

**REVISED
TREATMENT TECHNOLOGY
PILOT STUDY WORK PLAN**

**FORMER TIMEX FACILITY
LITTLE ROCK, ARKANSAS**

Prepared for:

Timex Corporation
Middlebury, Connecticut

Prepared by:

Weston Solutions, Inc.
45 Constitution Avenue, Suite 100
Concord, New Hampshire 03301

September 2014

Work Order No. 13568.004.001

TABLE OF CONTENTS

Section	Page
1. INTRODUCTION.....	1-1
2. SITE DESCRIPTION AND BACKGROUND.....	2-1
2.1 HYDROGEOLOGIC SETTING	2-2
2.1.1 Geology.....	2-2
2.1.2 Hydrogeology	2-3
2.2 NATURE AND EXTENT OF CONTAMINATION	2-4
2.2.1 Soil Contamination	2-6
2.2.2 Groundwater Contamination.....	2-6
2.3 SELECTED REMEDIAL ALTERNATIVE	2-6
2.4 ISCO PILOT TEST WORK PLAN	2-7
3. IN SITU CHEMICAL OXIDATION TECHNOLOGY.....	3-1
3.1 TECHNOLOGY DESCRIPTION	3-1
3.2 CHEMICAL OXIDANT SELECTION.....	3-1
3.3 PILOT TEST OBJECTIVES	3-3
4. LABORATORY TREATABILITY TESTING	4-1
4.1 SAMPLE COLLECTION METHODS	4-1
4.1.1 Soil Samples.....	4-1
4.1.2 Groundwater Samples.....	4-2
4.2 LABORATORY OXIDATION TESTING – PERMANGANATE.....	4-2
4.2.1 Materials and Solution Preparation.....	4-2
4.2.2 Testing Procedure	4-2
4.3 LABORATORY OXIDATION TESTING – PERSULFATE	4-4
4.3.1 Materials and Solution Preparation.....	4-4
4.3.2 Testing Procedure	4-5
4.4 SAMPLE COLLECTION.....	4-7
4.5 DATA ANALYSIS.....	4-7
5. FIELD INJECTION PILOT TEST	5-1
5.1 INJECTION TESTING OF SMALL-DIAMETER WELL POINTS.....	5-2
5.2 INJECTION TESTING USING DIRECT PUSH BORINGS	5-3
5.3 INJECTION TESTING OF EXISTING MONITORING WELLS.....	5-4
5.4 DATA ANALYSIS AND REPORTING.....	5-4

TABLE OF CONTENTS (CONTINUED)

Section	Page
6. SCHEDULE.....	6-1
7. REFERENCES.....	7-1

APPENDIX A OXIDANT INFORMATION

**APPENDIX B CENTRAL ARKANSAS WATER APPROVAL LETTER
AND WATER TEST RESULTS**

LIST OF FIGURES

Title

Figure 1	Site Location
Figure 2	Site Plan
Figure 3	Distribution of TCE in Shallow Sand Aquifer
Figure 4	Distribution of TCE in Deep Sand Aquifer
Figure 5	Locations of Injection Testing Points
Figure 6	Treatment Technology Pilot Study Implementation Schedule

LIST OF ACRONYMS

ADEQ	Arkansas Department of Environmental Quality
Airport	Little Rock National Airport
CAO	Consent Administrative Order
COPCs	contaminants of potential concern
cy	cubic yards
1,1-DCA	1,1-dichloroethane
1,1-DCE	1,1-dichloroethene
cis-1,2-DCE	cis-1,2-dichloroethene
DI	deionized
DO	dissolved oxygen
ft	feet
ft/day	feet per day
ft/year	feet per year
FTN	FTN Associates, Ltd.
ISCO	in situ chemical oxidation
mg/L	milligrams per liter
mL	milliliter
MNA	monitored natural attenuation
ORP	oxygen reduction potential
PCE	tetrachloroethene
%	percent
PID	photo-ionization detector
PVC	polyvinyl chloride
RAA	Remedial Alternative Analysis
RADD	Remedial Action Decision Document
RAL	Remedial Action Level
Site	former Timex facility, 2215 Crisp Drive, Little Rock, Arkansas
1,1,1-TCA	1,1,1-trichloroethane
TCE	trichloroethene
Timex	Timex Group USA
UIC	Underground Injection Control
VOC	volatile organic compound
Work Plan	Treatment Technology Pilot Test Work Plan

SECTION 1

INTRODUCTION

1. INTRODUCTION

Weston Solutions, Inc. has prepared this Treatment Technology Pilot Test Work Plan (Work Plan) on behalf of the Timex Group USA (Timex) for the former Timex facility previously located at 2215 Crisp Drive in Little Rock, Arkansas. This Work Plan was prepared to satisfy the requirements of the First Amendment to Consent Administrative Order (CAO) LIS-04-206 between Timex and the Arkansas Department of Environmental Quality (ADEQ).

In August 2011, Timex completed a Remedial Alternative Analysis (RAA) that evaluated various remediation technologies to address soil and groundwater contamination associated with the Site. The RAA recommended excavation and off-site disposal of source area soils and treatment of shallow groundwater using in situ chemical oxidation (ISCO). These technologies would be combined with institutional controls and monitored natural attenuation (MNA) to mitigate potential future exposures and ultimately return the groundwater to productive use, respectively. The RAA was accepted by ADEQ and they subsequently issued a Remedial Action Decision Document (RADD) that described the approved remedy. The RADD was issued for public comment on 20 January 2014 and finalized on 27 February 2014. Simultaneously, Timex and ADEQ agreed upon an Amendment to the CAO that specifies the selected remedy and lists required milestones. The CAO requires that a Work Plan be submitted to confirm that ISCO will be effective at meeting the approved cleanup goals for the Site and to obtain data needed to complete full-scale design of such a system.

