16 15:29	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.080	11/16/16 15:29	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.14	11/16/16 15:29	
Dibromochloromethane	ug/L	ND	1.0	0.21	11/16/16 15:29	
Ethylbenzene	ug/L	ND	1.0	0.18	11/16/16 15:29	
Methylene chloride	ug/L	ND	1.0	0.15	11/16/16 15:29	
Styrene	ug/L	ND	1.0	0.12	11/16/16 15:29	
Tetrachloroethene	ug/L	ND	1.0	0.10	11/16/16 15:29	
Toluene	ug/L	ND	1.0	0.17	11/16/16 15:29	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.20	11/16/16 15:29	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.12	11/16/16 15:29	
Trichloroethene	ug/L	ND	1.0	0.17	11/16/16 15:29	
Vinyl chloride	ug/L	ND	1.0	0.13	11/16/16 15:29	
Xylene (Total)	ug/L	ND	3.0	0.42	11/16/16 15:29	
1,2-Dichloroethane-d4 (S)	%	104	81-127		11/16/16 15:29	
4-Bromofluorobenzene (S)	%	100	77-130		11/16/16 15:29	
Toluene-d8 (S)	%	101	80-120		11/16/16 15:29	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60232090

LABORATORY CONTROL SAMPLE: 1863097

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	22.3	112	81-116	
1,1,2,2-Tetrachloroethane	ug/L	20	20.0	100	72-117	
1,1,2-Trichloroethane	ug/L	20	21.8	109	79-108	L0
1,1-Dichloroethane	ug/L	20	21.4	107	83-117	
1,1-Dichloroethene	ug/L	20	20.4	102	74-114	
1,2-Dichloroethane	ug/L	20	22.2	111	72-116	
1,2-Dichloropropane	ug/L	20	21.1	105	80-120	
2-Butanone (MEK)	ug/L	100	99.0	99	67-129	
2-Hexanone	ug/L	100	106	106	70-128	
4-Methyl-2-pentanone (MIBK)	ug/L	100	102	102	80-120	
Acetone	ug/L	100	95.4	95	56-142	
Benzene	ug/L	20	21.7	108	79-116	
Bromodichloromethane	ug/L	20	22.1	111	80-120	
Bromoform	ug/L	20	22.5	112	73-114	
Bromomethane	ug/L	20	17.3	86	49-153	
Carbon disulfide	ug/L	20	19.2	96	82-121	
Carbon tetrachloride	ug/L	20	20.7	104	80-116	
Chlorobenzene	ug/L	20	21.8	109	80-120	
Chloroethane	ug/L	20	19.9	99	67-124	
Chloroform	ug/L	20	21.8	109	79-120	
Chloromethane	ug/L	20	14.2	71	10-192	
cis-1,2-Dichloroethene	ug/L	20	19.8	99	80-120	
cis-1,3-Dichloropropene	ug/L	20	19.9	100	80-120	
Dibromochloromethane	ug/L	20	22.7	114	80-120	
Ethylbenzene	ug/L	20	22.3	111	80-120	
Methylene chloride	ug/L	20	18.6	93	80-120	
Styrene	ug/L	20	22.4	112	80-120	
Tetrachloroethene	ug/L	20	21.8	109	80-120	
Toluene	ug/L	20	21.0	105	80-120	
trans-1,2-Dichloroethene	ug/L	20	19.8	99	78-108	
trans-1,3-Dichloropropene	ug/L	20	20.9	105	85-120	
Trichloroethene	ug/L	20	22.2	111	76-114	
Vinyl chloride	ug/L	20	17.8	89	69-129	
Xylene (Total)	ug/L	60	66.5	111	80-120	
1,2-Dichloroethane-d4 (S)	%			96	81-127	
4-Bromofluorobenzene (S)	%			95	77-130	
Toluene-d8 (S)	%			98	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60232090

QC Batch: 455417 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60232090004, 60232090005, 60232090010, 60232090012, 60232090013

METHOD BLANK: 1864721 Matrix: Water
Associated Lab Samples: 60232090004, 60232090005, 60232090010, 60232090012, 60232090013

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	0.11	11/18/16 02:52	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.15	11/18/16 02:52	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.20	11/18/16 02:52	
1,1-Dichloroethane	ug/L	ND	1.0	0.050	11/18/16 02:52	
1,1-Dichloroethene	ug/L	ND	1.0	0.20	11/18/16 02:52	
1,2-Dichloroethane	ug/L	ND	1.0	0.12	11/18/16 02:52	
1,2-Dichloropropane	ug/L	ND	1.0	0.16	11/18/16 02:52	
2-Butanone (MEK)	ug/L	ND	10.0	0.59	11/18/16 02:52	
2-Hexanone	ug/L	ND	10.0	1.2	11/18/16 02:52	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	0.42	11/18/16 02:52	
Acetone	ug/L	ND	10.0	1.9	11/18/16 02:52	
Benzene	ug/L	ND	1.0	0.060	11/18/16 02:52	
Bromodichloromethane	ug/L	ND	1.0	0.19	11/18/16 02:52	
Bromoform	ug/L	ND	1.0	0.070	11/18/16 02:52	
Bromomethane	ug/L	ND	5.0	0.16	11/18/16 02:52	
Carbon disulfide	ug/L	ND	5.0	0.12	11/18/16 02:52	
Carbon tetrachloride	ug/L	ND	1.0	0.18	11/18/16 02:52	
Chlorobenzene	ug/L	ND	1.0	0.21	11/18/16 02:52	
Chloroethane	ug/L	ND	1.0	0.15	11/18/16 02:52	
Chloroform	ug/L	ND	1.0	0.14	11/18/16 02:52	
Chloromethane	ug/L	ND	1.0	0.080	11/18/16 02:52	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.080	11/18/16 02:52	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.14	11/18/16 02:52	
Dibromochloromethane	ug/L	ND	1.0	0.21	11/18/16 02:52	
Ethylbenzene	ug/L	ND	1.0	0.18	11/18/16 02:52	
Methylene chloride	ug/L	ND	1.0	0.15	11/18/16 02:52	
Styrene	ug/L	ND	1.0	0.12	11/18/16 02:52	
Tetrachloroethene	ug/L	ND	1.0	0.10	11/18/16 02:52	
Toluene	ug/L	ND	1.0	0.17	11/18/16 02:52	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.20	11/18/16 02:52	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.12	11/18/16 02:52	
Trichloroethene	ug/L	ND	1.0	0.17	11/18/16 02:52	
Vinyl chloride	ug/L	ND	1.0	0.13	11/18/16 02:52	
Xylene (Total)	ug/L	ND	3.0	0.42	11/18/16 02:52	
1,2-Dichloroethane-d4 (S)	%	102	81-127		11/18/16 02:52	
4-Bromofluorobenzene (S)	%	97	77-130		11/18/16 02:52	
Toluene-d8 (S)	%	99	80-120		11/18/16 02:52	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60232090

LABORATORY CONTROL SAMPLE: 1864722

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	24.8	124	81-116	L0
1,1,2,2-Tetrachloroethane	ug/L	20	19.2	96	72-117	
1,1,2-Trichloroethane	ug/L	20	21.4	107	79-108	
1,1-Dichloroethane	ug/L	20	22.5	112	83-117	
1,1-Dichloroethene	ug/L	20	22.2	111	74-114	
1,2-Dichloroethane	ug/L	20	21.8	109	72-116	
1,2-Dichloropropane	ug/L	20	22.5	112	80-120	
2-Butanone (MEK)	ug/L	100	101	101	67-129	
2-Hexanone	ug/L	100	97.1	97	70-128	
4-Methyl-2-pentanone (MIBK)	ug/L	100	101	101	80-120	
Acetone	ug/L	100	95.7	96	56-142	
Benzene	ug/L	20	24.3	122	79-116	L0
Bromodichloromethane	ug/L	20	23.2	116	80-120	
Bromoform	ug/L	20	21.5	107	73-114	
Bromomethane	ug/L	20	15.5	78	49-153	
Carbon disulfide	ug/L	20	21.8	109	82-121	
Carbon tetrachloride	ug/L	20	23.9	120	80-116	L0
Chlorobenzene	ug/L	20	21.2	106	80-120	
Chloroethane	ug/L	20	22.9	114	67-124	
Chloroform	ug/L	20	23.3	116	79-120	
Chloromethane	ug/L	20	18.8	94	10-192	
cis-1,2-Dichloroethene	ug/L	20	22.2	111	80-120	
cis-1,3-Dichloropropene	ug/L	20	20.4	102	80-120	
Dibromochloromethane	ug/L	20	22.1	110	80-120	
Ethylbenzene	ug/L	20	22.3	112	80-120	
Methylene chloride	ug/L	20	20.2	101	80-120	
Styrene	ug/L	20	22.4	112	80-120	
Tetrachloroethene	ug/L	20	23.4	117	80-120	
Toluene	ug/L	20	21.0	105	80-120	
trans-1,2-Dichloroethene	ug/L	20	21.8	109	78-108	L0
trans-1,3-Dichloropropene	ug/L	20	20.0	100	85-120	
Trichloroethene	ug/L	20	24.3	122	76-114	L0
Vinyl chloride	ug/L	20	22.6	113	69-129	
Xylene (Total)	ug/L	60	65.3	109	80-120	
1,2-Dichloroethane-d4 (S)	%			101	81-127	
4-Bromofluorobenzene (S)	%			101	77-130	
Toluene-d8 (S)	%			93	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60232090

QC Batch: 455629 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60232090002, 60232090003, 60232090004, 60232090005, 60232090006, 60232090007, 60232090008, 60232090009, 60232090010, 60232090011, 60232090012

METHOD BLANK: 1865619 Matrix: Water
Associated Lab Samples: 60232090002, 60232090003, 60232090004, 60232090005, 60232090006, 60232090007, 60232090008, 60232090009, 60232090010, 60232090011, 60232090012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	0.11	11/19/16 11:49	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.15	11/19/16 11:49	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.20	11/19/16 11:49	
1,1-Dichloroethane	ug/L	ND	1.0	0.050	11/19/16 11:49	
1,1-Dichloroethene	ug/L	ND	1.0	0.20	11/19/16 11:49	
1,2-Dichloroethane	ug/L	ND	1.0	0.12	11/19/16 11:49	
1,2-Dichloropropane	ug/L	ND	1.0	0.16	11/19/16 11:49	
2-Butanone (MEK)	ug/L	ND	10.0	0.59	11/19/16 11:49	
2-Hexanone	ug/L	ND	10.0	1.2	11/19/16 11:49	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	0.42	11/19/16 11:49	
Acetone	ug/L	ND	10.0	1.9	11/19/16 11:49	
Benzene	ug/L	ND	1.0	0.060	11/19/16 11:49	
Bromodichloromethane	ug/L	ND	1.0	0.19	11/19/16 11:49	
Bromoform	ug/L	ND	1.0	0.070	11/19/16 11:49	
Bromomethane	ug/L	ND	5.0	0.16	11/19/16 11:49	
Carbon disulfide	ug/L	0.16J	5.0	0.12	11/19/16 11:49	
Carbon tetrachloride	ug/L	ND	1.0	0.18	11/19/16 11:49	
Chlorobenzene	ug/L	ND	1.0	0.21	11/19/16 11:49	
Chloroethane	ug/L	ND	1.0	0.15	11/19/16 11:49	
Chloroform	ug/L	ND	1.0	0.14	11/19/16 11:49	
Chloromethane	ug/L	ND	1.0	0.080	11/19/16 11:49	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.080	11/19/16 11:49	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.14	11/19/16 11:49	
Dibromochloromethane	ug/L	ND	1.0	0.21	11/19/16 11:49	
Ethylbenzene	ug/L	ND	1.0	0.18	11/19/16 11:49	
Methylene chloride	ug/L	ND	1.0	0.15	11/19/16 11:49	
Styrene	ug/L	ND	1.0	0.12	11/19/16 11:49	
Tetrachloroethene	ug/L	ND	1.0	0.10	11/19/16 11:49	
Toluene	ug/L	ND	1.0	0.17	11/19/16 11:49	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.20	11/19/16 11:49	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.12	11/19/16 11:49	
Trichloroethene	ug/L	ND	1.0	0.17	11/19/16 11:49	
Vinyl chloride	ug/L	ND	1.0	0.13	11/19/16 11:49	
Xylene (Total)	ug/L	ND	3.0	0.42	11/19/16 11:49	
1,2-Dichloroethane-d4 (S)	%	94	81-127		11/19/16 11:49	
4-Bromofluorobenzene (S)	%	95	77-130		11/19/16 11:49	
Toluene-d8 (S)	%	112	80-120		11/19/16 11:49	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60232090

LABORATORY CONTROL SAMPLE: 1865620

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	17.7	89	81-116	
1,1,2,2-Tetrachloroethane	ug/L	20	18.4	92	72-117	
1,1,2-Trichloroethane	ug/L	20	19.4	97	79-108	
1,1-Dichloroethane	ug/L	20	18.0	90	83-117	
1,1-Dichloroethene	ug/L	20	19.5	98	74-114	
1,2-Dichloroethane	ug/L	20	16.9	84	72-116	
1,2-Dichloropropane	ug/L	20	19.0	95	80-120	
2-Butanone (MEK)	ug/L	100	71.0	71	67-129	
2-Hexanone	ug/L	100	90.8	91	70-128	
4-Methyl-2-pentanone (MIBK)	ug/L	100	82.8	83	80-120	
Acetone	ug/L	100	73.8	74	56-142	
Benzene	ug/L	20	17.3	86	79-116	
Bromodichloromethane	ug/L	20	19.6	98	80-120	
Bromoform	ug/L	20	19.6	98	73-114	
Bromomethane	ug/L	20	17.1	85	49-153	
Carbon disulfide	ug/L	20	17.8	89	82-121	
Carbon tetrachloride	ug/L	20	17.5	88	80-116	
Chlorobenzene	ug/L	20	19.5	98	80-120	
Chloroethane	ug/L	20	19.3	97	67-124	
Chloroform	ug/L	20	18.0	90	79-120	
Chloromethane	ug/L	20	16.8	84	10-192	
cis-1,2-Dichloroethene	ug/L	20	16.0	80	80-120	
cis-1,3-Dichloropropene	ug/L	20	17.0	85	80-120	
Dibromochloromethane	ug/L	20	20.1	100	80-120	
Ethylbenzene	ug/L	20	19.8	99	80-120	
Methylene chloride	ug/L	20	19.0	95	80-120	
Styrene	ug/L	20	19.7	99	80-120	
Tetrachloroethene	ug/L	20	20.1	100	80-120	
Toluene	ug/L	20	19.1	95	80-120	
trans-1,2-Dichloroethene	ug/L	20	17.7	88	78-108	
trans-1,3-Dichloropropene	ug/L	20	19.9	99	85-120	
Trichloroethene	ug/L	20	18.9	94	76-114	
Vinyl chloride	ug/L	20	18.4	92	69-129	
Xylene (Total)	ug/L	60	58.0	97	80-120	
1,2-Dichloroethane-d4 (S)	%			86	81-127	
4-Bromofluorobenzene (S)	%			94	77-130	
Toluene-d8 (S)	%			103	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60232090

QC Batch: 455887 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60232090002, 60232090003, 60232090006, 60232090007, 60232090008, 60232090009

METHOD BLANK: 1866927 Matrix: Water
Associated Lab Samples: 60232090002, 60232090003, 60232090006, 60232090007, 60232090008, 60232090009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	0.11	11/21/16 15:01	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.15	11/21/16 15:01	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.20	11/21/16 15:01	
1,1-Dichloroethane	ug/L	ND	1.0	0.050	11/21/16 15:01	
1,1-Dichloroethene	ug/L	ND	1.0	0.20	11/21/16 15:01	
1,2-Dichloroethane	ug/L	ND	1.0	0.12	11/21/16 15:01	
1,2-Dichloropropane	ug/L	ND	1.0	0.16	11/21/16 15:01	
2-Butanone (MEK)	ug/L	ND	10.0	0.59	11/21/16 15:01	
2-Hexanone	ug/L	ND	10.0	1.2	11/21/16 15:01	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	0.42	11/21/16 15:01	
Acetone	ug/L	ND	10.0	1.9	11/21/16 15:01	
Benzene	ug/L	ND	1.0	0.060	11/21/16 15:01	
Bromodichloromethane	ug/L	ND	1.0	0.19	11/21/16 15:01	
Bromoform	ug/L	ND	1.0	0.070	11/21/16 15:01	
Bromomethane	ug/L	ND	5.0	0.16	11/21/16 15:01	
Carbon disulfide	ug/L	ND	5.0	0.12	11/21/16 15:01	
Carbon tetrachloride	ug/L	ND	1.0	0.18	11/21/16 15:01	
Chlorobenzene	ug/L	ND	1.0	0.21	11/21/16 15:01	
Chloroethane	ug/L	ND	1.0	0.15	11/21/16 15:01	
Chloroform	ug/L	ND	1.0	0.14	11/21/16 15:01	
Chloromethane	ug/L	ND	1.0	0.080	11/21/16 15:01	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.080	11/21/16 15:01	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.14	11/21/16 15:01	
Dibromochloromethane	ug/L	ND	1.0	0.21	11/21/16 15:01	
Ethylbenzene	ug/L	ND	1.0	0.18	11/21/16 15:01	
Methylene chloride	ug/L	ND	1.0	0.15	11/21/16 15:01	
Styrene	ug/L	ND	1.0	0.12	11/21/16 15:01	
Tetrachloroethene	ug/L	ND	1.0	0.10	11/21/16 15:01	
Toluene	ug/L	ND	1.0	0.17	11/21/16 15:01	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.20	11/21/16 15:01	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.12	11/21/16 15:01	
Trichloroethene	ug/L	ND	1.0	0.17	11/21/16 15:01	
Vinyl chloride	ug/L	ND	1.0	0.13	11/21/16 15:01	
Xylene (Total)	ug/L	ND	3.0	0.42	11/21/16 15:01	
1,2-Dichloroethane-d4 (S)	%	103	81-127		11/21/16 15:01	
4-Bromofluorobenzene (S)	%	86	77-130		11/21/16 15:01	
Toluene-d8 (S)	%	99	80-120		11/21/16 15:01	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60232090