This Work Plan describes the tasks that will be performed to verify parameters needed to complete design of the ISCO remedy selected by ADEQ to address impacted groundwater related to the Site. Specifically, this Work Plan describes tasks developed to confirm the injection technology and spacing to be used and to verify the oxidant dosage that will be required to achieve the approved cleanup goal.

SECTION 2

SITE DESCRIPTION AND BACKGROUND

2. SITE DESCRIPTION AND BACKGROUND

For the purposes of the remedial action, the “Site” is considered to be the former Timex facility located at 2215 Crisp Drive in Little Rock, Arkansas, as well as all contiguous property owned by the Little Rock National Airport Authority. Figure 1 shows the approximate location of the Site. The 9-acre former Timex parcel is zoned as light industrial (I-2) and is currently a fenced vacant lot partially covered by aged asphalt and grassy vegetation (see Figure 2). Land uses in the vicinity of the Site include vacant land, Civil Air Patrol and Army Reserve facilities, aircraft support services, and light industrial operations. A residential neighborhood of small single-family homes is located about 700 feet (ft) north of the former Timex parcel.

The subject property is owned by the Little Rock National Airport (Airport) and was formerly leased to Timex. Timex historically manufactured watches, clocks, and cameras at the Site between 1947 and August 2000, when operations ceased and all products were removed. The Airport demolished the vacant 225,000 square-foot historical split-level manufacturing building in January 2005. Prior to 1947, the Site had been used for the storage and assembly of aircraft engines and for cotton storage.

Manufacturing processes formerly conducted by Timex at the Site included cutting, stamping, grinding, sanding, and plating metal and aluminum watch bezels and case backs, as well as injection molding of plastic watch cases. Various metals including copper, chromium, nickel, and gold were used in the metal plating processes. Oils and industrial solvents were used in the various metal working processes.

Prior to discontinuation of manufacturing operations, the Airport conducted a Phase I Environmental Site Assessment. A Phase II investigation conducted jointly by Timex and the Airport discovered that past operations involving chlorinated solvents had affected groundwater quality beneath the property and recommended that further investigation be conducted to define the source and extent of the impact. As a result, Timex entered into a CAO for voluntary action with ADEQ on 28 December 2004. The CAO required that Timex submit a *Site Investigation Report* and a RAA. The *Site Investigation Report* was submitted on 23 August 2007 by FTN Associates Ltd., and was conditionally approved by ADEQ in a letter dated 2 December 2008.

Additional documents detailing subsequent investigations conducted in an effort to respond to the ADEQ conditions presented in the approval letter have since been submitted.

Following completion of the site investigation, a RAA was performed to evaluate remedial options in accordance with the second requirement of the CAO. The RAA recommended a remedial approach that consisted of a combination of active remediation, institutional controls, and MNA. The active remediation would consist of excavation and off-site disposal of source area soils and ISCO treatment of contamination within the shallow aquifer. The RAA describes the remedy that formed the basis of the Final RADD issued on 27 February 2014.

2.1 HYDROGEOLOGIC SETTING

The Site is relatively flat and located about 255 ft above mean sea level. Surface/storm water drainage is primarily to the west through shallow, unlined storm drains, and ditches that discharge to a larger ditch along Bond Avenue that is part of the City of Little Rock drainage system. Flow within the larger ditch continues south for approximately 1 mile and enters Fourche Creek, which discharges to the Arkansas River approximately 0.9 mile north of the Site (FTN, 2007a).

2.1.1 Geology

Regional geology is characterized by 75 to 100 ft of Quaternary alluvium overlying older, more consolidated, Tertiary deposits of the Wilcox and Midway Groups. The Quaternary alluvium is a relatively thick sequence of fluvial deposits from the Arkansas and Mississippi Rivers and their tributaries that is composed primarily of sand, silt, and clay. These deposits make up the Surficial Alluvial Aquifer System.

Based on information gathered during previous investigations (FTN, 2007b), site geology is characterized by a surficial silt and clay unit overlying two predominate sand layers separated by a confining clay unit. The units are summarized below in descending order from the ground surface.

- **Surficial Silt and Clay:** A sequence of interbedded sandy silts and clays extending from approximately 2 to 13 ft below the ground surface. Thin discontinuous silty sand lenses are also present and may be associated with paleo channels. A silty clay or clay

layer 2 to 4 ft thick typically marks the base of this unit (also sometimes referred to as the “upper clay”).

- **Shallow Sand:** This unit ranges in thickness from 3 to 14 ft and consists of reddish brown to brown silty sands and sandy silts.
- **Confining Clay:** The shallow sand unit is underlain by a reddish-brown to brown clay that is approximately 14 to 22 ft thick.
- **Intermediate Sand:** The intermediate sand layer, which has a thickness ranging from 3.5 to 6 ft, is located within the confining clay unit described above and consists of silt, silty sand, and poorly sorted sands. This layer is discontinuous across the Site and may represent a paleo channel deposit.
- **Deep Sand:** The deep sand unit is poorly graded fine to medium-grained, loose sand with a silty sand interval directly below the overlying clay stratum. This unit is about 35 ft thick and extends to a depth of roughly 60 or 65 ft below grade, where it rests unconformably on the more consolidated Tertiary age deposits.