LABORATORY CONTROL SAMPLE: 1866928

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	20.0	100	81-116	
1,1,2,2-Tetrachloroethane	ug/L	20	19.0	95	72-117	
1,1,2-Trichloroethane	ug/L	20	20.2	101	79-108	
1,1-Dichloroethane	ug/L	20	19.7	99	83-117	
1,1-Dichloroethene	ug/L	20	19.0	95	74-114	
1,2-Dichloroethane	ug/L	20	19.7	99	72-116	
1,2-Dichloropropane	ug/L	20	20.2	101	80-120	
2-Butanone (MEK)	ug/L	100	95.2	95	67-129	
2-Hexanone	ug/L	100	105	105	70-128	
4-Methyl-2-pentanone (MIBK)	ug/L	100	110	110	80-120	
Acetone	ug/L	100	96.5	97	56-142	
Benzene	ug/L	20	19.5	98	79-116	
Bromodichloromethane	ug/L	20	21.3	106	80-120	
Bromoform	ug/L	20	21.5	107	73-114	
Bromomethane	ug/L	20	14.8	74	49-153	
Carbon disulfide	ug/L	20	18.1	90	82-121	
Carbon tetrachloride	ug/L	20	19.4	97	80-116	
Chlorobenzene	ug/L	20	20.0	100	80-120	
Chloroethane	ug/L	20	22.3	112	67-124	
Chloroform	ug/L	20	18.7	93	79-120	
Chloromethane	ug/L	20	35.0	175	10-192	
cis-1,2-Dichloroethene	ug/L	20	17.9	90	80-120	
cis-1,3-Dichloropropene	ug/L	20	19.8	99	80-120	
Dibromochloromethane	ug/L	20	20.4	102	80-120	
Ethylbenzene	ug/L	20	20.6	103	80-120	
Methylene chloride	ug/L	20	22.4	112	80-120	
Styrene	ug/L	20	20.8	104	80-120	
Tetrachloroethene	ug/L	20	19.6	98	80-120	
Toluene	ug/L	20	19.8	99	80-120	
trans-1,2-Dichloroethene	ug/L	20	19.9	100	78-108	
trans-1,3-Dichloropropene	ug/L	20	19.7	99	85-120	
Trichloroethene	ug/L	20	19.7	98	76-114	
Vinyl chloride	ug/L	20	20.6	103	69-129	
Xylene (Total)	ug/L	60	61.0	102	80-120	
1,2-Dichloroethane-d4 (S)	%			97	81-127	
4-Bromofluorobenzene (S)	%			96	77-130	
Toluene-d8 (S)	%			101	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60232090

QC Batch: 455341 Analysis Method: SM 2320B
QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity
Associated Lab Samples: 60232090008, 60232090009

METHOD BLANK: 1864524 Matrix: Water
Associated Lab Samples: 60232090008, 60232090009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Carbonate (CaCO3)	mg/L	ND	20.0	4.9	11/17/16 11:06	
Alkalinity, Total as CaCO3	mg/L	ND	20.0	4.9	11/17/16 11:06	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	20.0	4.9	11/17/16 11:06	

LABORATORY CONTROL SAMPLE: 1864525

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	500	527	105	90-110	

SAMPLE DUPLICATE: 1864526

Parameter	Units	60232095001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Carbonate (CaCO3)	mg/L	ND	ND		10	
Alkalinity, Total as CaCO3	mg/L	78.6	80.9	3	10	
Alkalinity,Bicarbonate (CaCO3)	mg/L	78.6	80.9	3	10	

SAMPLE DUPLICATE: 1864528

Parameter	Units	60232095005 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Carbonate (CaCO3)	mg/L	ND	ND		10	
Alkalinity, Total as CaCO3	mg/L	81.0	82.6	2	10	
Alkalinity,Bicarbonate (CaCO3)	mg/L	81.0	82.6	2	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60232090

QC Batch: 455130 Analysis Method: SM 4500-S-2 D
QC Batch Method: SM 4500-S-2 D Analysis Description: 4500S2D Sulfide, Total
Associated Lab Samples: 60232090008, 60232090009

METHOD BLANK: 1863634 Matrix: Water
Associated Lab Samples: 60232090008, 60232090009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide, Total	mg/L	ND	0.050	0.019	11/16/16 13:48	

LABORATORY CONTROL SAMPLE: 1863635

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	.5	0.50	99	80-120	

MATRIX SPIKE SAMPLE: 1863636

Parameter	Units	60232090008 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	ND	.5	0.40	80	75-125	

SAMPLE DUPLICATE: 1863637

Parameter	Units	60232090009 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Total	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60232090

QC Batch: 455759 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 60232090008

METHOD BLANK: 1866326 Matrix: Water
Associated Lab Samples: 60232090008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfate	mg/L	ND	1.0	0.15	11/20/16 17:13	

LABORATORY CONTROL SAMPLE: 1866327

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	5	4.9	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1866328 1866329

Parameter	Units	60232259001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	3.8	5	5	9.5	9.5	114	114	80-120	0	15	

MATRIX SPIKE SAMPLE: 1866330

Parameter	Units	60232095001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	662	250	969	123	80-120	M1

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60232090

QC Batch: 456029 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 60232090008, 60232090009

METHOD BLANK: 1867279 Matrix: Water
Associated Lab Samples: 60232090008, 60232090009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.50	11/22/16 08:40	
Sulfate	mg/L	ND	1.0	0.15	11/22/16 08:40	

LABORATORY CONTROL SAMPLE: 1867280

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	5	4.7	95	90-110	
Sulfate	mg/L	5	4.9	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1867281 1867282

Parameter	Units	60232089001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	10.9	5	5	13.1	13.2	44	46	80-120	1	15	M1
Sulfate	mg/L	9.8	5	5	12.0	12.1	43	46	80-120	1	15	M1

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60232090

QC Batch: 455821 Analysis Method: EPA 350.1
QC Batch Method: EPA 350.1 Analysis Description: 350.1 Ammonia
Associated Lab Samples: 60232090008, 60232090009

METHOD BLANK: 1866775 Matrix: Water
Associated Lab Samples: 60232090008, 60232090009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	ND	0.10	0.013	11/21/16 10:12	

LABORATORY CONTROL SAMPLE: 1866776

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	5	5.0	100	90-110	

MATRIX SPIKE SAMPLE: 1866777

Parameter	Units	60231854004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	288	125	412	99	90-110	

MATRIX SPIKE SAMPLE: 1866779

Parameter	Units	60232035001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	16.1	5	20.8	95	90-110	

SAMPLE DUPLICATE: 1866778

Parameter	Units	60231797002 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Ammonia	mg/L	ND	ND		18	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60232090

QC Batch: 455835 Analysis Method: SM 5310C
QC Batch Method: SM 5310C Analysis Description: 5310C Total Organic Carbon
Associated Lab Samples: 60232090008, 60232090009

METHOD BLANK: 1866815 Matrix: Water
Associated Lab Samples: 60232090008, 60232090009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	0.10J	1.0	0.054	11/21/16 09:35	

LABORATORY CONTROL SAMPLE: 1866816

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	5	5.0	100	80-120	

MATRIX SPIKE SAMPLE: 1866818

Parameter	Units	60232095001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	ND	5	5.9	104	80-120	

SAMPLE DUPLICATE: 1866817

Parameter	Units	60232090008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Organic Carbon	mg/L	0.33J	0.30J		25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALIFIERS

Project: FORT SMITH, AR
Pace Project No.: 60232090

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-K	Pace Analytical Services - Kansas City

BATCH QUALIFIERS

Batch: 454974

[M5]	A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: 455417

[M5]	A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: 455629

[M5]	A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: 455887

[M5]	A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L1	Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
L3	Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: FORT SMITH, AR
Pace Project No.: 60232090

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60232090008	**MW-58-201611**	EPA 3010	454946	EPA 6010	455031
60232090009	**MW-38-201611**	EPA 3010	454946	EPA 6010	455031
60232090001	**EB-03-201611**	EPA 5030B/8260	454974		
60232090002	**ITMW-5-201611**	EPA 5030B/8260	455629		
60232090002	**ITMW-5-201611**	EPA 5030B/8260	455887		
60232090003	**DUP-06-201611**	EPA 5030B/8260	455629		
60232090003	**DUP-06-201611**	EPA 5030B/8260	455887		
60232090004	**ITMW-7-201611**	EPA 5030B/8260	455417		
60232090004	**ITMW-7-201611**	EPA 5030B/8260	455629		
60232090005	**MW-178-201611**	EPA 5030B/8260	455417		
60232090005	**MW-178-201611**	EPA 5030B/8260	455629		
60232090006	**MW-91-201611**	EPA 5030B/8260	455629		
60232090006	**MW-91-201611**	EPA 5030B/8260	455887		
60232090007	**DUP-03-201611**	EPA 5030B/8260	455629		
60232090007	**DUP-03-201611**	EPA 5030B/8260	455887		
60232090008	**MW-58-201611**	EPA 5030B/8260	455629		
60232090008	**MW-58-201611**	EPA 5030B/8260	455887		
60232090009	**MW-38-201611**	EPA 5030B/8260	455629		
60232090009	**MW-38-201611**	EPA 5030B/8260	455887		
60232090010	**ITMW-1-201611**	EPA 5030B/8260	455417		
60232090010	**ITMW-1-201611**	EPA 5030B/8260	455629		
60232090011	**ITMW-10-201611**	EPA 5030B/8260	455629		
60232090012	**DUP-04-201611**	EPA 5030B/8260	455417		
60232090012	**DUP-04-201611**	EPA 5030B/8260	455629		
60232090013	**TB-05-201611**	EPA 5030B/8260	455417		
60232090008	**MW-58-201611**	SM 2320B	455341		
60232090009	**MW-38-201611**	SM 2320B	455341		
60232090008	**MW-58-201611**	SM 4500-S-2 D	455130		
60232090009	**MW-38-201611**	SM 4500-S-2 D	455130		
60232090008	**MW-58-201611**	EPA 300.0	455759		
60232090008	**MW-58-201611**	EPA 300.0	456029		
60232090009	**MW-38-201611**	EPA 300.0	456029		
60232090008	**MW-58-201611**	EPA 350.1	455821		
60232090009	**MW-38-201611**	EPA 350.1	455821		
60232090008	**MW-58-201611**	SM 5310C	455835		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: FORT SMITH, AR
Pace Project No.: 60232090

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60232090009	**MW-38-201611**	SM 5310C	455835		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical
www.pacelabs.com

Sample Condition Upon Receipt

WO#: 60232090

60232090

Client Name: Environ

Courier: FedEx ☐ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☐ Client ☐ Other ☐

Tracking #: _____ Pace Shipping Label Used? Yes ☐ No ☑

Custody Seal on Cooler/Box Present: Yes ☐ No ☑ Seals intact: Yes ☐ No ☑

Packing Material: Bubble Wrap ☐ Bubble Bags ☑ Foam ☐ None ☐ Other ☐

Thermometer Used: CF +0.7 T-266 / CF -0.5 T-239 **Type of Ice:** (Wet) Blue None

Cooler Temperature (°C): As-read 8.7 Corr. Factor CF +0.7 / CF -0.5 Corrected 9.4

Date and initials of person examining contents: pw 11/11/16

Temperature should be above freezing to 6°C

Chain of Custody present:	☑Yes ☐No ☐N/A	
Chain of Custody relinquished:	☑Yes ☐No ☐N/A	MW-17B is listed twice
Samples arrived within holding time:	☑Yes ☐No ☐N/A	on COC.
Short Hold Time analyses (<72hr):	☐Yes ☑No ☐N/A	
Rush Turn Around Time requested:	☐Yes ☑No ☐N/A	ITMW-9-20161' container
Sufficient volume:	☑Yes ☐No ☐N/A	ID is ITMW-7-20161'.
Correct containers used:	☑Yes ☐No ☐N/A	
Pace containers used:	☑Yes ☐No ☐N/A	
Containers intact:	☑Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☑N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☑N/A	
Sample labels match COC: Date / time / ID / analyses	☑Yes ☐No ☐N/A	Client selected multiple analyses for
Samples contain multiple phases? Matrix: WT	☐Yes ☑No ☐N/A	Dup 3. Corresponding volume received for
Containers requiring pH preservation in compliance?	☑Yes ☐No ☐N/A	MW-58 & MW-38
(HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO)		
Cyanide water sample checks: ☑N/A		
Lead acetate strip turns dark? (Record only)	☐Yes ☐No	
Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No	
Trip Blank present: cooler	☑Yes ☐No ☐N/A	
Headspace in VOA vials (>6mm):	☐Yes ☑No ☐N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☑N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☑N/A	

Client Notification/ Resolution: Copy COC to Client? Y / (N) Field Data Required? Y / (N)

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: Notified Environ of sample ID discrepancies. CMC 11/14/16

Per Tammy - ITMW-9-20161' should be ITMW-7-20161'. No phosphate needed. CMC 11/17/16

Project Manager Review: CMC Date: 11/15/16

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: of 2

Section A Required Client Information:

Company:	Environ
Address:	7500 College Blvd., Ste. 925
	Overland Park, KS 66210
Email To:	wstonestreet@environcorp.com
Phone: 913-553-5926	Fax:
Requested Due Date/TAT:	

Section B Required Project Information:

Report To:	Wendy Stonestreet
Copy To:	Tammy Gleason
Purchase Order No.:	NA
Project Name:	Fort Smith, AR
Project Number:	

Section C Invoice Information:

Attention:	Tammy Gleason
Company Name:	Environ
Address:	250 Monroe Ave. NW Grand Rapids
Pace Quote Reference:	Michigan, 49503
Pace Project Manager:	Colleen Clyne
Pace Profile #:	7444, line 1

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☑ OTHER ADEQ

Site Location STATE: AR

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	8260 VOCs	Alkalinity	TOC	Chloride, Sulfate	8015 Chloroethanol (Pace Dallas)	8310 Iron/Mn Metals	Ferric Iron calc. (send field Ferrous)	Ammonia	Nitrate+Nitrite	Total Phosphate (Pace Dallas)	Sulfide	CO2 Calc (Alkalinity + field pH)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	EB-03-201611	WT	G			11/10/16	1105		3				3						3											60232090
2	ITMW-5-201611	WT	G			11/10/16	1015		3				3						3											
3	Dup-06-201611	WT	G			11/10/16	1015		3				3						3											
4	ITMW-9-201611	WT	G			11/10/16	0910		3				3						3											
5	MW-178-201611	WT	G			11/10/16	1030		3				3						3											
6	MW-91-201611	WT	G			11/10/16	0905		3				3						3											
7	Dup-03-201611	WT	G			11/10/16	0905		3				3						3	X	X	X	X	X	X	X	X	X		
8	MW-58-201611	WT	G			11/10/16	0925	VS	9	X	X	X	X	X	X				8	X	X	X	X	X	X	X	X	X		
9	MW-38-201611	WT	G			11/10/16	1205	VS	9	X	X	X	X	X	X				3											
10	MW-178-201611	WT	G			11/10/16	1036		3				3						3											
11	ITMW-1-201611	WT	G			11/10/16	0900		3				3						3											
12	ITMW-10-201611	WT	G			11/10/16	1037		3				3						3											

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Victoria Stegall RE	11/10/16	1800		11/10	1800	9.4 Y Y Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Victoria Stegall

SIGNATURE of SAMPLER: Victoria Stegall DATE Signed (MM/DD/YY): 11/10/16

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-Feb-2007

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Environ	Report To:	Wendy Stonestreet	Attention:	Tammy Gleason
Address:	7500 College Blvd., Ste. 925	Copy To:	Tammy Gleason	Company Name:	Environ
	Overland Park, KS 66210			Address:	250 Monroe Ave. NW Grand Rapids
Email To:	wstonestreet@environcorp.com	Purchase Order No.:	NA	Pace Quote Reference:	Michigan, 49503
Phone:	913-553-5926 Fax:	Project Name:	Fort Smith, AR	Pace Project Manager:	Colleen Clyne
Requested Due Date/TAT:		Project Number:		Pace Profile #:	7444, line 1

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER

☐ UST ☐ RCRA ☑ OTHER ADEQ

Site Location STATE: AR

Requested Analysis Filtered (Y/N)