2.1.2 Hydrogeology

Two distinct hydrostratigraphic zones have been identified at the Site; the shallow sand aquifer and the deep sand aquifer.

The shallow sand aquifer corresponds to the shallow sand unit described above. Hydrogeologic conditions within the shallow sand aquifer in and around the Site vary from being completely saturated and partially confined (south) to unsaturated (north). Groundwater flow within this unit is predominantly north and northeast toward the Arkansas River, although there is a minor westward component towards Bond Avenue that is likely related to a paleo stream channel. Groundwater level measurements indicate that groundwater is present at depths ranging from between 5 to 17 ft below grade. An average site-wide hydraulic gradient of 0.0064 was calculated for the shallow sand aquifer. Hydraulic conductivity estimates for the shallow sand, based on slug tests performed on monitoring wells, average 2 to 4 feet per day (ft/day). The calculated seepage velocity for the shallow sand aquifer was about 25 feet per year (ft/year). Based on the limited saturated thickness and hydraulic conductivity of this zone, it is not considered a viable source of groundwater for economic uses. A well search conducted by FTN did not document any current use of the shallow groundwater.

The deep sand aquifer corresponds to the deep sand layer and is confined in all areas of the Site. Groundwater flow in the deep sand aquifer is to the northeast towards the Arkansas River, which is the regional groundwater discharge point. Potentiometric surface levels within the deep sand aquifer rise to within about 14 to 18 ft of the ground surface. An average site-wide hydraulic gradient of 0.00067 was calculated for the deep sand aquifer. Hydraulic conductivity estimates for the deep sand, based on slug tests performed on monitoring wells, average 115 to 175 ft/day. The calculated seepage velocity for the deep sand aquifer was about 150 ft/year. The greater saturated thickness (35 ft) and hydraulic conductivity of this zone suggests that it could be used as a water source, although municipal water is available at the Site and all surrounding areas. A well search performed by FTN confirmed two nearby industrial supply wells (Little Rock Crate and Basket and the former Northwest Hardwoods) screened in the deep sand, but four other wells listed in online databases could not be located and are presumed to no longer be in operation.

Groundwater elevation monitoring has suggested that there is some hydraulic communication between the two groundwater zones. Vertical hydraulic gradients between the shallow and deep sand aquifer are strongly downward, with groundwater potentiometric surface elevation differences between the two units ranging from about 6 to 9 ft in the vicinity of the Site. The vertical gradient remains downward northeast (downgradient) of the Site; but the differences in potentiometric elevations between the two aquifers decreases as you move away from the Site (FTN, 2007b).

2.2 NATURE AND EXTENT OF CONTAMINATION

Investigation of environmental conditions has been ongoing at the Site for the last 10 years. Hundreds of samples of various environmental media (including soil, groundwater, surface water, sediment, and indoor air) have been collected and analyzed for potential site contaminants. The investigations have shown that some industrial solvents and their breakdown products are present in the environment as a result of manufacturing operations at the facility. Some of these compounds have migrated downgradient and extend off the former Timex property to the west, north, and east. Two suspected source areas were identified: a former plating room/effluent treatment plant area within the footprint of the former manufacturing

building, and a storm drain located near the northwest corner of the former building. The two source areas have slightly different chemical constituents. Contaminants associated with the storm sewer are predominately trichloroethene (TCE) and its associated breakdown products, whereas contamination related to the former plating room/effluent treatment plant area is predominately 1,1,1-trichloroethane (1,1,1-TCA) and its breakdown products.

The RADD identifies the chemicals of potential concern (COPCs) for soil at the Site as:

- 1,1,1-TCA
- 1,1-dichloroethane (1,1-DCA)
- TCE
- 1,1-dichloroethene (1,1-DCE)
- cis-1,2-dichloroethene (cis-1,2-DCE)

The following compounds were listed in the RADD as COPCs for site groundwater:

- 1,1,1-TCA
- 1,1,2-trichloroethane
- 1,1-DCA
- 1,2-dichloroethane
- Tetrachloroethene (PCE)
- TCE
- 1,1-DCE
- cis-1,2-DCE
- 1,4-dioxane
- Freon 113
- Vinyl chloride
- Manganese

Manganese was not specifically named as a chemical of concern in the *Site Investigation Report* (FTN, 2007b) because it was not released into the environment as a result of former manufacturing operations, but rather is a naturally-occurring compound that is mobilized by biodegradation of the chlorinated solvents that were a result of historical releases at the Site. However, ADEQ has required that manganese be included as a COPC for groundwater and that concentrations in groundwater be evaluated during the MNA portion of the remedy.

2.2.1 Soil Contamination

The COPCs for soil were identified largely due to the risk to degrade groundwater quality. The majority of samples containing elevated concentrations of COPCs were collected from within the capillary zone or saturated zone, indicating the observed contamination is associated with groundwater and not a soil release. Vadose zone impacts were identified beneath the west end of the storm drain that runs along the north side of the former building and at MW-10, which is located within the footprint of the building beneath the former plating room/effluent treatment plant.

2.2.2 Groundwater Contamination

The most pervasive COPC for groundwater is the industrial solvent TCE and its breakdown products, including 1,1-DCE. Concentrations as high as 32,000 micrograms per liter of TCE have been observed in groundwater beneath the Site.