ITEM #	Section D Required Client Information: SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	Valid Matrix Codes: MATRIX / CODE (DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	8260 VOCs	Alkalinity	TOC	Chloride, Sulfate	8015 Chloroethanol (Pace Dallas)	6010-Iron/Mn	Ferric Iron calc. (send field Ferrous)	Ammonia	Nitrate+Nitrite	Total Phosphate (Pace Dallas)	Sulfide	CO2 Calc (Alkalinity + field pH)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	Dup-04-20161l		WT	G			11/10/16	0900		3				3							3													36971 612
2	TB-05-20161l		WT	G			11/10/16	—		2				2							2													36974 013
3																																		
4																																		
5																																		
6																																		
7																																		
8																																		
9																																		
10																																		
11																																		
12									15																									

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Victoria Sign RES	11/10/16	1800		11/10	1800	0.4	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Victoria Sign

SIGNATURE of SAMPLER: Victoria Sign DATE Signed (MM/DD/YY): 11/10/16

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

December 19, 2016

Tamara Gleason
Ramboll Environ
250 Monroe Ave. NW
Ste 400
Grand Rapids, MI 49503

RE: Project: FORT SMITH, AR
Pace Project No.: 60234409

Dear Tamara Gleason:
Enclosed are the analytical results for sample(s) received by the laboratory on December 15, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Colleen Clyne
colleen.clyne@pacelabs.com
Project Manager

Enclosures

cc: Johanna Pavlowsky, Ramboll Environ

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

CERTIFICATIONS

Project: FORT SMITH, AR
Pace Project No.: 60234409

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219
WY STR Certification #: 2456.01
Arkansas Certification #: 15-016-0
Illinois Certification #: 003097
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407
Utah Certification #: KS00021
Kansas Field Laboratory Accreditation: # E-92587
Missouri Certification: 10070

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE SUMMARY

Project: FORT SMITH, AR
Pace Project No.: 60234409

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60234409001	**ITMW-9-201612**	Water	12/14/16 15:20	12/15/16 10:05
60234409002	**MW-58R-201612**	Water	12/14/16 13:28	12/15/16 10:05
60234409003	**TB-1-201612**	Water	12/14/16 13:28	12/15/16 10:05

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE ANALYTE COUNT

Project: FORT SMITH, AR
Pace Project No.: 60234409

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60234409001	**ITMW-9-201612**	EPA 5030B/8260	PGH	38	PASI-K
60234409002	**MW-58R-201612**	EPA 5030B/8260	PGH	38	PASI-K
60234409003	**TB-1-201612**	EPA 5030B/8260	PGH	38	PASI-K

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: FORT SMITH, AR
Pace Project No.: 60234409

Method: **EPA 5030B/8260**
Description: 8260 MSV
Client: Ramboll Environ_AR
Date: December 19, 2016

General Information:
3 samples were analyzed for EPA 5030B/8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 459457

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60234409

Sample: ITMW-9-201612 **Lab ID: 60234409001** Collected: 12/14/16 15:20 Received: 12/15/16 10:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		12/19/16 10:44	67-64-1	
Benzene	**0.23J**	ug/L	1.0	0.060	1		12/19/16 10:44	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		12/19/16 10:44	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		12/19/16 10:44	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		12/19/16 10:44	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		12/19/16 10:44	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		12/19/16 10:44	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		12/19/16 10:44	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		12/19/16 10:44	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		12/19/16 10:44	75-00-3	
Chloroform	**0.21J**	ug/L	1.0	0.14	1		12/19/16 10:44	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		12/19/16 10:44	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		12/19/16 10:44	124-48-1	
1,1-Dichloroethane	**1.8**	ug/L	1.0	0.050	1		12/19/16 10:44	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		12/19/16 10:44	107-06-2	
1,1-Dichloroethene	**2.2**	ug/L	1.0	0.20	1		12/19/16 10:44	75-35-4	
cis-1,2-Dichloroethene	**40.1**	ug/L	1.0	0.080	1		12/19/16 10:44	156-59-2	
trans-1,2-Dichloroethene	**0.84J**	ug/L	1.0	0.20	1		12/19/16 10:44	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		12/19/16 10:44	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		12/19/16 10:44	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		12/19/16 10:44	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		12/19/16 10:44	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		12/19/16 10:44	591-78-6	
Methylene chloride	**0.60J**	ug/L	1.0	0.15	1		12/19/16 10:44	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		12/19/16 10:44	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		12/19/16 10:44	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		12/19/16 10:44	79-34-5	
Tetrachloroethene	**0.47J**	ug/L	1.0	0.10	1		12/19/16 10:44	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		12/19/16 10:44	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		12/19/16 10:44	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		12/19/16 10:44	79-00-5	
Trichloroethene	**193**	ug/L	1.0	0.17	1		12/19/16 10:44	79-01-6	
Vinyl chloride	**1.0**	ug/L	1.0	0.13	1		12/19/16 10:44	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		12/19/16 10:44	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	77-130		1		12/19/16 10:44	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	81-127		1		12/19/16 10:44	17060-07-0	
Toluene-d8 (S)	105	%	80-120		1		12/19/16 10:44	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		12/19/16 10:44		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60234409

Sample: MW-58R-201612 **Lab ID: 60234409002** Collected: 12/14/16 13:28 Received: 12/15/16 10:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		12/19/16 10:58	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		12/19/16 10:58	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		12/19/16 10:58	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		12/19/16 10:58	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		12/19/16 10:58	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		12/19/16 10:58	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		12/19/16 10:58	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		12/19/16 10:58	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		12/19/16 10:58	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		12/19/16 10:58	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		12/19/16 10:58	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		12/19/16 10:58	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		12/19/16 10:58	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		12/19/16 10:58	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		12/19/16 10:58	107-06-2	
1,1-Dichloroethene	**1.7**	ug/L	1.0	0.20	1		12/19/16 10:58	75-35-4	
cis-1,2-Dichloroethene	**30.3**	ug/L	1.0	0.080	1		12/19/16 10:58	156-59-2	
trans-1,2-Dichloroethene	**0.68J**	ug/L	1.0	0.20	1		12/19/16 10:58	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		12/19/16 10:58	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		12/19/16 10:58	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		12/19/16 10:58	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		12/19/16 10:58	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		12/19/16 10:58	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		12/19/16 10:58	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		12/19/16 10:58	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		12/19/16 10:58	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		12/19/16 10:58	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		12/19/16 10:58	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		12/19/16 10:58	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		12/19/16 10:58	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		12/19/16 10:58	79-00-5	
Trichloroethene	**265**	ug/L	5.0	0.85	5		12/19/16 11:26	79-01-6	
Vinyl chloride	**0.61J**	ug/L	1.0	0.13	1		12/19/16 10:58	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		12/19/16 10:58	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	94	%	77-130		1		12/19/16 10:58	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	81-127		1		12/19/16 10:58	17060-07-0	
Toluene-d8 (S)	105	%	80-120		1		12/19/16 10:58	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		12/19/16 10:58		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: FORT SMITH, AR
Pace Project No.: 60234409

Sample: TB-1-201612 **Lab ID: 60234409003** Collected: 12/14/16 13:28 Received: 12/15/16 10:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
Acetone	ND	ug/L	10.0	1.9	1		12/19/16 10:15	67-64-1	
Benzene	ND	ug/L	1.0	0.060	1		12/19/16 10:15	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	0.19	1		12/19/16 10:15	75-27-4	
Bromoform	ND	ug/L	1.0	0.070	1		12/19/16 10:15	75-25-2	
Bromomethane	ND	ug/L	5.0	0.16	1		12/19/16 10:15	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.59	1		12/19/16 10:15	78-93-3	
Carbon disulfide	ND	ug/L	5.0	0.12	1		12/19/16 10:15	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.18	1		12/19/16 10:15	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.21	1		12/19/16 10:15	108-90-7	
Chloroethane	ND	ug/L	1.0	0.15	1		12/19/16 10:15	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		12/19/16 10:15	67-66-3	
Chloromethane	ND	ug/L	1.0	0.080	1		12/19/16 10:15	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		12/19/16 10:15	124-48-1	
1,1-Dichloroethane	ND	ug/L	1.0	0.050	1		12/19/16 10:15	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		12/19/16 10:15	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.20	1		12/19/16 10:15	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.080	1		12/19/16 10:15	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.20	1		12/19/16 10:15	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.16	1		12/19/16 10:15	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	1		12/19/16 10:15	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.12	1		12/19/16 10:15	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.18	1		12/19/16 10:15	100-41-4	
2-Hexanone	ND	ug/L	10.0	1.2	1		12/19/16 10:15	591-78-6	
Methylene chloride	ND	ug/L	1.0	0.15	1		12/19/16 10:15	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.42	1		12/19/16 10:15	108-10-1	
Styrene	ND	ug/L	1.0	0.12	1		12/19/16 10:15	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		12/19/16 10:15	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.10	1		12/19/16 10:15	127-18-4	
Toluene	ND	ug/L	1.0	0.17	1		12/19/16 10:15	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		12/19/16 10:15	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.20	1		12/19/16 10:15	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.17	1		12/19/16 10:15	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.13	1		12/19/16 10:15	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.42	1		12/19/16 10:15	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	98	%	77-130		1		12/19/16 10:15	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	81-127		1		12/19/16 10:15	17060-07-0	
Toluene-d8 (S)	105	%	80-120		1		12/19/16 10:15	2037-26-5	
Preservation pH	**1.0**		0.10	0.10	1		12/19/16 10:15		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60234409

QC Batch: 459457 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60234409001, 60234409002, 60234409003

METHOD BLANK: 1881325 Matrix: Water
Associated Lab Samples: 60234409001, 60234409002, 60234409003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	0.11	12/19/16 09:47	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.15	12/19/16 09:47	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.20	12/19/16 09:47	
1,1-Dichloroethane	ug/L	ND	1.0	0.050	12/19/16 09:47	
1,1-Dichloroethene	ug/L	ND	1.0	0.20	12/19/16 09:47	
1,2-Dichloroethane	ug/L	ND	1.0	0.12	12/19/16 09:47	
1,2-Dichloropropane	ug/L	ND	1.0	0.16	12/19/16 09:47	
2-Butanone (MEK)	ug/L	ND	10.0	0.59	12/19/16 09:47	
2-Hexanone	ug/L	ND	10.0	1.2	12/19/16 09:47	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	0.42	12/19/16 09:47	
Acetone	ug/L	ND	10.0	1.9	12/19/16 09:47	
Benzene	ug/L	ND	1.0	0.060	12/19/16 09:47	
Bromodichloromethane	ug/L	ND	1.0	0.19	12/19/16 09:47	
Bromoform	ug/L	ND	1.0	0.070	12/19/16 09:47	
Bromomethane	ug/L	ND	5.0	0.16	12/19/16 09:47	
Carbon disulfide	ug/L	ND	5.0	0.12	12/19/16 09:47	
Carbon tetrachloride	ug/L	ND	1.0	0.18	12/19/16 09:47	
Chlorobenzene	ug/L	ND	1.0	0.21	12/19/16 09:47	
Chloroethane	ug/L	ND	1.0	0.15	12/19/16 09:47	
Chloroform	ug/L	ND	1.0	0.14	12/19/16 09:47	
Chloromethane	ug/L	ND	1.0	0.080	12/19/16 09:47	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.080	12/19/16 09:47	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.14	12/19/16 09:47	
Dibromochloromethane	ug/L	ND	1.0	0.21	12/19/16 09:47	
Ethylbenzene	ug/L	ND	1.0	0.18	12/19/16 09:47	
Methylene chloride	ug/L	ND	1.0	0.15	12/19/16 09:47	
Styrene	ug/L	ND	1.0	0.12	12/19/16 09:47	
Tetrachloroethene	ug/L	ND	1.0	0.10	12/19/16 09:47	
Toluene	ug/L	ND	1.0	0.17	12/19/16 09:47	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.20	12/19/16 09:47	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.12	12/19/16 09:47	
Trichloroethene	ug/L	ND	1.0	0.17	12/19/16 09:47	
Vinyl chloride	ug/L	ND	1.0	0.13	12/19/16 09:47	
Xylene (Total)	ug/L	ND	3.0	0.42	12/19/16 09:47	
1,2-Dichloroethane-d4 (S)	%	113	81-127		12/19/16 09:47	
4-Bromofluorobenzene (S)	%	97	77-130		12/19/16 09:47	
Toluene-d8 (S)	%	100	80-120		12/19/16 09:47	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: FORT SMITH, AR
Pace Project No.: 60234409

LABORATORY CONTROL SAMPLE: 1881326

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	19.7	99	81-116	
1,1,2,2-Tetrachloroethane	ug/L	20	22.0	110	72-117	
1,1,2-Trichloroethane	ug/L	20	18.8	94	79-108	
1,1-Dichloroethane	ug/L	20	20.7	103	83-117	
1,1-Dichloroethene	ug/L	20	19.2	96	74-114	
1,2-Dichloroethane	ug/L	20	20.2	101	72-116	
1,2-Dichloropropane	ug/L	20	19.4	97	80-120	
2-Butanone (MEK)	ug/L	100	96.5	96	67-129	
2-Hexanone	ug/L	100	103	103	70-128	
4-Methyl-2-pentanone (MIBK)	ug/L	100	104	104	80-120	
Acetone	ug/L	100	98.8	99	56-142	
Benzene	ug/L	20	19.7	98	79-116	
Bromodichloromethane	ug/L	20	20.8	104	80-120	
Bromoform	ug/L	20	20.8	104	73-114	
Bromomethane	ug/L	20	16.3	82	49-153	
Carbon disulfide	ug/L	20	18.8	94	82-121	
Carbon tetrachloride	ug/L	20	19.9	100	80-116	
Chlorobenzene	ug/L	20	20.5	102	80-120	
Chloroethane	ug/L	20	17.9	90	67-124	
Chloroform	ug/L	20	18.3	91	79-120	
Chloromethane	ug/L	20	14.1	71	10-192	
cis-1,2-Dichloroethene	ug/L	20	18.0	90	80-120	
cis-1,3-Dichloropropene	ug/L	20	19.7	99	80-120	
Dibromochloromethane	ug/L	20	20.9	105	80-120	
Ethylbenzene	ug/L	20	19.9	99	80-120	
Methylene chloride	ug/L	20	19.6	98	80-120	
Styrene	ug/L	20	19.4	97	80-120	
Tetrachloroethene	ug/L	20	20.6	103	80-120	
Toluene	ug/L	20	19.1	96	80-120	
trans-1,2-Dichloroethene	ug/L	20	18.6	93	78-108	
trans-1,3-Dichloropropene	ug/L	20	20.3	101	85-120	
Trichloroethene	ug/L	20	18.8	94	76-114	
Vinyl chloride	ug/L	20	17.8	89	69-129	
Xylene (Total)	ug/L	60	59.1	98	80-120	
1,2-Dichloroethane-d4 (S)	%			105	81-127	
4-Bromofluorobenzene (S)	%			100	77-130	
Toluene-d8 (S)	%			97	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALIFIERS

Project: FORT SMITH, AR
Pace Project No.: 60234409

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-K Pace Analytical Services - Kansas City

BATCH QUALIFIERS

Batch: 459457

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: FORT SMITH, AR
Pace Project No.: 60234409

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60234409001	**ITMW-9-201612**	EPA 5030B/8260	459457		
60234409002	**MW-58R-201612**	EPA 5030B/8260	459457		
60234409003	**TB-1-201612**	EPA 5030B/8260	459457		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical®
www.pacelabs.com

Sample Condition Upon Receipt

WO# : 60234409

60234409

Client Name: Environ

Courier: FedEx ☒ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☐ Client ☐ Other ☐

Tracking #: 805 4 7766 6438 Pace Shipping Label Used? Yes ☐ No ☒

Custody Seal on Cooler/Box Present: Yes ☒ No ☐ Seals intact: Yes ☒ No ☐

Packing Material: Bubble Wrap ☒ Bubble Bags ☐ Foam ☐ None ☐ Other ☐

Thermometer Used: CF +0.7 / CF -0.5 T-266 / T-239 **Type of Ice:** (Wet) Blue None

Cooler Temperature (°C): **As-read** 4.3 **Corr. Factor** CF +0.7 CF -0.5 **Corrected** 5.0

Date and initials of person examining contents: JPS 12/15/16

Temperature should be above freezing to 6°C

Chain of Custody present:	☒Yes ☐No ☐N/A	
Chain of Custody relinquished:	☒Yes ☐No ☐N/A	
Samples arrived within holding time:	☒Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☐Yes ☒No ☐N/A	
Rush Turn Around Time requested:	☐Yes ☒No ☐N/A	
Sufficient volume:	☒Yes ☐No ☐N/A	
Correct containers used:	☒Yes ☐No ☐N/A	
Pace containers used:	☒Yes ☐No ☐N/A	
Containers intact:	☒Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☒N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☒N/A	
Sample labels match COC: Date / time / ID / analyses	☒Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: water	☐Yes ☐No ☒N/A	
Containers requiring pH preservation in compliance? (HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO)	☒Yes ☐No ☐N/A	
Cyanide water sample checks: ☒N/A Lead acetate strip turns dark? (Record only) Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No ☐Yes ☐No	
Trip Blank present:	☒Yes ☐No ☒N/A	
Headspace in VOA vials (>6mm):	☐Yes ☒No ☐N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☒N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☒N/A	

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: Colleen Clayton Date: 12/16/2016

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Pace Analytical
www.pacelabs.com

Page: 1 of 1

Section A — **Required** Client Information:

Company:	Environ
Address:	7500 College Blvd., Ste. 925
	Overland Park, KS 66210
Email To:	tgleason@ramboll.com
Phone: 913-553-5926	Fax:
Requested Due Date/TAT:	2 Day TAT

Section B — **Required** Project Information:

Report To:	Tamara Gleason
Copy To:	
Purchase Order No.:	NA
Project Name:	Fort Smith, AR
Project Number:	3437500Q

Section C — Invoice Information:

Attention:	Tamara Gleason
Company Name:	Environ
Address:	250 Monroe Ave, NW Grand Rapids Michigan, 49503
Pace Quote Reference:	
Pace Project Manager:	Colleen Clyne (913) 563-1406
Pace Profile #:	7444 water, 7709 soil

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☒ OTHER ADEQ

Site Location — **STATE:** AR

Section D — **Required** Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COLLECTED: COMPOSITE START TIME	COLLECTED: COMPOSITE END/GRAB DATE	COLLECTED: COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test: 8260 client specific list	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	ITMW-9-201612	WT	G	12/14/16	1520				3				X					X	N	30(9H)
2	MW-58R-201612	WT	G	12/14/16	1328				3				X					X	N	2(9H)
3	TB-1-201612	WT		12/14/16					2				X							
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

Requested Analysis Filtered (Y/N): Y/N = N

60224409

Pace Project No./ Lab I.D.

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Lucy Cross / Ramboll	12/14/16	1627	Seth A.	12-14-16	16:33				
				[signature] / Pace	12/15/16	1005	5.0	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Lucy Cross

SIGNATURE of SAMPLER: Lucy Cross DATE Signed (MM/DD/YY): 12/14/2016

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-Feb-2007

Appendix D

Data Validation Report

LEVEL II DATA VALIDATION REVIEW
Annual 2016 Groundwater Monitoring Event
Whirlpool Corporation
Fort Smith, Arkansas

Laboratory Sample Delivery Groups (SDGs): 60231721, 60231722, 60231848, 60321873, 60231925, 60231974, and 60232090

Laboratory: PACE Analytical, Lenexa, Kansas

Reviewer: Kristin Drucquer **Date Reviewed: December 5, 2016**

This data validation report has been prepared by Ramboll Environ US Corporation (Ramboll Environ) to assess the validity and usability of laboratory analytical data generated from samples collected during the Annual 2016 groundwater sampling event at the Whirlpool Corporation, Fort Smith, Arkansas Site (the "site") from November 7, 2016 through November 10, 2016.

The analytical data were evaluated for quality assurance and quality control (QA/QC) based on the following document: *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review* (OSWER 9355.0-132, EPA-540-R-014-022, August, 2014).

This report summarizes the QA/QC evaluation of the data according to precision, accuracy, representativeness, completeness and comparability relative to the project data quality objectives. This report provides a quantitative and qualitative assessment of the data and identifies potential sources of error, uncertainty, and bias that may affect the overall usability of the data.

Seventy-five (75) ground water samples, one (1) air sample, seven (7) blind ground water field duplicates, four (4) matrix spike/matrix spike duplicate (MS/MSD), five (5) equipment rinsate blanks, and six (6) trip blanks were analyzed for volatile organic compounds (VOCs) and evaluated in this data validation report. Pace Analytical Services, LLC (Pace) located in Lenexa, Kansas analyzed all the aqueous samples for VOCs by United States Environmental Protection (USEPA) Method SW8260. Pace located in Minneapolis, Minnesota, analyzed the air sample for VOCs by USEPA Method TO-15. The following table lists the sample identifications by SDG.

Field ID	Sample Type	Lab ID	Matrix	Analysis
				VOCs
SDG: 60231721				
MW-68-201611	SA	60231721001	Aqueous	X
MW-63R-201611	SA	60231721002	Aqueous	X
MW-55R-201611	SA	60231721003	Aqueous	X
MW-39R-201611	SA	60231721004	Aqueous	X
MW-40R-201611	SA	60231721005	Aqueous	X
MW-62R-201611	SA/MS/MSD	60231721006	Aqueous	X
MW-50R-201611	SA	60231721007	Aqueous	X
TB-01-201611	TB	60231721008	Aqueous	X
SDG: 60231722				
MW-61R-201611	SA	60231722001	Aqueous	X
MW-189-201611	SA	60231722002	Aqueous	X

Field ID	Sample Type	Lab ID	Matrix	Analysis
				VOCs
MW-186-201611	SA	60231722003	Aqueous	X
MW-194-201611	SA	60231722004	Aqueous	X
SDG 60231848				
MW-60R-201611	SA	60231848001	Aqueous	X
MW-46R-201611	SA	60231848002	Aqueous	X
MW-185-201611	SA	60231848003	Aqueous	X
IW-77-201611	SA	60231848004	Aqueous	X
IW-78-201611	SA	60231848005	Aqueous	X
MW-22-201611	SA	60231848006	Aqueous	X
MW-24-201611	SA	60231848007	Aqueous	X
MW-175-201611	SA	60231848008	Aqueous	X
DUP-07-201611	FD	60231848009	Aqueous	X
MW-57R-201611	SA	60231848010	Aqueous	X
MW-56R-201611	SA	60231848011	Aqueous	X
MW-176-201611	SA	60231848012	Aqueous	X
MW-87-201611	SA	60231848013	Aqueous	X
MW-89-201611	SA	60231848014	Aqueous	X
TMW-11-201611	SA	60231848015	Aqueous	X
DUP-05-201611	FD	60231848016	Aqueous	X
MW-190-201611	SA	60231848017	Aqueous	X
MW-98-201611	SA	60231848018	Aqueous	X
MW-191-201611	SA/MS/MSD	60231848019	Aqueous	X
MW-97-201611	SA	60231848020	Aqueous	X
MW-96-201611	SA	60231848021	Aqueous	X
MW-184-201611	SA	60231848022	Aqueous	X
EB-02-201611	EB	60231848023	Aqueous	X
TMW-10-201611	SA	60231848024	Aqueous	X
ITMW-9-201611	SA/MS/MSD	60231848025	Aqueous	X
TB-1-201611	TB	60231848026	Aqueous	X
TB-3-201611	TB	60231848027	Aqueous	X
SDG: 60231873				
VP-12-201611	SA	60231873001	Aqueous	X
VP-10-201611	SA	60231873002	Aqueous	X
VP-07-201611	SA	60231873003	Aqueous	X
VP-08-201611	SA	60231873004	Aqueous	X
VP-06-201611	SA	60231873005	Aqueous	X
VP-05-201611	SA	60231873006	Aqueous	X
SDG: 60231925				
MW-28-201611	SA	60231925001	Aqueous	X
MW-93-201611	SA	60231925002	Aqueous	X
DUP-01-201611	FD	60231925003	Aqueous	X
IW-73-201611	SA	60231925004	Aqueous	X
MW-95-201611	SA	60231925005	Aqueous	X
EB-01-201611	EB	60231925006	Aqueous	X
ITMW-201611	SA	60231925007	Aqueous	X
MW-27-201611	SA/MS/MSD	60231925008	Aqueous	X
MW-82-201611	SA	60231925009	Aqueous	X

Field ID	Sample Type	Lab ID	Matrix	Analysis
				VOCs
ITMW-21-201611	SA	60231925010	Aqueous	X
ITMW-18-201611	SA	60231925011	Aqueous	X
ITMW-19-201611	SA	60231925012	Aqueous	X
MW-29-201611	SA	60231925013	Aqueous	X
MW-26-201611	SA	60231925014	Aqueous	X
ITMW-20-201611	SA	60231925015	Aqueous	X
ITMW-2-201611	SA	60231925016	Aqueous	X
MW-183-201611	SA	60231925017	Aqueous	X
MW-192-201611	SA	60231925018	Aqueous	X
MW-84-201611	SA	60231925019	Aqueous	X
TB-4-201611	TB	60231925020	Aqueous	X
TB-2-201611	TB	60231925021	Aqueous	X
MW-83-201611	SA	60231925022	Aqueous	X
MW-86-201611	SA	60231925023	Aqueous	X
MW-25-201611	SA	60231925024	Aqueous	X
RW-69-201611	SA	60231925025	Aqueous	X
MW-195-201611	SA	60231925026	Aqueous	X
DUP-02-201611	FD	60231925027	Aqueous	X
MW-182-201611	SA	60231925028		
MW-188-201611	SA	60231925029	Aqueous	X
MW-187-201611	SA	60231925030	Aqueous	X
MW-196-201611	SA	60231925031	Aqueous	X
EB-05-201611	EB	60231925032	Aqueous	X
EB-06-201611	EB	60231925033	Aqueous	X
SDG: 60232090				
EB-03-201611	EB	60232090001	Aqueous	X
ITMW-5-201611	SA	60232090002	Aqueous	X
DUP-06-201611	FD	60232090003	Aqueous	X
ITMW-7-201611	SA	60232090004	Aqueous	X
MW-178-201611	SA	60232090005	Aqueous	X
MW-91-201611	SA	60232090006	Aqueous	X
DUP-03-201611	FD	60232090007	Aqueous	X
MW-58-201611	SA	60232090008	Aqueous	X
MW-38-201611	SA	60232090009	Aqueous	X
ITMW-1-201611	SA	60232090010	Aqueous	X
ITMW-10-201611	SA	60232090011	Aqueous	X
DUP-04-201611	FD	60232090012	Aqueous	X
TB-05-201611	TB	60232090013	Aqueous	X
SDG: 60231974				
VP-09-201611	SA	60231974001	Air	X

Sample Type: SA = Sample TB = Trip Blank FD = Field Duplicate EB = Equipment Blank
MS =Matrix Spike MSD = Matrix Spike Duplicate
VOCs = Volatile Organic Compounds by USEPA Method SW-846 8260 by Gas Chromatography/Mass Spectrometry (GC/MS)

The laboratory reports were evaluated for the following QC elements:

- Data Package Completeness,
- Sample Preservation and Holding Times,

- Blanks,
- Surrogate Compound Recoveries,
- Laboratory Control Sample (LCS),
- Matrix Spike/Matrix Spike Duplicates,
- Laboratory and Field Precision,
- Overall Assessment of Data.

General Overall Assessment:

_____ Data are usable without qualification.

__X__ Data are usable with qualification (noted below).

_____ Some or all data are unusable for any purpose (detailed below).

Case Narrative Comments: Any case narrative comments concerning data qualification were noted below.

1.0 Data Package Completeness

Were all items delivered as specified on the COC and is the data package complete?

Yes, the analysis was performed as requested on the chain-of-custody records. All samples were received by the laboratory and analyzed properly with appropriate corrective actions taken when appropriate. No data points were rejected; therefore, the data completeness measure for this data set is 100% and is considered acceptable.

2.0 Laboratory Case Narrative, Sample Preservation and Cooler Receipt Form

Were issues noted in the laboratory case narrative or cooler receipt form?

Yes, the laboratory case narrative indicated the following:

- **SDG: 60231722 –** The laboratory indicated that chloromethane and cis-1,2-dichloroethene were detected in a method blank. See Section 4.0 for further discussion and resultant data qualification. The laboratory indicated that the recoveries for 1,1,2-trichloroethane, 4-methyl-2-pentanone, and carbon disulfide were outside QC limits in one LCS. See Section 7.0 for further discussion and resultant data qualification.
- **SDG: 60231848 –** The laboratory indicated that 1,1-dichloroethene was detected in a method blank. See Section 4.0 for further discussion and resultant data qualification. The laboratory indicated that the recoveries for 1,1,2,2-tetrachloroethane and bromoform were outside QC limits in one LCS. The laboratory indicated that the recovery of 1,1,2-trichloroethane was outside QC limits in a second LCS. See Section 7.0 for further discussion and resultant data qualification. The MSD and the relative percent difference (RPD) for several analytes were reported outside of laboratory control limits. See Section 8.0 for further discussion and resultant data qualification.
- **SDG: 60231873 –** The laboratory indicated that the LCS was reported outside of laboratory control requirements for 1,1,2,2-tetrachloroethane and bromoform. See Section 7.0 for further discussion and resultant data qualification. The MS/MSD and the RPD for several analytes were reported outside of laboratory control limits. However, the sample noted in the case narrative was not from the same data package.
- **SDG: 60231925 –** The laboratory indicated that the continuing calibration verification (CCV) recoveries were outside the method control limits for 1,1-dichloroethene in three samples. See Section 12.0 for further discussion and resultant data qualification. The laboratory indicated that methylene chloride was detected in a method blank. See

Section 4.0 for further discussion and resultant data qualification. The laboratory indicated that 1,1,2,2-tetrachloroethane, bromoform, 1,1,2-trichloroethane, bromomethane, 1,1,1-trichloroethane, and vinyl chloride were reported outside of laboratory control requirements for one or more LCS. See Section 7.0 for further discussion and resultant data qualification. The MS/MSD and the RPD for several analytes were reported outside of laboratory control limits. See Section 8.0 for further discussion and resultant data qualification.

- **SDG: 60232090 –** The laboratory indicated that carbon disulfide was detected in a method blank. See Section 4.0 for further discussion and resultant data qualification. The laboratory indicated that 1,1,2-trichloroethane, benzene, carbon tetrachloride, trichloroethane, and trans-1,2-dichloroethene were reported outside of laboratory control requirements for one or more LCS. See Section 7.0 for further discussion and resultant data qualification.

Samples were received at the PACE, Lenexa, Kansas laboratory in good condition and at proper temperature 4 degrees Celsius (˚C) ± 2˚C, with three exceptions. Samples collected on November 9, 2016 were received at 0.3 ˚C and 0.4 ˚C. However, the laboratory did not note any freezing of the samples, and this non-conformance does not affect the usability of the data. Samples collected on November 10, 2016 were received at 9.4 ˚C. These samples were received the same day as sampling and the cooling process had begun. Therefore, this non-conformance does not affect the usability of the data.

3.0 Technical Holding Times

Were samples extracted/analysed within method specific holding time requirements?

Yes. All samples were prepared and/or analysed within the method specific required holding time of 14 days for hydrochloric (HCl) acid preserved samples. Five samples (ITMW-18-201611, ITMW-19-201611, MW-84-201611, MW-83-201611, and MW-25-201611) were preserved with ascorbic acid. The samples were analyzed within a reduced holding time of seven days.

4.0 Blank Contamination

Were any analytes detected in the associated laboratory or field blanks?

Yes. The following table summarizes analytes detected in sample-associated blanks after accounting for method blank contamination.

SDG	Blank ID	Blank Type	Analyte	Concentration	Units
60231722	1858819	Method	Chloroform	0.15 J	µg/L
60231722	1858819	Method	Chloromethane	0.23 J	µg/L
60231722	1858819	Method	cis-1,2-Dichloroethene	0.20 J	µg/L
60231848	1863034	Method	1,1-Dichloroethene	0.27 J	µg/L
60231925	1864631	Method	Chloromethane	0.40 J	µg/L
60231925	1867763	Method	Methylene chloride	0.32 J	µg/L
60231925	1863375	Method	Methylene chloride	0.25 J	µg/L
60231925	EB-05-201611	Equipment	Acetone	3.0 J	µg/L
60232090	1865619	Method	Carbon disulfide	0.16 J	µg/L

ID = Identification µg/L = micrograms per liter J = result was detected between the method detection limit and reporting limit and is considered estimated

Analytical data that were reported non-detect or at concentrations greater than five times (5X) the associated blank concentration (10X for common laboratory contaminants) did not require qualification. Results that are qualified due to blank contamination are summarized in the table below.

SDG	Field ID	Analyte	Qualification
60231722	MW-61R-201611	Chloromethane	**U**
60231722	MW-189-201611	Chloromethane	**U**
60231722	MW-186-201611	Chloromethane	**U**
60231722	MW-194-201611	Chloromethane	**U**
60231722	MW-194-201611	cis-1,2-Dichloroethene	**U**
60231848	TB-1-201611	1,1-Dichloroethene	**U**
60231925	MW-93-201611	Methylene chloride	**U**
60231925	MW-28-201611	Acetone	**U**
60231925	MW-27-201611	Acetone	**U**
60231925	MW-82-201611	Acetone	**U**
60231925	ITMW-21-201611	Acetone	**U**
60231925	ITMW-18-201611	Acetone	**U**
60231925	ITMW-19-201611	Acetone	**U**
60231925	ITMW-20-201611	Acetone	**U**
60231925	MW-84-20611	Acetone	**U**
60231925	MW-83-20611	Acetone	**U**
60232090	ITMW-10-201611	Carbon disulfide	**U**

ID = Identification U = Non-detect

5.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes. Three volatile surrogates (4-bromofluorobenzene, 1,2-dichloroethane-d4, and toluene-d8) were added to each aqueous sample prior to purging to evaluate the laboratory performance on individual samples. Percent recoveries (%R) for all volatile surrogates in all samples were within the laboratory acceptance limits.

6.0 Internal Standards

Were the Internal standard areas within control limits and was the retention time criteria met?

Yes. Internal standards indicate whether GC/MS sensitivity and response were stable during each analysis. The laboratory reported that all criteria were within method requirements.

7.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No. The LCS provides information on the accuracy of the analytical method and on the laboratory performance. The following table summarizes the LCS results that were outside the acceptance limits.