Although no definitive source for the TCE contamination in groundwater was found, it is believed that the western end of the storm drain on the north side of the former building (near MW-18S/D) may have been the release point for the TCE contamination. The suspected source area was identified based on small areas of vadose soil contamination that were found, and on the pattern of groundwater contamination. Figures 3 and 4 show the estimated extent of volatile organic compound (VOC) contamination in the shallow and deep aquifers, respectively, and were developed based on a compilation of historical groundwater sampling results.

A small area of 1,1,1-TCA contamination exists in shallow groundwater in the vicinity of monitoring well MW-10S and is believed to be related to the former plating room/effluent treatment plant located in the south central portion of the former manufacturing building.

2.3 SELECTED REMEDIAL ALTERNATIVE

As mentioned above, Timex completed a comprehensive RAA that screened 24 different remedial technologies, of which 10 were determined to be potentially applicable to the Site. The ten applicable technologies were used to develop four remedial action alternatives, which were

then evaluated against nine performance criteria. Based on this evaluation, ADEQ selected the approved remedy for the Site that is described in the Final RADD.

The approved remedy includes the application of institutional controls that will limit site use to industrial activities and prevent the use of shallow and deep groundwater on-site and off-site within the area affected by the groundwater contamination.

Active soil remediation consisting of excavation and off-site disposal of unsaturated soils exceeding a Remedial Action Level (RAL) of 0.78 milligrams per kilogram of TCE will be performed to mitigate potential vapor intrusion risk to future industrial workers. It is estimated that approximately 2,800 cubic yards (cy) of soil will be removed and disposed off-site. The excavation will be backfilled with imported clean fill.

For the shallow groundwater aquifer on-site, ISCO will be implemented using an oxidant to treat TCE contamination in the shallow aquifer exceeding the RAL of 1.96 milligrams per liter (mg/L). The oxidant will react with and destroy the TCE, producing only inert byproducts. Groundwater monitoring will be performed during ISCO treatment to confirm the injections are effective and to determine when the RAL has been achieved. Following attainment of the RAL via active treatment, Timex may transition to MNA subject to ADEQ approval.

For the deep groundwater and shallow off-site groundwater, MNA will be implemented. The plume exhibits signs of natural degradation with the presence of daughter products such as DCE. For all groundwater remedies, attainment of the maximum contaminant levels is the ultimate cleanup goal. A Groundwater Monitoring Plan with details for well selection, parameters, and sampling frequency will be submitted to ADEQ under separate cover for review and approval.

2.4 ISCO PILOT TEST WORK PLAN

The Final RADD requires that a Work Plan be submitted to ADEQ for review and approval prior to initiating treatment. The Work Plan describes the tasks to be implemented to collect additional data needed to develop the full-scale design of the ISCO remedy for shallow on-site groundwater.

As mentioned above, the objective of the ISCO treatment is to attain the RAL of 1.96 mg/L TCE for the shallow groundwater system. Figure 3 shows the area where shallow groundwater currently exceeds that RAL. This will be achieved by injecting sodium permanganate into the shallow groundwater where TCE exceeds the RAL.

In addition, Timex intends to conduct a limited ISCO injection in the vicinity of monitoring well MW-10S where elevated concentrations of 1,1,1-TCA have been observed. This well is located near the former plating room/effluent treatment plant area. The intention of this limited injection is to reduce the amount of 1,1,1-TCA mass in the source area to facilitate natural attenuation for this compound. Sodium persulfate will be used to treat the 1,1,1-TCA as described in more detail in subsequent sections of this Work Plan.

The objective of the pilot test that is the subject of this Work Plan is to confirm two key ISCO design parameters for the two oxidants:

- 1) The optimum oxidant dosage needed to attain the treatment objectives.
- 2) The most efficient delivery mechanism for the oxidants.

These two parameters will be evaluated through the performance of a laboratory treatability test and a field injection test, respectively. These tests are described in subsequent sections of this Work Plan.

SECTION 3

IN SITU CHEMICAL OXIDATION TECHNOLOGY

3. IN SITU CHEMICAL OXIDATION TECHNOLOGY

As mentioned above, there are two primary objectives for the ISCO treatment program at this Site. First and foremost; sodium permanganate will be used to reduce TCE concentrations in shallow groundwater to below the RAL of 1.96 mg/L in accordance with the RADD. Second, Timex believes that it is prudent to perform some limited treatment of the 1,1,1-TCA in the shallow groundwater adjacent to MW-10S in order to reduce the contaminant mass and thereby facilitate natural attenuation for that compound.

3.1 TECHNOLOGY DESCRIPTION

In situ chemical oxidation involves injecting oxidants and other amendments as required directly into the source area at a contaminated site in order to reduce contaminant mass and allow natural attenuation to work more effectively. Common chemical oxidants that are typically used for ISCO include: ozone, hydrogen peroxide (or Fenton's Reagent), sodium persulfate, and sodium or potassium permanganate. The oxidant chemicals react with and break down the contaminants, producing innocuous substances such as carbon dioxide, water, and inorganic chloride. The oxidants vary in strength and as a result can break down different contaminants. In general, the stronger an oxidant, the less persistent (stable) it is in the subsurface after injection. Thus, the weakest oxidant that will break down the COPCs for a particular site is preferred because it will last the longest and therefore provide the most treatment before it degrades.

There are several options for oxidant delivery, including injection into existing monitoring wells, pressurized injection into well points, direct injection using drilling rods, recirculation of oxidant with extraction/reinjection wells, and variations on these themes. Each method has its own advantages/disadvantages and performs best at different sites.