SDG	LCS ID	Analyte	LCS (%)	LCS Criteria (Recovery %)
60231722	1858820	1,1,2-Trichloroethane	**113**	79-108
60231722	1858820	4-Methyl-2-pentanone	**75**	80-120
60231722	1858820	Carbon disulfide	**80**	82-121
60231848/ 60231873/ 60231925	1863068	1,1,2,2-Tetrachloroethane	**123**	72-117

SDG	LCS ID	Analyte	LCS (%)	LCS Criteria (Recovery %)
60231848/ 60231873/ 60231925	1863068	Bromoform	**116**	73-114
60231848	1863805	1,1,2-Trichloroethane	**113**	79-108
60231925/ 60232090	1863097	1,1,2-Trichloroethane	**109**	79-108
60231925	1864633	1,1,1-Trichloroethane	**119**	81-116
60231925	1867764	Vinyl chloride	**130**	69-129
60231925	1863376	Bromomethane	**176**	49-153
60232090	1864722	1,1,1-Trichloroethane	**124**	81-116
60232090	1864722	Benzene	**122**	79-116
60232090	1864722	Carbon tetrachloride	**120**	80-116
60232090	1864722	trans-1,2-Dichloroethene	**109**	78-108
60232090	1864722	Trichloroethene	**122**	76-114

ID = Identification LCS = Laboratory Control Sample RPD = Relative Percent Difference % = Percent

Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. Results qualified for LCS recoveries are listed in the following table.

SDG	Field ID	Analyte	Qualification
60231722	MW-61R-201611	Carbon disulfide	**UJ**
60231722	MW-61R-201611	4-Methyl-2-pentanone	**UJ**
60231722	MW-189-201611	Carbon disulfide	**UJ**
60231722	MW-189-201611	4-Methyl-2-pentanone	**UJ**
60231722	MW-186-201611	Carbon disulfide	**UJ**
60231722	MW-186-201611	4-Methyl-2-pentanone	**UJ**
60231722	MW-194-201611	Carbon disulfide	**UJ**
60231722	MW-194-201611	4-Methyl-2-pentanone	**UJ**
60231925	MW-82-201611	Bromoform	**J**
60231925	MW-86-201611	1,1,2-Trichloroethane	**J**
60231925	MW-93-201611	Vinyl chloride	**J**
60231925	MW-95-201611	Vinyl chloride	**J**
60231925	MW-86-201611	Vinyl chloride	**J**
60231925	MW-25-201611	Bromomethane	**J**
60232090	ITMW-7-201611	Benzene	**J**

ID = Identification J = Estimated UJ = Estimated Non-detect

8.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples reported as part of these SDGs?

Yes. A matrix spike was performed from a site specific sample at the required frequency of 1:20 samples. MS/MSD data are used to assess long-term precision and accuracy of the analytical method on various matrices and to demonstrate acceptable compound recovery at the time of sample analysis.

Were MS/MSD recoveries within evaluation criteria?

No. MS/MSD recoveries which were outside acceptance evaluation criteria are summarized in the table below.

SDG	Sample ID	Analyte	MS/MSD Recovery (%)	RPD (%)	MS/MSD Recovery / RPD Criteria (%)
60231848	MW-191-201611	trans-1,3-Dichloropropene	85 / 97	**14**	71-118 / 13
		Vinyl chloride	114 / 91	**23**	65-142 / 22
		1,1,2-Trichloroethane	84 / 104	**22**	70-113 / 15
60231848	ITMW-9-201611	1,1,1-Trichloroethane	107 / 123	**14**	70-135 / 12
		2-Butanone	77 / 97	**23**	30-127 / 18
		4-Methyl-2-pentanone	81 / 96	**17**	70-124 / 15
		Acetone	70 / 92	**26**	10-132 / 20
		cis-1,2-Dichloroethene	65 / **140**	16	58-139 / 40
		Dibromochloromethane	103 / **115**	10	77-114 / 13
60231925	MW-27-201611	1,1,2,2-Tetrachloroethane	95 / 113	**17**	54 -136 / 15

MS = Matrix Spike MSD = Matrix Spike Duplicate RPD = Relative Percent Difference % = Percent

Analytical results reported as non-detect and associated with MS/MSD recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. One result was associated with a high MSD recovery and was qualified "J" as estimated as shown in the table below.

SDG	Field ID	Analyte	Qualification
60231848	ITMW-9-201611	cis-1,2-Dichloroethene	**J**

ID = Identification J = Estimated

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples performed as part of this SDG?

Yes, but only as spiked duplicates, which are discussed in the previous section.

10.0 Field Duplicate Results (Field Precision)

Were field duplicate samples collected as part of the evaluated SDGs?

Yes. The table below summarizes field duplicate pairs.

SDG	Field ID	Field Duplicate ID
60231848	MW-57R-201611	DUP-07-201611
60231848	MW-87-201611	DUP-05-201611
60231925	IW-73-201611	DUP-01-201611
60231925	MW-182-201611	DUP-02-201611
60232090	ITMW-5-201611	DUP-06-201611
60232090	ITMW-1-201611	DUP-04-201611

ID = Identification J = Estimated

Were field duplicates within evaluation criteria?

No. RPD values were less than the control limit of <30% for all compounds with concentrations above the reporting limit with the two exceptions. The calculated RPD for trichloroethene in field duplicate pairs MW-87-201611 and DUP-05-201611 was 30%. The calculated RPD for vinyl chloride in field duplicate pairs ITMW-5-201611 and DUP-06-201611 was 60%. Results for

trichloroethene and vinyl chloride were qualified "J" as estimated in the field duplicate pairs due to possible poor precision.

SDG	Field ID / Field Duplicate	Analyte	Qualification
60231848	MW-87-201611 / DUP-05-201611	Trichloroethane	**J**
60232090	ITMW-5-201611 / DUP-06-201611	Vinyl Chloride	**J**

ID = Identification J = Estimated

11.0 Detects and Calibration Range

For samples that were diluted and nondetect, were undiluted results also reported?

Yes. The results for cis-1,2-dichloroethene in sample MW-86-201611 and the result for vinyl chloride in sample MW-25-201611 were reported as non-detect from analyses performed with 1000x dilutions. Results for 1,1,2,2-tetrachloroethane and 1,1,1-trichloroethane were also reported from the diluted analysis for MW-86-201611 and were "J" qualified as estimated because the concentrations were between the MDL and RL. The result for cis-1,2-dichloroethene in sample MW-25-201611 was reported below the reporting limit and qualified "J" by the laboratory. The samples were diluted in order to report trichloroethene within calibration range. There was not an analysis with a lower dilution factor for these samples that had acceptable quality control criteria for cis-1,2-dichloroethene, vinyl chloride, 1,1,2,2-tetrachloroethane and 1,1,1-trichloroethane; therefore, the analysis was reported from the diluted analyses. All other samples collected as part of this data set and analyzed with dilutions had detections.

For samples that were not diluted and detected, were the results within calibration range?

Yes.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes. The laboratory indicated that the continuing calibration verification (CCV) recoveries were outside the method control limits for 1,1-dichloroethene in three samples (MW-86-201611, MW-93-201611, and MW-95201611). The recovery was -26.2%, below the acceptance criteria of ± 20%. The results were qualified "J" to indicate a potential low bias. A summary of the data qualified for CCV recoveries is listed below.

SDG	Field ID	Analyte	Qualification
60231925	MW-86-201611	1,1-Dichloroethene	**J**
60231925	MW-93-201611	1,1-Dichloroethene	**J**
60231925	MW-95201611	1,1-Dichloroethene	**J**

ID = Identification J = Estimated

13.0 Overall Data Assessment

The data are usable for its intended purpose based on an evaluation of the QC parameters discussed in this report. Some data are qualified as estimated due to the inability to meet all QC criteria. The table below summarizes the final qualifications for the analytical data.

Data Qualifier Summary:

SDG	Field ID	Analyte	Qualifier	Reason Code
60231722	MW-186-201611	Chloroform	**U**	1
60231722	MW-186-201611	Carbon disulfide	**UJ**	2
60231722	MW-186-201611	4-Methyl-2-pentanone	**UJ**	2
60231722	MW-189-201611	Chloroform	**U**	1
60231722	MW-189-201611	Carbon disulfide	**UJ**	2
60231722	MW-189-201611	4-Methyl-2-pentanone	**UJ**	2
60231722	MW-194-201611	Chloroform	**U**	1
60231722	MW-194-201611	cis-1,2-Dichloroethene	**U**	1
60231722	MW-194-201611	Carbon disulfide	**UJ**	2
60231722	MW-194-201611	4-Methyl-2-pentanone	**UJ**	2
60231722	MW-61R-201611	Chloroform	**U**	1
60231722	MW-61R-201611	Carbon disulfide	**UJ**	2
60231722	MW-61R-201611	4-Methyl-2-pentanone	**UJ**	2
60231848	DUP-05-201611	Trichloroethane	**J**	5
60231848	ITMW-9-201611	cis-1,2-Dichloroethene	**J**	4
60231848	MW-87-201611	Trichloroethane	**J**	5
60231848	TB-1-201611	1,1-Dichloroethene	**U**	1
60231925	ITMW-18-201611	Acetone	**U**	1
60231925	ITMW-19-201611	Acetone	**U**	1
60231925	ITMW-20-201611	Acetone	**U**	1
60231925	ITMW-21-201611	Acetone	**U**	1
60231925	MW-25-201611	Bromomethane	**J**	3
60231925	MW-27-201611	Acetone	**U**	1
60231925	MW-28-201611	Acetone	**U**	1
60231925	MW-82-201611	Bromoform	**J**	3
60231925	MW-82-20611	Acetone	**U**	1
60231925	MW-83-20611	Acetone	**U**	1
60231925	MW-84-20611	Acetone	**U**	1
60231925	MW-86-201611	1,1,2-Trichloroethane	**J**	3
60231925	MW-86-201611	Vinyl chloride	**J**	3
60231925	MW-86-201611	1,1-Dichloroethene	**J**	6
60231925	MW-93-201611	Methylene chloride	**U**	1
60231925	MW-93-201611	Vinyl chloride	**J**	3
60231925	MW-93-201611	1,1-Dichloroethene	**J**	6
60231925	MW-95201611	1,1-Dichloroethene	**J**	6
60231925	MW-95-201611	Vinyl chloride	**J**	3
60232090	DUP-06-201611	Vinyl Chloride	**J**	5
60232090	ITMW-10-201611	Carbon disulfide	**U**	1
60232090	ITMW-5-201611	Vinyl Chloride	**J**	5
60232090	ITMW-7-201611	Benzene	**J**	3

Data Validation Qualifier Codes:

U = Non-detect. The compound was analysed for, but not detected.

J = Estimated. The associated numerical value is an estimated quantity. The analyte was detected but the reported value may not be accurate or precise.

UJ = Estimated Non-detect. The analyte was not detected above the method detection limit. However, it is an estimated quantity due to poor accuracy or precision. This qualification is also used to flag possible false negative results in the case where low bias in the analytical system is indicated by low calibration response, surrogate or other spike recovery.

R = Rejected. The sample results are unusable due to the quality of the data generated.

Data Qualifier Reason Codes:

1 Samples were qualified as non-detect due to blank contamination.
2 Samples were qualified due to low LCS recoveries. Results may be biased low.
3 Samples were qualified due to high LCS recoveries. Results may be biased high.
4 Samples were qualified due to poor Matrix Spike recoveries. Results may be biased high.
5 Samples were qualified due to poor precision between field duplicate results. Calculated RPD exceeded precision goal of 30%.
6 Samples were qualified due to low CCV recovery. Results may be biased low.

Appendix E

TCE Mass Estimate Calculations

TABLE 1
THICKNESS OF SATURATED SOILS
Whirlpool Facility - Fort Smith, Arkansas

Well ID	Ground Elevation	Top of Saturated Soils	Bottom of Saturated Soils	Saturated Soil Interval
North Plume				
IW-72	472.2	450.2	446.4	3.8
IW-73	472.1	NA[2]	NA[2]	NA[2]
IW-74	472.3	454.3	446.3	8.0
IW-75	472.8	NA[2]	NA[2]	NA[2]
IW-76	473.2	NA[2]	NA[2]	NA[2]
IW-77	473.8	454.8	445.8	9.0
IW-78	474.2	NA[2]	NA[2]	NA[2]
IW-79	474.1	NA[2]	NA[2]	NA[2]
IW-80	473.7	454.7	446.7	8.0
MW-23	475.8	453.8	447.8	6.0
MW-24	476.6	453.6	447.1	6.5
MW-27	475.7	451.7	447.4	4.3
MW-28	470.6	447.1	445.9	1.2
MW-31	476.1	448.1	447.1	1.0
MW-32	475.7	NA[2]	NA[2]	NA[2]
MW-33	474.9	NA[2]	NA[2]	NA[2]
MW-35R	474.0	NA[2]	NA[2]	NA[2]
MW-36	473.4	NA[2]	NA[2]	NA[2]
MW-39	475.6	450.1	447.6	2.5
MW-40	473.4	450.1	447.1	3.0
MW-41	472.3	453.3	445.8	7.5
MW-42B	471.8	449.8	446.3	3.5
MW-43	471.0	451.0	446.3	4.7
MW-46R	466.5	450.5	445.8	4.7
MW-50	463.2	451.2	445.6	5.6
MW-55	465.5	447.5	446.8	0.7
MW-56	463.4	445.4	444.9	0.5
MW-57	463.1	447.1	446.5	0.6
MW-58	462.9	446.3	445.9	0.4
MW-60	461.0	447.2	445.6	1.6 [3]
MW-61	459.8	445.5	444.7	0.8 [3]
MW-62	464.5	446.0	444.2	1.8
MW-63	464.0	444.7	444.5	0.2 [3]
MW-65	474.1	453.6	445.7	7.9
MW-66	462.7	450.7	446.5	4.2 [3]
MW-67	459.4	448.4	445.2	3.2 [3]
MW-68	470.0	448.0	446.5	1.5
MW-70	471.7	NA[2]	NA[2]	NA[2]
MW-71	471.5	NA[2]	NA[2]	NA[2]
RW-69	471.5	449.5	445.5	4.0
			Average Thickness (feet)	**3.7**
South Plume				
ITMW-1	474.6	450.6	444.1	6.5
ITMW-10	478.6	451.6	446.1	5.5
ITMW-11	474.0	457.5	444.5	13.0
ITMW-12	474.7	456.7	444.7	12.0
ITMW-13	475.4	450.4	446.4	4.0

TABLE 1
THICKNESS OF SATURATED SOILS
Whirlpool Facility - Fort Smith, Arkansas

Well ID	Ground Elevation	Top of Saturated Soils	Bottom of Saturated Soils	Saturated Soil Interval
ITMW-14	475.7	455.7	445.7	10.0
ITMW-15	474.8	454.0	444.8	9.2
ITMW-16	476.5	458.5	445.3	13.2
ITMW-17	476.1	454.1	447.1	7.0
ITMW-18	473.9	457.9	444.9	13.0
ITMW-19	474.3	457.8	445.3	12.5
ITMW-2	475.1	457.1	445.6	11.5
ITMW-20	475.7	453.2	447.4	5.8
ITMW-21	474.4	449.4	446.4	3.0
ITMW-3	472.8	451.6	444.6	7.0
ITMW-4	477.6	458.1	447.1	11.0
ITMW-5	476.6	452.1	446.1	6.0
ITMW-6	481.1	455.4	445.6	9.8
ITMW-7	479.7	NA[2]	NA[2]	NA[2]
ITMW-9	479.5	460.2	446.3	13.9
MW-22	473.9	450.9	449.9	1.0
MW-25	474.7	446.7	445.0	1.8
MW-26	476.1	451.1	446.9	4.2
MW-29	475.1	452.1	447.1	5.0
MW-30	479.2	446.7	443.7	3.0
MW-37	474.0	457.0	445.5	11.5
MW-38	474.9	NA[2]	NA[2]	NA[2]
MW-92	473.9	451.9	444.9	7.0
MW-93	478.0	456.0	443.5	12.5
MW-94	478.0	455.0	445.0	10.0
MW-95	478.0	452.0	445.0	7.0
MW-172	473.4	459.4	445.8	13.6
			Average Thickness (feet)	**8.3**
NE Corner Plume				
MW-87	471.0	451.0	447.8	3.2
MW-88	469.1	453.6	449.1	4.5
MW-89	467.1	451.6	449.5	2.1
MW-90	467.0	452.0	447.0	5.0
MW-91	469.2	451.7	449.2	2.5
MW-96	458.3	449.8	444.0	5.8
MW-97	459.9	451.9	445.9	6.0
MW-98	462.0	451.0	444.4	6.6
MW-99	467.1	449.3	445.1	4.2
			Average Thickness (feet)	**4.4**

Notes:

1. Saturated thickness calculated from soil description in boring log.
2. NA - Boring log not available
3. No saturated soil observation recorded in boring log during drilling. Interval inferred based on soil description.

TABLE 2
ESTIMATED QUANTITY OF TCE IN GROUNDWATER
Whirlpool Facility - Fort Smith, Arkansas

GROUNDWATER	Volume of Water						TCE Concentration		Mass of TCE		Volume of TCE	
Date	Plume Area (Square Feet)	Saturated Thickness (Feet)	Total Porosity[2]	Plume Area (Cubic Feet)	Gallons	Liters	Estimated Avg. Min. Concentration Assumed to be Present Throughout the Respective Section of Plume (µg/L)	Estimated Avg. Max. Concentration Assumed to be Present Throughout the Respective Section of Plume (µg/L)	Min. Kg.	Max. Kg.	Min. Vol. (Gallons)	Max. Vol. (Gallons)
North Plume												
March 2014 - 5 to 100 µg/L	*246,800*	3.7[1]	0.4	366,251	2,739,559	10,369,231	5	100	0.1	1.0	0.0	0.2
March 2014 - 100 to 1,000 µg/L	*184,500*	3.7[1]	0.4	273,798	2,048,009	7,751,714	100	1,000	0.8	7.8	0.1	1.4
March 2014 - > 1,000 µg/L	*100*	3.7[1]	0.4	148	1,110	4,201	1,000	1,500	0.0	0.0	0.0	0.0
March 2014 Subtotal	431,400								0.8	8.8	0.2	1.6
May 2014 - 5 to 100 µg/L	*279,000*	3.7[1]	0.4	414,036	3,096,989	11,722,104	5	100	0.1	1.2	0.0	0.2
May 2014 - 100 to 1,000 µg/L	*185,110*	3.7[1]	0.4	274,703	2,054,780	7,777,343	100	1,000	0.8	7.8	0.1	1.4
May 2014 - > 1,000 µg/L	*100*	3.7[1]	0.4	148	1,110	4,201	1,000	1,500	0.0	0.0	0.0	0.0
May 2014 Subtotal	464,210								0.8	9.0	0.2	1.6
July 2014 - 5 to 100 µg/L	*294,300*	3.7[1]	0.4	436,741	3,266,824	12,364,930	5	100	0.1	1.2	0.0	0.2
July 2014 - 100 to 1,000 µg/L	*192,500*	3.7[1]	0.4	285,670	2,136,812	8,087,832	100	1,000	0.8	8.1	0.1	1.5
July 2014 - > 1,000 µg/L	*200*	3.7[1]	0.4	297	2,220	8,403	1,000	1,500	0.0	0.0	0.0	0.0
July 2014 Subtotal	487,000								0.9	9.3	0.2	1.7
October 2014 - 5 to 100 µg/L	*299,500*	3.7[1]	0.4	444,458	3,324,546	12,583,406	5	100	0.1	1.3	0.0	0.2
October 2014 - 100 to 1,000 µg/L	*199,900*	3.7[1]	0.4	296,652	2,218,954	8,398,741	100	1,000	0.8	8.4	0.2	1.5
October 2014 - > 1,000 µg/L	*400*	3.7[1]	0.4	594	4,440	16,806	1,000	1,500	0.0	0.0	0.0	0.0
October 2014 Subtotal	499,800								0.9	9.7	0.2	1.8
January 2015 - 5 to 100 µg/L	*296,000*	3.7[1]	0.4	439,264	3,285,695	12,436,355	5	100	0.1	1.2	0.0	0.2
January 2015 - 100 to 1,000 µg/L	*180,466*	3.7[1]	0.4	267,812	2,003,230	7,582,227	100	1,000	0.8	7.6	0.1	1.4
January 2015 - > 1,000 µg/L	*0*	3.7[1]	0.4	0	0	0	1,000	1,500	0.0	0.0	0.0	0.0
January 2015 Subtotal	476,466								0.8	8.8	0.1	1.6
April 2015 - 5 to 100 µg/L	308,950	3.7[1]	0.4	458,482	3,429,444	12,980,445	5	100	0.1	1.3	0.0	0.2
April 2015 - 100 to 1,000 µg/L	177,037	3.7[1]	0.4	262,723	1,965,167	7,438,158	100	1,000	0.7	7.4	0.1	1.3
April 2015 - > 1,000 µg/L	0	3.7[1]	0.4	0	0	0	1,000	1,500	0.0	0.0	0.0	0.0
April 2015 Subtotal	485,987								0.8	8.7	0.1	1.6

TABLE 2
ESTIMATED QUANTITY OF TCE IN GROUNDWATER
Whirlpool Facility - Fort Smith, Arkansas

GROUNDWATER	Volume of Water						TCE Concentration		Mass of TCE		Volume of TCE	
Date	Plume Area (Square Feet)	Saturated Thickness (Feet)	Total Porosity[2]	Plume Area (Cubic Feet)	Gallons	Liters	Estimated Avg. Min. Concentration Assumed to be Present Throughout the Respective Section of Plume (µg/L)	Estimated Avg. Max. Concentration Assumed to be Present Throughout the Respective Section of Plume (µg/L)	Min. Kg.	Max. Kg.	Min. Vol. (Gallons)	Max. Vol. (Gallons)
July 2015 - 5 to 100 µg/L	334,058	3.7[1]	0.4	495,742	3,708,151	14,035,350	5	100	0.1	1.4	0.0	0.3
July 2015 - 100 to 1,000 µg/L	165,146	3.7[1]	0.4	245,077	1,833,173	6,938,561	100	1,000	0.7	6.9	0.1	1.3
July 2015 - > 1,000 µg/L	0	3.7[1]	0.4	0	0	0	1,000	1,500	0.0	0.0	0.0	0.0
July 2015 Subtotal	499,204								0.8	8.3	0.1	1.5
October 2015 - 5 to 100 µg/L	303,199	3.7[1]	0.4	449,947	3,365,606	12,738,818	5	100	0.1	1.3	0.0	0.2
October 2015 - 100 to 1,000 µg/L	152,180	3.7[1]	0.4	225,835	1,689,247	6,393,799	100	1,000	0.6	6.4	0.1	1.2
October 2015 - > 1,000 µg/L	0	3.7[1]	0.4	0	0	0	1,000	1,500	0.0	0.0	0.0	0.0
October 2015 Subtotal	455,379								0.7	7.7	0.1	1.4
January 2016 - 5 to 100 µg/L	302,982	3.7[1]	0.4	449,625	3,363,194	12,729,690	5	100	0.1	1.3	0.0	0.2
January 2016 - 100 to 1,000 µg/L	159,991	3.7[1]	0.4	237,427	1,775,954	6,721,985	100	1,000	0.7	6.7	0.1	1.2
January 2016 - > 1,000 µg/L	0	3.7[1]	0.4	0	0	0	1,000	1,500	0.0	0.0	0.0	0.0
January 2016 Subtotal	462,973								0.7	8.0	0.1	1.4
May 2016 - 5 to 100 µg/L	299,669	3.7[1]	0.4	444,709	3,326,422	12,590,506	5	100	0.1	1.3	0.0	0.2
May 2016 - 100 to 1,000 µg/L	163,732	3.7[1]	0.4	242,978	1,817,478	6,879,153	100	1,000	0.7	6.9	0.1	1.2
May 2016 - > 1,000 µg/L	0	3.7[1]	0.4	0	0	0	1,000	1,500	0.0	0.0	0.0	0.0
May 2016 Subtotal	463,401								0.8	8.1	0.1	1.5
November 2016 - 5 to 100 µg/L	345,581	3.7[1]	0.4	512,842	3,836,060	14,519,486	5	100	0.1	1.5	0.0	0.3
November - 100 to 1,000 µg/L	151,493	3.7[1]	0.4	224,816	1,681,621	6,364,935	100	1,000	0.6	6.4	0.1	1.2
November 2016 - > 1,000 µg/L	0	3.7[1]	0.4	0	0	0	1,000	1,500	0.0	0.0	0.0	0.0
November 2016 Subtotal	497,074								0.7	7.8	0.1	1.4
South Plume												
October 2014 - 5 to 100 µg/L	*519,800*	8.3[1]	0.4	1,727,815	12,924,058	48,917,558	5	100	0.2	4.9	0.0	0.9
October 2014 - 100 to 1,000 µg/L	*261,500*	8.3[1]	0.4	869,226	6,501,810	24,609,353	100	1,000	2.5	24.6	0.4	4.5
October 2014 - > 1,000 µg/L	*119,000*	8.3[1]	0.4	395,556	2,958,759	11,198,902	1,000	1,500	11.2	16.8	2.0	3.0
October 2014 Subtotal	900,300								13.9	46.3	2.5	8.4

TABLE 2
ESTIMATED QUANTITY OF TCE IN GROUNDWATER
Whirlpool Facility - Fort Smith, Arkansas

GROUNDWATER	Volume of Water						TCE Concentration		Mass of TCE		Volume of TCE	
Date	Plume Area (Square Feet)	Saturated Thickness (Feet)	Total Porosity[2]	Plume Area (Cubic Feet)	Gallons	Liters	Estimated Avg. Min. Concentration Assumed to be Present Throughout the Respective Section of Plume (µg/L)	Estimated Avg. Max. Concentration Assumed to be Present Throughout the Respective Section of Plume (µg/L)	Min. Kg.	Max. Kg.	Min. Vol. (Gallons)	Max. Vol. (Gallons)
January 2015 - 5 to 100 µg/L	*442,344*	8.3[1]	0.4	1,470,351	10,998,229	41,628,296	5	100	0.2	4.2	0.0	0.8
January 2015 - 100 to 1,000 µg/L	*324,537*	8.3[1]	0.4	1,078,761	8,069,132	30,541,665	100	1,000	3.1	30.5	0.6	5.5
January 2015 - 1,000 to 10,000 µg/L	*86,311*	8.3[1]	0.4	286,898	2,145,995	8,122,592	1,000	1,500	8.1	12.2	1.5	2.2
January 2015 - > 10,000 µg/L	*16,637*	8.3[1]	0.4	55,301	413,654	1,565,682	10,000	40,000	15.7	62.6	2.8	11.3
January 2015 Subtotal	869,829								27.0	109.5	4.9	19.8
April 2015 - 5 to 100 µg/L	446,025	8.3[1]	0.4	1,482,587	11,089,752	41,974,709	5	100	0.2	4.2	0.0	0.8
April 2015 - 100 to 1,000 µg/L	320,887	8.3[1]	0.4	1,066,628	7,978,380	30,198,170	100	1,000	3.0	30.2	0.5	5.5
April 2015 - 1,000 to 10,000 µg/L	82,635	8.3[1]	0.4	274,679	2,054,597	7,776,650	1,000	1,500	7.8	11.7	1.4	2.1
April 2015 - > 10,000 µg/L	19,906	8.3[1]	0.4	66,168	494,933	1,873,322	10,000	40,000	18.7	74.9	3.4	13.6
April 2015 Subtotal	869,453								29.7	121.0	5.4	21.9
July 2015 - 5 to 100 µg/L	366,826	8.3[1]	0.4	1,219,330	9,120,586	34,521,416	5	100	0.2	3.5	0.0	0.6
July 2015 - 100 to 1,000 µg/L	439,964	8.3[1]	0.4	1,462,440	10,939,054	41,404,318	100	1,000	4.1	41.4	0.7	7.5
July 2015 - 1,000 to 10,000 µg/L	158,420	8.3[1]	0.4	526,588	3,938,879	14,908,656	1,000	1,500	14.9	22.4	2.7	4.0
July 2015 - > 10,000 µg/L	17,739	8.3[1]	0.4	58,964	441,054	1,669,389	10,000	40,000	16.7	66.8	3.0	12.1
July 2015 Subtotal	982,949								35.9	134.0	6.5	24.3
October 2015 - 5 to 100 µg/L	452,019	8.3[1]	0.4	1,502,511	11,238,783	42,538,795	5	100	0.2	4.3	0.0	0.8
October 2015 - 100 to 1,000 µg/L	410,850	8.3[1]	0.4	1,365,665	10,215,177	38,664,446	100	1,000	3.9	38.7	0.7	7.0
October 2015 - 1,000 to 10,000 µg/L	178,334	8.3[1]	0.4	592,782	4,434,011	16,782,732	1,000	1,500	16.8	25.2	3.0	4.6
October 2015 - > 10,000 µg/L	26,442	8.3[1]	0.4	87,893	657,441	2,488,415	10,000	40,000	24.9	99.5	4.5	18.0
October 2015 Subtotal	1,067,645								45.7	167.6	8.3	30.4
January 2016 - 5 to 100 µg/L	471,252	8.3[1]	0.4	1,566,442	11,716,984	44,348,784	5	100	0.2	4.4	0.0	0.8
January 2016 - 100 to 1,000 µg/L	432,480	8.3[1]	0.4	1,437,562	10,752,966	40,699,976	100	1,000	4.1	40.7	0.7	7.4
January 2016 - 1,000 to 10,000 µg/L	185,422	8.3[1]	0.4	616,344	4,610,254	17,449,810	1,000	1,500	17.4	26.2	3.2	4.7
January 2016 - > 10,000 µg/L	26,570	8.3[1]	0.4	88,320	660,636	2,500,506	10,000	40,000	25.0	100.0	4.5	18.1
January 2016 Subtotal	1,115,725								46.7	171.3	8.5	31.0

TABLE 2
ESTIMATED QUANTITY OF TCE IN GROUNDWATER
Whirlpool Facility - Fort Smith, Arkansas

GROUNDWATER	Volume of Water						TCE Concentration		Mass of TCE		Volume of TCE	
Date	Plume Area (Square Feet)	Saturated Thickness (Feet)	Total Porosity[2]	Plume Area (Cubic Feet)	Gallons	Liters	Estimated Avg. Min. Concentration Assumed to be Present Throughout the Respective Section of Plume (µg/L)	Estimated Avg. Max. Concentration Assumed to be Present Throughout the Respective Section of Plume (µg/L)	Min. Kg.	Max. Kg.	Min. Vol. (Gallons)	Max. Vol. (Gallons)
May 2016 - 5 to 100 µg/L	500,800	8.3[1]	0.4	1,664,659	12,451,651	47,129,498	5	100	0.2	4.7	0.0	0.9
May 2016 - 100 to 1,000 µg/L	411,507	8.3[1]	0.4	1,367,849	10,231,513	38,726,275	100	1,000	3.9	38.7	0.7	7.0
May 2016 - 1,000 to 10,000 µg/L	182,314	8.3[1]	0.4	606,012	4,532,968	17,157,283	1,000	1,500	17.2	25.7	3.1	4.7
May 2016 - > 10,000 µg/L	26,570	8.3[1]	0.4	88,320	660,636	2,500,506	10,000	40,000	25.0	100.0	4.5	18.1
May 2016 Subtotal	1,121,191								46.3	169.2	8.4	30.6
November 2016 - 5 to 100 µg/L	610,474	8.3[1]	0.4	2,029,216	15,178,533	57,450,746	5	100	0.3	5.7	0.1	1.0
November 2016 - 100 to 1,000 µg/L	448,303	8.3[1]	0.4	1,490,159	11,146,391	42,189,088	100	1,000	4.2	42.2	0.8	7.6
November 2016 - 1,000 to 10,000 µg/L	183,846	8.3[1]	0.4	611,104	4,571,059	17,301,457	1,000	1,500	17.3	26.0	3.1	4.7
November 2016 - > 10,000 µg/L	27,485	8.3[1]	0.4	91,360	683,374	2,586,570	10,000	40,000	25.9	103.5	4.7	18.7
November 2016 Subtotal	1,270,108								47.7	177.3	8.6	32.1
Northeast Plume												
October 2014 - 5 to 100 µg/L	*187,600*	4.4[1]	0.4	330,926	2,475,329	9,369,122	5	100	0.0	0.9	0.0	0.2
October 2014 - 100 to 1,000 µg/L	*69,200*	4.4[1]	0.4	122,069	913,075	3,455,987	100	1,000	0.3	3.5	0.1	0.6
October 2014 - > 1,000 µg/L	*0*	4.4[1]	0.4	0	0	0	1,000	1,500	0.0	0.0	0.0	0.0
October 2014 Subtotal	256,800								0.4	4.4	0.1	0.8
January 2015 - 5 to 100 µg/L	*166,439*	4.4[1]	0.4	293,598	2,196,116	8,312,299	5	100	0.0	0.8	0.0	0.2
January 2015 - 100 to 1,000 µg/L	*74,000*	4.4[1]	0.4	130,536	976,409	3,695,709	100	1,000	0.4	3.7	0.1	0.7
January 2015 - > 1,000 µg/L	*0*	4.4[1]	0.4	0	0	0	1,000	1,500	0.0	0.0	0.0	0.0
January 2015 Subtotal	240,439								0.4	4.5	0.1	0.8
April 2015 - 5 to 100 µg/L	183,000	4.4[1]	0.4	322,812	2,414,634	9,139,389	5	100	0.0	0.9	0.0	0.2
April 2015 - 100 to 1,000 µg/L	70,500	4.4[1]	0.4	124,362	930,228	3,520,912	100	1,000	0.4	3.5	0.1	0.6
April 2015 - > 1,000 µg/L	0	4.4[1]	0.4	0	0	0	1,000	1,500	0.0	0.0	0.0	0.0
April 2015 Subtotal	253,500								0.4	4.4	0.1	0.8
July 2015 - 5 to 100 µg/L	176,731	4.4[1]	0.4	311,753	2,331,916	8,826,302	5	100	0.0	0.9	0.0	0.2
July 2015 - 100 to 1,000 µg/L	76,915	4.4[1]	0.4	135,678	1,014,872	3,841,290	100	1,000	0.4	3.8	0.1	0.7
July 2015 - > 1,000 µg/L	0	4.4[1]	0.4	0	0	0	1,000	1,500	0.0	0.0	0.0	0.0
July 2015 Subtotal	253,646								0.4	4.7	0.1	0.9