3.2 CHEMICAL OXIDANT SELECTION

Two oxidants are proposed for use at this Site:

- Sodium permanganate
- Sodium persulfate

Sodium permanganate has the greatest persistence of all of the common oxidants, often persisting in the subsurface for 1 to 2 years after injection. This is a great advantage because it allows the oxidant more time to react with the contaminants, which provides more complete treatment of contaminants with less chance for rebound. Sodium permanganate is preferred over potassium permanganate because it is more than 10 times more soluble in water, which enables a stronger solution to be used. Sodium permanganate is very effective at treating chlorinated ethenes such as PCE, TCE, and their breakdown products. However, sodium permanganate is not strong enough to break down the chlorinated ethane compounds such as 1,1,1-TCA and 1,1-DCA. Sodium permanganate will be used to treat groundwater containing TCE and its associated breakdown products that are located in the vicinity of the former storm drain and related downgradient areas.

Sodium persulfate will be used to reduce the amount of residual 1,1,1-TCA mass in the vicinity of the former plating room/effluent treatment plant area (near MW-10S). Reducing the 1,1,1-TCA mass in this area will facilitate natural attenuation for this compound. Persulfate is a stronger oxidant than permanganate and is capable of destroying the chlorinated ethanes. It is somewhat less persistent however, typically lasting less than 6 months in the subsurface. Given the objective of mass reduction, the lower concentrations of 1,1,1-TCA in groundwater and the substantially smaller area impacted, the shorter persistence of persulfate is not a significant concern at this Site.

Although both sodium persulfate and sodium permanganate have been used extensively to treat chlorinated solvents in groundwater across the country, there are several site-specific factors that must be evaluated in order to design full-scale implementation of the technology. Specifically, the optimum dosage for each oxidant must be confirmed and the most efficient injection technology must be determined.

Sodium permanganate is a standard industrial chemical that can be obtained from a number of reputable suppliers. For this project, it is anticipated that the sodium permanganate will be purchased from Carus Chemical Corporation, or another local supplier. The Material Safety Data Sheet for sodium permanganate is included in Appendix A.

Persulfate comes in several forms that are sold under various trade names. For this project, we propose to use PersulfOx, which is a self-activating form of persulfate marketed by Regenesis of San Clemente, California. Information regarding PersulfOx is also included in Appendix A.

3.3 PILOT TEST OBJECTIVES

Two types of pilot testing will be conducted. Laboratory treatability testing will be performed on the two oxidants (sodium persulfate and sodium permanganate) to determine the appropriate site-specific dosage of each that is needed to attain the cleanup objectives. In addition, field pilot tests will be conducted on several injection technologies to determine which method is more efficient for delivering the oxidant. Details of the two types of pilot testing are discussed in the next two sections.

SECTION 4

LABORATORY TREATABILITY TESTING

4. LABORATORY TREATABILITY TESTING

Laboratory treatability testing will be performed on the two oxidants (sodium persulfate and sodium permanganate) to determine the appropriate site-specific dosage of each that is needed to attain the cleanup objective. This will be accomplished by collecting samples of soil and groundwater from the two source areas, combining the soil and water in several reactor jars to simulate source area conditions, and treating the reactor jars with varying amounts of the two oxidants to assess what dosage of each is needed to overcome the natural oxidant demand of the soil and treat the contaminants. Samples from the storm drain source area would be used for the sodium permanganate tests and samples from the former plating room/effluent treatment plant area would be used to assess the sodium persulfate dosage.

4.1 SAMPLE COLLECTION METHODS

4.1.1 Soil Samples

Soil samples must be collected from each of the two source areas to facilitate the laboratory oxidation tests. Several soil borings will be advanced within each source area using a truck-mounted direct-push drilling rig operated by an Arkansas-licensed water well contractor. Borings for the storm drain (TCE) source area will be drilled in the vicinity of existing monitoring well MW-18S. Borings for the former plating room/effluent treatment plant (1,1,1-TCA) source area will be drilled in the vicinity of MW-10S. See Figure 2 for the location of referenced monitoring wells. Soil samples will be collected from the shallow sand aquifer at a depth of about 10 to 20 ft below grade using a macro-core sampler or equivalent. The actual number of soil borings will be dependent upon field sample recovery. An initial boring will be advanced and additional borings will be added until the volume of soil needed for the treatability testing (4 liters) has been obtained from each source area.

The soil samples will be screened using a photo-ionization detector (PID) calibrated to a benzene-equivalent standard. Based on the results of the PID field screening, two composite samples (one from each source area) will be prepared for oxidation testing. Several individual macro-core samples will be combined to create each of the composite samples to get sufficient sample volume. Samples containing the highest PID screening results will be selected for

compositing. Thorough mixing of the composite samples will be performed in the laboratory. No preservative will be added to any of the soil samples collected for oxidation testing because it could interfere with the oxidant testing. The samples will be placed in an ice-filled cooler and chilled to 4 degrees Celsius to minimize volatilization.

4.1.2 Groundwater Samples

Groundwater samples will be collected from existing monitoring wells MW-18S (representative of the TCE source area) and MW-10S (representative of the 1,1,1-TCA source area). The two wells will be sampled in accordance with the approved *Field Sampling Plan* (FTN, 2004). Samples will be collected for VOC analysis via SW-846 Method 8260B and for the oxidation treatability testing. The oxidation samples will be collected in unpreserved 1-liter amber glass jars. A total of 4 liters of groundwater will be collected from each well for oxidation testing. In addition to the laboratory testing, field measurements will be made for oxidation/reduction potential (ORP), pH, dissolved oxygen (DO), and conductivity during sample collection.