TABLE 2
ESTIMATED QUANTITY OF TCE IN GROUNDWATER
Whirlpool Facility - Fort Smith, Arkansas

GROUNDWATER	Volume of Water						TCE Concentration		Mass of TCE		Volume of TCE	
Date	Plume Area (Square Feet)	Saturated Thickness (Feet)	Total Porosity[2]	Plume Area (Cubic Feet)	Gallons	Liters	Estimated Avg. Min. Concentration Assumed to be Present Throughout the Respective Section of Plume (µg/L)	Estimated Avg. Max. Concentration Assumed to be Present Throughout the Respective Section of Plume (µg/L)	Min. Kg.	Max. Kg.	Min. Vol. (Gallons)	Max. Vol. (Gallons)
October 2015 - 5 to 100 µg/L	160,153	4.4[1]	0.4	282,510	2,113,174	7,998,364	5	100	0.0	0.8	0.0	0.1
October 2015 - 100 to 1,000 µg/L	77,178	4.4[1]	0.4	136,142	1,018,342	3,854,425	100	1,000	0.4	3.9	0.1	0.7
October 2015 - > 1,000 µg/L	0	4.4[1]	0.4	0	0	0	1,000	1,500	0.0	0.0	0.0	0.0
October 2015 Subtotal	237,331								0.4	4.7	0.1	0.8
January 2016 - 5 to 100 µg/L	160,000	4.4[1]	0.4	282,240	2,111,156	7,990,726	5	100	0.0	0.8	0.0	0.1
January 2016 - 100 to 1,000 µg/L	80,142	4.4[1]	0.4	141,370	1,057,448	4,002,441	100	1,000	0.4	4.0	0.1	0.7
January 2016 - > 1,000 µg/L	0	4.4[1]	0.4	0	0	0	1,000	1,500	0.0	0.0	0.0	0.0
January 2016 Subtotal	240,142								0.4	4.8	0.1	0.9
May 2016 - 5 to 100 µg/L	160,000	4.4[1]	0.4	282,240	2,111,156	7,990,726	5	100	0.0	0.8	0.0	0.1
May 2016 - 100 to 1,000 µg/L	80,142	4.4[1]	0.4	141,370	1,057,448	4,002,441	100	1,000	0.4	4.0	0.1	0.7
May 2016 - > 1,000 µg/L	0	4.4[1]	0.4	0	0	0	1,000	1,500	0.0	0.0	0.0	0.0
May 2016 Subtotal	240,142								0.4	4.8	0.1	0.9
November 2016 - 5 to 100 µg/L	189,715	4.4[1]	0.4	334,657	2,503,236	9,474,749	5	100	0.0	0.9	0.0	0.2
November 2016 - 100 to 1,000 µg/L	82,223	4.4[1]	0.4	145,041	1,084,909	4,106,382	100	1,000	0.4	4.1	0.1	0.7
November 2016 - > 1,000 µg/L	0	4.4[1]	0.4	0	0	0	1,000	1,500	0.0	0.0	0.0	0.0
November 2016 Subtotal	271,938								0.5	5.1	0.1	0.9

Notes:
1: Saturated thickness estimated from 4th Quarter 2014 RADD sampled wells and new 4th Quarter well completions (see Table 1).
2: Total porosity estimated from Freeze and Cherry (1979).
TCE: Trichloroethylene
µg/L: Micrograms per liter

Appendix F

Action Plan





APPENDIX F
Action Plan
Whirlpool Corporation
Fort Smith, Arkansas

Prepared for:
Whirlpool Corporation

Prepared by:
Ramboll Environ US Corporation

Date:
February 2017

Project Number:
34-37500Q

RAMBOLL ENVIRON

Table of Contents

Page

1 Introduction 1

2 Data Summary 3
2.1 Southern Plume (MW-189) 3
2.2 Northern Plume (MW-194) 3

3 Action Plan 4
3.3 Addendum to the Action Plan 6
3.4 Schedule 7

List of Figures

Figure 1: Temporary Boring Locations (Southern Plume)
Figure 2: Temporary Boring Locations (Northern and Northeastern Plumes)

List of Appendices

Appendix A: Figure 2A, 2016 Annual Sampling TCE Isoconcentration Map Northern and Northeastern Plumes
Appendix B: Figure 2B, 2016 Annual Sampling TCE Isoconcentration Map Southern Plume

1 Introduction

Ramboll Environ US Corporation (Ramboll Environ), on behalf of Whirlpool Corporation (Whirlpool), is submitting this Action Plan in accordance with the Arkansas Department of Environmental Quality (ADEQ) approved September 2016 Revised Groundwater Monitoring Plan (RGWMP) for the Whirlpool site in Fort Smith, Arkansas. In accordance with the RGWMP, an action plan is required whenever "expansion of the plume is confirmed by validated data indicating constituent concentrations exceeding remedial action levels (RALs) collected during two consecutive monitoring events." Based upon review of the November 2016 groundwater monitoring data and subsequent data validation, trichloroethene (TCE) concentrations in groundwater at monitoring well locations MW-189 and MW-194 have been determined to exceed the TCE RALs [i.e. 5 micrograms per liter (µg/L)] during two consecutive monitoring events. Further discussion is presented below regarding the data for MW-189 (south plume) and MW-194 (north plume) which triggered preparation of this Action Plan, followed by discussion of additional investigation proposed to further assess impacted groundwater in the vicinity of both wells.

The groundwater monitoring data from 2016 is summarized in the 2016 Annual Report. The groundwater monitoring data from 2016 indicates generally decreasing to stable trends for TCE concentrations in groundwater across the site as briefly summarized below:

- Plume boundary well data continue to show results generally consistent with historical TCE concentrations although trends in the northern portion of the plume near MW-61R have decreased due to in-situ chemical reduction (ISCR) injections and concentrations near the eastern plume boundary in the vicinity of MW-194 (subject of this Action Plan) appear to have increased (see Figure 2A in Appendix A);
- Offsite well data are similar to previous monitoring events and continue to show generally decreasing to stable TCE concentration trends;
- Onsite well data continue to show generally decreasing to stable TCE concentration trends; although, the data has been influenced by the in-situ chemical oxidation (ISCO) injections; and
- Plume boundary well data continue to show results generally consistent with historical TCE concentrations although trends in the south portion of the south plume in the vicinity of MW-189 (subject of this Action Plan) indicate higher concentrations (see Figure 2B in Appendix B).

Notwithstanding of the groundwater data at MW-189 and MW-194 which indicates TCE concentrations marginally exceeding the RAL at the plume boundaries, which caused the basis for this Action Plan, it is important to note that:

- No complete exposure pathways exist (i.e. direct exposure, consumption or vapor intrusion), therefore there is no unacceptable risk to human health or the environment;
- MW-189 is located on the Whirlpool property and a deed restriction exists to preclude use of shallow groundwater; and

- Whirlpool has completed a settlement agreement with the property owner at the location of MW-194 (including settlement agreements with other property owners in the vicinity of MW-194 and west of Jenny Lind Road) which includes a deed restriction precluding the use of shallow groundwater.

2 Data Summary

2.1 Southern Plume (MW-189)

MW-189 is located at the southern edge of the southern plume, and was first sampled in September 2015 immediately following well installation. The initial TCE concentration in groundwater at MW-189 was 2.4 µg/L. The wells along the south property boundary including MW-189 were positioned based upon the data from the Property Boundary Investigation Report, November 2014 which provided site characterization data regarding TCE impacts in the subsurface based upon performance of membrane interface probes, soil probes and collection of groundwater samples from soil probes. Subsequent groundwater monitoring events at MW-189 in October 2015, January 2016 and May 2016 resulted in TCE concentrations of 4.1, 4.5 and 5.5 µg/L, respectively. The TCE concentration in MW-189 in November 2016 (i.e. collected during the Annual Groundwater Monitoring Event) was 10.2 µg/L.

2.2 Northern Plume (MW-194)

MW-194 was installed on the west side of Jenny Lind Road in August 2016 in preparation for the Jenny Lind Road construction activities and was sampled for the first time immediately following well installation. Previous monitoring wells MW-66 and MW-67 were located on the east side of Jenny Lind Road. TCE concentrations in MW-66 ranged from 0.53 µg/L to 3.3 µg/L during the last year of monitoring, and TCE concentrations in MW-67 were below detection limits (i.e. less than 0.17 µg/L) during the last year of prior to well abandonment in August 2016. The TCE concentration in MW-194 was 6.6 µg/L when the well was installed in August 2016. MW-194 was sampled again during the Annual Monitoring Event in November 2016 and the TCE concentration was 12.7 µg/L. Although the August 2016 sampling event and the November 2016 monitoring event do not represent the two consecutive monitoring events as described in the Groundwater Monitoring Plan (i.e. two consecutive groundwater monitoring events as described in the Groundwater Monitoring Plan over a one year period), Whirlpool is proactively implementing this Action Plan as a result of the data collected during the three month period in late 2016.

3 Action Plan

3.1 Southern Plume Investigation at MW-189

Additional investigation is proposed to be completed in the area of MW-189 to refine the understanding of:

- Groundwater flow in the vicinity of MW-189 due to the south, southeast and southwest gradients observed in the vicinity of MW-189;
- Further delineation of TCE concentrations exceeding the RAL in the vicinity of MW-189; and
- Assess TCE concentrations up-gradient of MW-189 (to assess appropriate reagent dosing, if supplemental remediation should be determined to be warranted).

An investigation will be completed to refine understanding of where TCE concentrations exceed the RAL as well as the localized groundwater gradient and flow path moving towards MW-186 and MW-189. MW-189 is at the edge of a transition zone in terms of groundwater gradient and the easterly edge of the south plume. Additional temporary wells will result in a better understanding of the edge of the plume and local groundwater gradient.

Four temporary groundwater wells will be installed consisting of three wells radially from MW-189 (north, south and west) and one well located north of MW-186 as depicted on Figure 1. A well is not proposed to be installed to the east of MW-189 since MW-190 is located 450 feet east of MW-189 and the groundwater elevation at MW-190 has always been higher than the elevation at MW-189 since these wells were installed in September 2015 (i.e. indicating a westerly groundwater gradient between these two wells since installation).

A soil probe, hollow stem auger or sonic drilling rig will be used to install temporary groundwater monitoring wells in the vicinity of MW-189. Alternative drilling mechanisms may be necessary since the total depths of these temporary groundwater monitoring wells will be approximately 40 feet below the surrounding grade. The temporary groundwater monitoring wells will be installed to total depths targeting the top of the shale at the base of the basal transmissive zone. Soil cores will be collected at strategic depths from each location (continuous sampling will commence at depths below 20 feet below surface at each location based upon results from previous investigations) while drilling to confirm the stratigraphic profile and determine the appropriate screened interval for the temporary groundwater monitoring well. Each borehole will be logged by a Ramboll Environ geologist. The temporary monitoring points will be constructed with five to ten feet of 1 inch diameter, 0.01 inch slot PVC screen and 1 inch diameter, solid flush threaded schedule 40 PVC riser pipe to the surface. A 20/40 grade sand pack will be installed in the well annulus around the PVC screen to approximately 2 feet above the top of the screen followed by hydrated bentonite chips to grade. The top of the well casing will be set at least 1 foot above grade, and will be surveyed for elevation and location immediately following installation of the temporary groundwater monitoring well.

The temporary groundwater monitoring wells will be installed prior to the spring semi-annual groundwater monitoring event tentatively scheduled for April 2017 (i.e. approximately one week

or less prior to the groundwater monitoring event) (see Schedule for Implementation at the end of this Action Plan for further discussion of the schedule). After installation, the wells will be developed, allowed to stabilize, and then groundwater levels will be measured. During the semi-annual groundwater monitoring event, water levels will again be measured and groundwater samples will be collected utilizing low flow sampling techniques. A minimum of one casing volume will be removed from the well while monitoring pH, conductivity, dissolved oxygen (DO) and oxidation reduction potential (ORP). At stabilization of these parameters to within ten percent, groundwater samples will be collected. The groundwater samples will be analyzed for volatile organic compounds (VOCs). After the semi-annual monitoring event, the PVC well casings will be pulled and the remaining borehole annulus will be sealed with bentonite for proper well closure. We anticipate the temporary wells will remain open approximately one to two weeks prior to well closure.

Due to the well-established background conditions at groundwater monitoring wells throughout the south plume, and based upon the specific data objectives presented for this investigation (i.e. characterization of flow and TCE concentrations), the collection of additional soil or groundwater samples and analysis of other parameters for these samples is not necessary.

The soil cuttings generated from temporary well installation and abandonment activities will be collected and containerized in 55 gallon drums and staged on the former Whirlpool manufacturing facility property. Water generated from decontamination, well development, purging and sampling activities will also containerized for disposal.

3.2 Northern Plume Investigation at MW-194

Additional investigation is proposed to be completed in the area of MW-194 to refine the understanding of:

- Groundwater flow in the vicinity of MW-194;
- Further delineation of TCE concentrations exceeding the RAL in the vicinity of MW-194; and
- Assess TCE concentrations up-gradient of MW-194 (to assess appropriate reagent dosing, if supplemental remediation should be determined to be warranted).

The investigation will consist of four temporary groundwater monitoring wells, which will be located at the locations depicted on Figure 2; although the final locations will be dependent upon available physical access to these locations due to structures, landscaping, pavement and utilities (access agreements have been secured by Whirlpool from the respective property owners).

Prior to initiating drilling activities for the installation of the temporary wells, both Arkansas One-Call Utility Locating Services and a private utility locator will be contacted to identify underground utilities and other potential obstructions in the work areas.

A soil probe drilling rig will be used to install temporary groundwater monitoring wells. The temporary groundwater monitoring wells are proposed to be installed to total depths targeting

the top of the shale at the base of the basal transmissive zone. Soil cores will be collected at strategic depths from each location (continuous sampling will commence at depths below 10 feet below surface at each location based upon results from previous investigations) while drilling to confirm the stratigraphic profile and determine the appropriate screened interval for the temporary groundwater monitoring well. Each borehole will be logged by a Ramboll Environ geologist. The temporary groundwater monitoring wells will be constructed with five to ten feet of 1 inch diameter, 0.01 inch slot PVC screen and 1 inch diameter, solid flush threaded schedule 40 PVC riser pipe to the surface. A 20/40 grade sand pack will be installed in the well annulus around the PVC screen to approximately 2 feet above the top of the screen followed by hydrated bentonite chips to grade. The top of the well casing will be set at least 1 foot above grade, and will be surveyed for elevation and location immediately following installation of the temporary groundwater monitoring well.

The temporary groundwater monitoring wells will be installed prior to the spring semi-annual monitoring event tentatively scheduled for April 2017 (i.e. approximately one week or less prior to the groundwater monitoring event) (see Schedule for Implementation at the end of this Action Plan for further discussion of the schedule). After installation, the wells will be developed, allowed to stabilize, and then groundwater levels will be measured. During the semi-annual groundwater monitoring event, water levels will again be measured and groundwater samples will be collected utilizing low flow sampling techniques. A minimum of one casing volume will be removed from the well while monitoring pH, conductivity, DO and ORP. At stabilization of these parameters to within ten percent, groundwater samples will be collected. The groundwater samples will be analyzed for VOCs. After the semi-annual monitoring event, the PVC well casings will be pulled and the remaining borehole annulus will be sealed with bentonite for proper well closure. We anticipate the temporary wells will remain open approximately one to two weeks prior to well closure.

Due to the well-established background conditions at groundwater monitoring wells throughout the north plume, and based upon the specific data objectives presented for this investigation (i.e. characterization of flow and TCE concentrations), the collection of additional soil or groundwater samples and analysis of other parameters for these samples is not necessary.

The soil cuttings generated from temporary well installation and abandonment activities will be collected and containerized in 55 gallon drums and staged on the former Whirlpool manufacturing facility property. Water generated from decontamination, well development, purging and sampling activities will also containerized for disposal.