4.2 LABORATORY OXIDATION TESTING – PERMANGANATE

4.2.1 Materials and Solution Preparation

The oxidation treatability test reactors will consist of 500-milliliter (mL) glass jars with air-tight lids. Prior to the arrival of the soil samples at the testing laboratory, a solution of 40 percent (%) sodium permanganate will be made using laboratory grade sodium permanganate. Exactly 400 grams of laboratory grade sodium permanganate will be added to a 1-liter volumetric flask, and the flask will be filled to the 1-liter line with deionized (DI) water. The solution will be capped and shaken, and not used until all solids have dissolved.

4.2.2 Testing Procedure

Laboratory oxidation testing will be performed on the two 4-liter composite soil samples collected from the soil boring program. The composite sample from the TCE source area will be delivered to the testing laboratory in four 1-liter bottles. The four bottles of soil will be opened, and the contents will be combined and thoroughly mixed. Before beginning the oxidation testing

procedure, one sample will be collected from the TCE source area composite sample for analysis of the parameters listed in the following table:

Analysis	Sample Volume	Sample Containers	Preservative	Method Number	Sample Quantities
VOC	80 mL	2 – 40-mL glass vials	Methanol	SW-846 Method 8260B	1
TOC	120 mL	1 – 4-oz bottle	Cool to 4+/- 2° C	SW846 9060	1

Notes:

TOC = total organic carbon

oz = ounce

° C = degree Celsius

The remaining volume of the composite sample will be used for the oxidation testing. For the composite sample, 500 grams of the composited soil (approximately 300-mL volume) will be placed in each of seven 500-mL glass jars with air-tight lids. Then 90 mL of groundwater will be added (based on 30% porosity of the 300 mL of soil volume) to simulate saturated aquifer conditions. These jars will be labeled as oxidation test reactors “A” through “G”. The following volumes of permanganate solution and DI water will be added to the seven 500-mL glass test jars:

	NaMnO ₄ Dosage	Equivalent Field Application Rate (Assumes Soil Density of 1.4 Tons per Cubic Yard)	40% NaMnO ₄ Solution Added to 500 grams of Soil	Approximate Volume of DI Water Added to 500-mL Jar
A	Untreated	Control	0 mL	110 mL
B	1 gram NaMnO ₄ per 500 grams of soil	5.7-lb NaMnO ₄ per cy soil	2.5 mL	107.5 mL
C	1.5 grams NaMnO ₄ per 500 grams of soil	8.5-lb NaMnO ₄ per cy soil	3.75 mL	106.25 mL
D	2 grams NaMnO ₄ per 500 grams of soil	11.4 lb NaMnO ₄ per cy soil	5.0 mL	105.0 mL
E	2.5 grams NaMnO ₄ per 500 grams of soil	14.2 lb NaMnO ₄ per cy soil	6.25 mL	103.75 mL

	NaMnO₄ Dosage	Equivalent Field Application Rate (Assumes Soil Density of 1.4 Tons per Cubic Yard)	40% NaMnO₄ Solution Added to 500 grams of Soil	Approximate Volume of DI Water Added to 500-mL Jar
F	3 grams NaMnO ₄ per 500 grams of soil	17 lb NaMnO ₄ per cy soil	7.5 mL	102.5 mL
G	A duplicate of one of the above	A duplicate of one of the above	A duplicate of one of the above	A duplicate of one of the above

Notes:

lb = pound

NaMnO₄ = sodium permanganate

The combined volume of the soil, permanganate solution, and DI water will be approximately 500 mL. If this does not fill the jars, then additional DI water will be added to eliminate the head space, and the additional volume will be recorded. If the specified volume of DI water is greater than the capacity of the testing jar, then only sufficient water will be added to eliminate the head space, and the actual volume of DI water added to the jar will be recorded.

Once the soil, permanganate solution, and DI water has been added to each testing jar, the lid will be sealed and the jar will be shaken to thoroughly mix all components. The testing jars will then be left for 1 week to allow the oxidation reaction to proceed. The jars will be shaken approximately once per day during the week. Digital photographs will be taken of the jars once each day during the test to document changes in color as the reaction proceeds.

4.3 LABORATORY OXIDATION TESTING – PERSULFATE

The treatability testing procedures used for the persulfate will be similar to those used for permanganate, except that the test dosages and mixing requirements will be slightly different.

4.3.1 Materials and Solution Preparation

The oxidation treatability test reactors will consist of 500-mL glass jars with air-tight lids. Prior to the arrival of the soil samples at the testing laboratory, a solution of 15% PersulfOx will be made using PersulfOx powder provided by Regensis. Exactly 178 grams of PersulfOx will be

added to a 1-liter volumetric flask, and the flask will be filled to the 1-liter line with DI water. The solution will be capped and shaken, and not used until all solids have dissolved.

4.3.2 Testing Procedure

Laboratory oxidation testing will be performed on the 4-liter composite soil sample collected from the 1,1,1-TCA source area during the soil boring program. The composite sample will be delivered to the testing laboratory in four 1-liter bottles. The four bottles of soil will be opened, and the contents will be combined and thoroughly mixed. Before beginning the oxidation testing procedure, one sample will be collected for analysis of the parameters listed in the following table:

Analysis	Sample Volume	Sample Containers	Preservative	Method Number	Sample Quantities
VOC	80 mL	2 – 40-mL glass vials	Methanol	SW-846 Method 8260B	1
TOC	120 mL	1 – 4-oz bottle	Cool to 4+/- 2° C	SW846 9060	1

Notes:

oz = ounce

TOC = total organic carbon

The remaining volume of the composite sample will be used for the oxidation testing. For the composite sample, 500 grams of the composited soil (approximately 300-mL volume) will be placed in each of seven 500-mL glass jars with air-tight lids. Then 90 mL of groundwater will be added (based on 30% porosity of the 300 mL of soil volume) to simulate saturated aquifer conditions. These jars will be labeled as oxidation test reactors “H” through “N”.

The following volumes of PersulfOx solution and DI water will be added to the seven 500-mL glass test jars:

	PersulfOx Dosage	Equivalent Field Application Rate (Assumes Soil Density of 1.4 Tons per Cubic Yard)	15% PersulfOx Solution Added to 500 grams of Soil	Approximate Volume of DI Water Added to 500-mL Jar
H	Untreated	Control	0 mL	110 mL
I	0.5 grams PersulfOx per 500 grams of soil	3-lb PersulfOx per cy soil	2.8 mL	107.2 mL
J	1.0 grams PersulfOx per 500 grams of soil	6-lb PersulfOx per cy soil	5.6 mL	104.4 mL
K	1.5 grams PersulfOx per 500 grams of soil	9-lb PersulfOx per cy soil	8.4 mL	101.6 mL
L	2 grams PersulfOx per 500 grams of soil	12-lb NaMnO ₄ per cy soil	11.2 mL	98.8 mL
M	2.5 grams PersulfOx per 500 grams of soil	15-lb NaMnO ₄ per cy soil	14.0 mL	96.0 mL
N	A duplicate of one of the above	A duplicate of one of the above	A duplicate of one of the above	A duplicate of one of the above

Notes:

lb = pound

NaMnO₄ = sodium permanganate

The combined volume of the soil, PersulfOx solution, and DI water will be approximately 500 mL. If this does not fill the jars, then additional DI water will be added to eliminate the head space, and the additional volume will be recorded. If the specified volume of DI water is greater than the capacity of the testing jar, then only sufficient water will be added to eliminate the head space, and the actual volume of DI water added to the jar will be recorded.

Once the soil, PersulfOx solution, and DI water has been added to each testing jar, the lid will be sealed and the jar will be shaken to thoroughly mix all components. The testing jars will then be

left for 1 week to allow the oxidation reaction to proceed. The jars will be shaken approximately once per day during the week.

4.4 SAMPLE COLLECTION

After 1 week, all reactors will be opened and a water and soil sample will be collected from each of the testing jars. The following tables list the water and soil samples, the analytical methods, and the sample quantities.

Water Samples

Analysis	Sample Volume	Sample Containers	Preservative	Method Number	Sample Quantities
VOC	80 mL	2 – 40-mL glass vials	HCL to pH < 2; Cool to 4+/- 2 ° C	SW-846 Method 8260B	14
ORP, pH, DO, Conductivity	Remaining volume of water	Direct reading in reactor jar after other samples have been collected	None	Instrument Reading	14

Notes:

HCL = hydrochloric acid

Soil Samples

Analysis	Sample Volume	Sample Containers	Preservative	Method Number	Sample Quantities
VOC	80 mL	2 – 40-mL VOA vials	Cool to 4+/- 2 ° C	SW-846 Method 8260B	14
TOC	120 mL	1 – 4-oz bottle	Cool to 4+/- 2 ° C	SW846 9060	14

Notes:

TOC = total organic carbon

4.5 DATA ANALYSIS

The analytical results of the treatability testing will be used to select the permanganate dosage needed to achieve the RAL of 1.96 mg/L of TCE. The lowest dosage that achieves that cleanup criterion will represent the amount of permanganate needed to fully treat the groundwater. However, because the soil and groundwater samples used in the treatability test were collected

from the source areas, they represent worst-case site conditions. As a result, it is likely that a lower dose than that indicated by the treatability testing will be sufficient to meet the RAL in areas downgradient from the source areas. For this reason, full-scale implementation of ISCO will be performed in multiple injections. Typically, 50% of the calculated permanganate dosage is applied in the initial injection. Groundwater is then monitored for permanganate persistence and once it has fully reacted, VOC samples are collected for comparison to the cleanup goals. If concentrations exceed the cleanup goals, additional permanganate injections are performed until the cleanup goals are attained. These additional injections are typically 25% of the calculated dosage, so that after three injections, the full dosage will have been applied. Experience has shown that each subsequent injection is generally much smaller in area than the previous injection, until only the source area remains.

The persulfate dosage will be selected based on the analytical results from the five treatability test reactors. The dosage that provides approximately 80% or greater mass reduction will be considered for full-scale application. Because only the 1,1,1-TCA source area will be treated, it is anticipated that the full dose will be applied in a single injection, and that additional injections would not be required. However, post-injection monitoring results will be evaluated to determine whether a second injection might be of further benefit.

The full results of the laboratory treatability testing will be included in the Remedial Action Work Plan for the full-scale ISCO implementation as justification for the proposed dosages. The write up will include a description of the testing procedures employed as well as any deviations from this plan. Data summary tables will be prepared as appropriate to present the collected data.