3.3 Addendum to the Action Plan

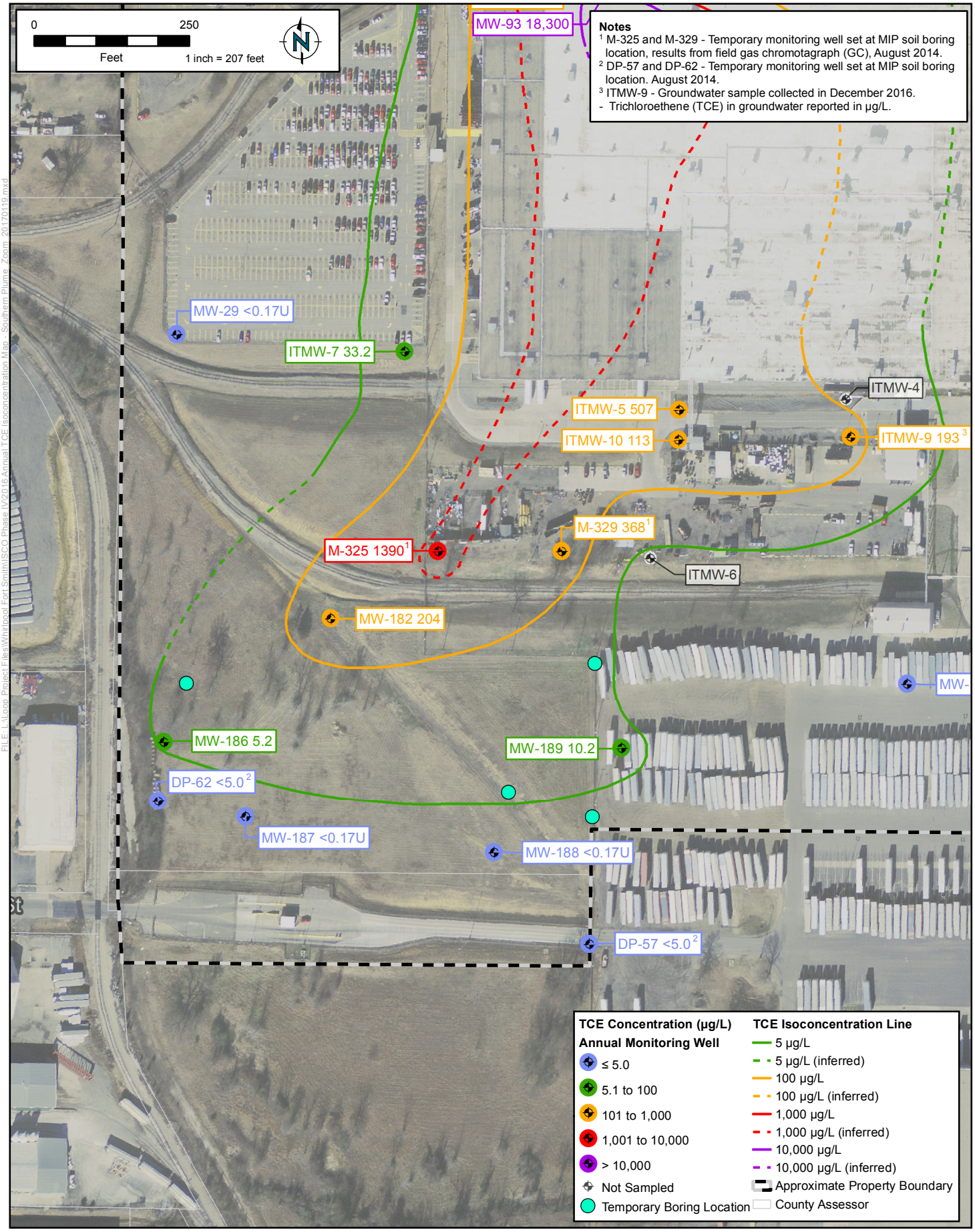
An Addendum to this Action Plan will be prepared after receipt of the data from the investigations described above and from the semi-annual 2017 groundwater monitoring event. This Addendum to the Action Plan will summarize the data from the supplemental investigations in the vicinity of MW-189 and MW-194 and applicable semi-annual groundwater monitoring data in the vicinity of the subject wells. The Addendum will describe remedies necessary to address TCE concentrations that exceed the RAL in the vicinity of these wells, if supplemental remediation is warranted.

As discussed during our meeting on January 30, 2017, and based on the performance of the In-Situ Chemical Reduction (ISCR) performed in the vicinity of MW-61R, we anticipate the Addendum will propose a similar remedial approach for the subject areas at MW-189 and MW-194, if supplemental remediation is warranted.

3.4 Schedule

We anticipate comments from ADEQ on this Action Plan will be addressed to facilitate finalizing the investigation phase of the Action Plan by mid to late March 2017. This will facilitate sequential performance of the proposed investigation followed by the spring semi-annual groundwater monitoring event in mid to late April 2017. The data from the proposed investigation and spring semi-annual monitoring event are anticipated by mid May 2017 (assuming the investigation and monitoring is completed by late April 2017). An Addendum to this Action Plan will be prepared and submitted to ADEQ within 60 days of receipt of the laboratory data (in accordance with the RGWMP, the letter report summarizing the data from the semi-annual spring sampling event is due to ADEQ by July 15, 2017). If the supplemental investigation data indicates that the TCE concentrations detected at MW-189 and MW-194 are indicative of conditions (as further delineated) that warrant more aggressive response than continued monitoring, the Addendum will propose specific remedial actions to reduce TCE concentrations at and/or near these plume boundary locations.

Figures



FILE: L:\Loop Project Files\Whirlpool Fort Smith\SCO Phase IV\2016 Annual TCE Isoconcentration Map - Southern Plume_Zoom_20170119.mxd

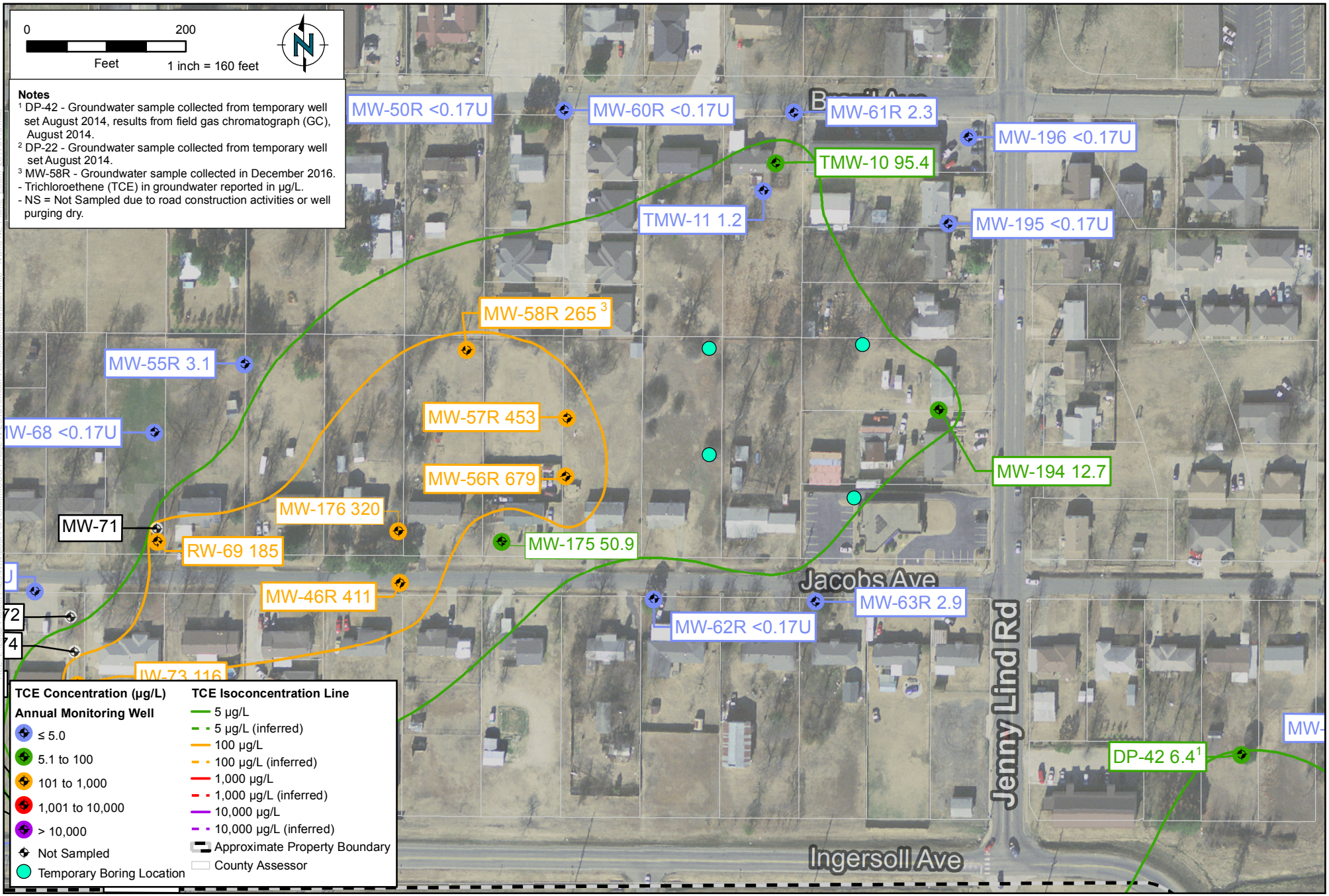
RAMBOLL ENVIRON

TEMPORARY BORING LOCATIONS
SOUTHERN PLUME

Whirlpool Facility - Fort Smith, Arkansas

Figure 1

DRAFTED BY: FK/NA | DATE: 01/26/2017 | PROJECT: 3437500Q



RAMBOLL ENVIRON

DRAFTED BY: FK/NA | DATE: 01/26/2017

TEMPORARY BORING LOCATIONS NORTHERN PLUME

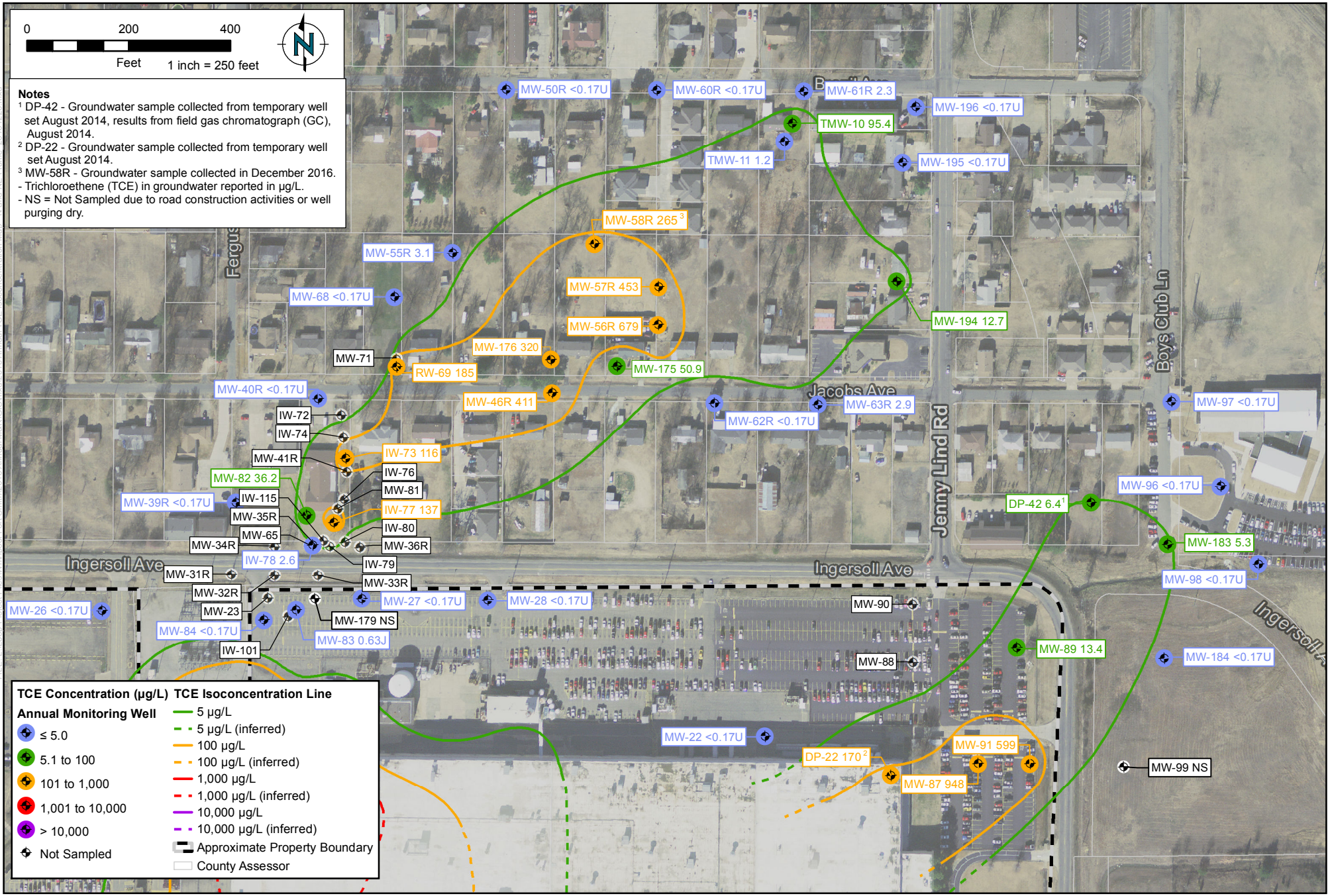
Whirlpool Facility - Fort Smith, Arkansas

Figure 2

PROJECT: 3437500Q

Appendix A

Figure 2A, 2016 Annual Sampling TCE Isoconcentration Map Northern and Northeastern Plumes



RAMBOLL ENVIRON

DRAFTED BY: FK | DATE: 01/24/2017

2016 ANNUAL SAMPLING TCE ISOCONCENTRATION MAP NORTHERN AND NORTHEASTERN PLUMES

Whirlpool Facility - Fort Smith, Arkansas

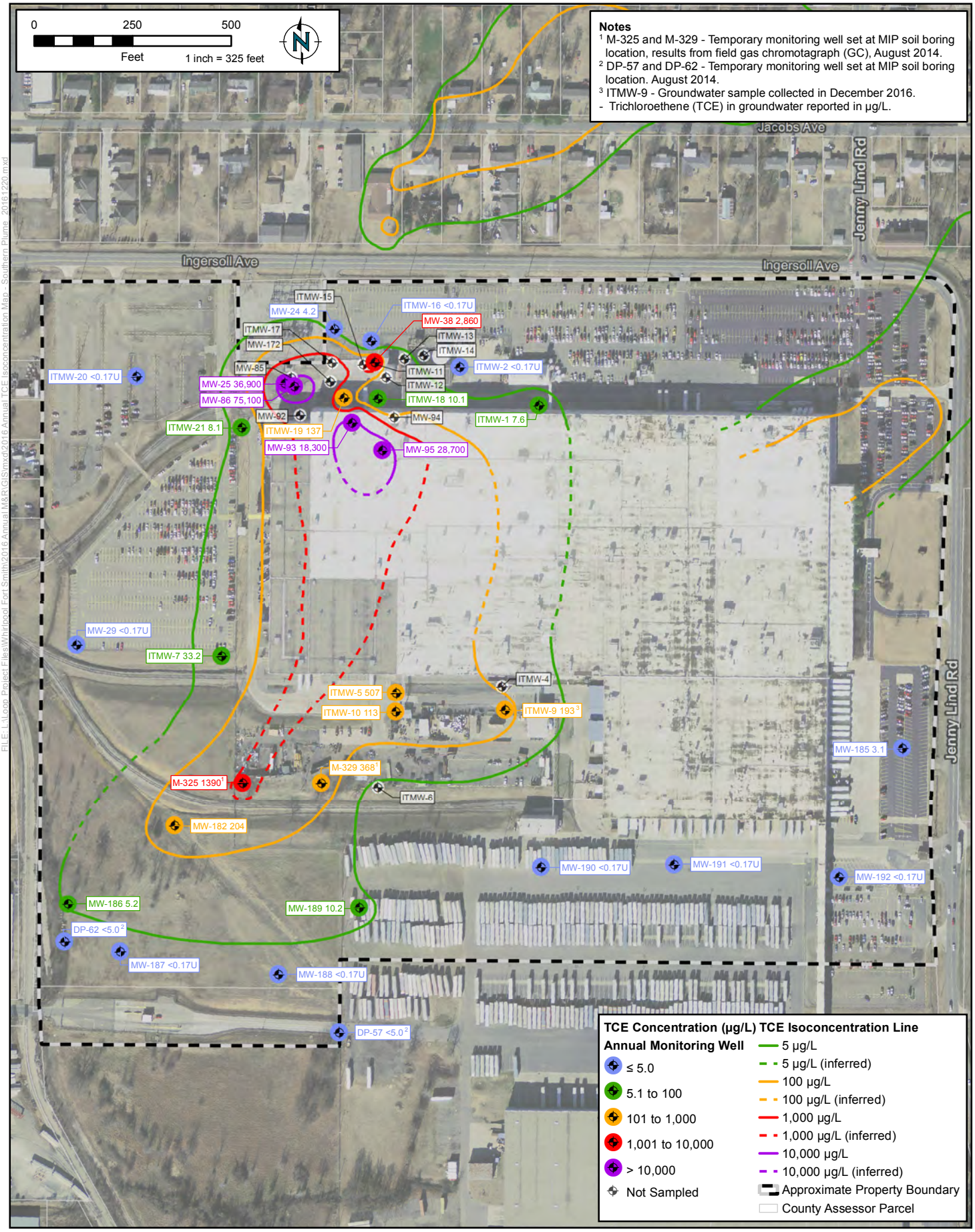
Figure 2A

PROJECT: 3437500Q

FILE: L:\Loop Project Files\Whirlpool Fort Smith\2016 Annual M&R\GIS\mxd\2016 Annual TCE Isoconcentration Map - N and NE Plume_20161220.mxd

Appendix B

Figure 2B, 2016 Annual Sampling TCE Isoconcentration Map Southern Plume



RAMBOLL ENVIRON

2016 ANNUAL SAMPLING TCE ISOCONCENTRATION MAP SOUTHERN PLUME

Whirlpool Facility - Fort Smith, Arkansas

Figure 2B

DRAFTED BY: FK | DATE: 12/20/2016 | PROJECT: 3437500Q