SECTION 5

FIELD INJECTION PILOT TEST

5. FIELD INJECTION PILOT TEST

The purpose of the field injection pilot testing is to evaluate the suitability of various methods of oxidant injection into the subsurface at the Site and to estimate the horizontal spacing of the injection wells for the full-scale design.

It is anticipated that full-scale application of the oxidant solution would be done using direct-push methods to complete the work expeditiously. Direct-push methods have been used successfully in the shallow aquifer at the Site during previous investigations. However, at some sites, it can be difficult to get a tight seal around the direct push drilling rods and injected oxidant can flow back along the drilling rods and return to the surface (this is sometimes referred to as “daylighting”). In those cases, injection wells must be installed by more traditional rotary drilling methods, with construction similar to typical monitoring wells. The injection tests are designed to assess the effectiveness of the direct-push method for applying oxidant solution to the full saturated thickness of the shallow aquifer.

Three injection methods will be evaluated during this pilot test: 1) direct injection into the aquifer using the direct-push drilling rods, 2) injection into small-diameter injection wells installed via direct-push drilling methods, and 3) injection into injection wells installed using rotary drilling methods.

The testing will be conducted in the northeast corner of the former Timex site, near existing monitoring wells MW-23 and MW-24. This location was selected because the stratigraphy is similar to that observed in the two source areas, it is an area where contaminant concentrations are low, and there is good existing monitoring well coverage. The latter reason being the most critical as the existing monitoring well network will be used to measure water level changes resulting from the potable water injection. The small-diameter well points will be installed at each of the locations before beginning any injection tests. This will allow the use of the well points as additional water level monitoring points for all tests. Monitoring wells MW-23 and MW-24 are shown on Figure 3.

Although the injection pilot test will involve injecting only a very small amount (less than 500 gallons) of potable water over a 2- to 3-day period, the wells are still considered Class V

injection wells and authorization is required under the Underground Injection Control (UIC) Permit by Rule. An application for authorization under the UIC program will be submitted to ADEQ prior to performing the pilot injections of potable water.

5.1 INJECTION TESTING OF SMALL-DIAMETER WELL POINTS

A total of three small-diameter (1-inch) polyvinyl chloride (PVC) wells will be installed using direct-push methods. Two of the well points will be installed approximately 5 and 15 ft west of existing monitoring well MW-24, and one will be installed approximately 5 ft east of monitoring well MW-23. Figure 5 shows the locations of the proposed small-diameter injection points (IP-1 through IP-3).

The 1.5-inch-diameter direct-push casing will be pushed to the bottom of the shallow sand aquifer based on boring logs from MW-23 and MW-24 (approximately 17 ft below grade). A disposable tip will be used to keep the casing free of soil as the probe is advanced. Each well point will consist of 10 ft of 1-inch-diameter, 20-slot PVC screen and an appropriate length of 1-inch-diameter riser pipe. The well points will be installed by inserting the 1-inch-diameter PVC well casing into the direct-push casing and retracting the casing. No sand pack will be installed. The natural aquifer material collapsing against the PVC well casing will form a natural sand pack. A 1 to 3-ft-thick layer of bentonite pellets will be placed in the borehole annulus at the surface after the direct-push casing is removed, if possible. This will help to reduce the potential for daylighting of the injection water.

Once installed, potable water will be pumped into each of the well points and the rate at which the water is pumped into the well points will be monitored and recorded. A totalizing flow meter will be used to monitor the injection rate. Potable water will be obtained from a fire hydrant located adjacent to the former Timex property with approval from Central Arkansas Water. Water from that hydrant was recently tested by Central Arkansas Water and no site-related compounds were detected. Written approval from Central Arkansas Water to use the hydrant and the recent analytical results are provided in Appendix B. Water from the hydrant will be transported to the work area using a storage tank provided by the drilling contractor. An electric pump powered by a generator will be used to pump the water from the storage tank into the well points. The discharge line will be equipped with a gate valve and the above-mentioned flow

meter to regulate and monitor the flow rate. Only potable water will be used for the injection testing. The injection rate will be increased until the water level in the well point can be maintained near the top of the well casing. During injection, water levels will be monitored in the other well points at that location and nearby monitoring wells (with 50 ft of the injection point) at approximately 2-minute intervals. The injection will continue for at least 15 minutes. The duration of injection may be varied in the field based on observed responses in nearby monitoring points.

Once the ambient pressure tests have been completed, the discharge line will be attached to the top of the well points via threaded PVC connections. An in-line pressure gauge will also be installed to monitor system backpressure. The pump will then be used to force water into the well point under low pressure (approximately 10 to 20 pounds per square inch). The flow rate, pressure, and water levels in adjacent monitoring wells and well points will be monitored and recorded in a manner similar to that described for the ambient pressure tests. Pressure injection will be continued for at least 15 minutes. The duration of injection may be varied in the field based on observed responses in nearby monitoring points.

5.2 INJECTION TESTING USING DIRECT PUSH BORINGS

Injection tests will be performed using only the direct-push drilling rods to determine if this is a viable injection alternative for the Site. Four test injections will be performed within 5 to 10 ft of the newly-installed small-diameter injection points described above, and monitoring wells MW-23 and MW-24. Those wells will be used as monitoring points to assess the area of influence for the injections. Figure 5 shows the locations of the proposed direct-push injection points (DP-1 through DP-4).

For this test, 1.5-inch-diameter direct-push drilling rods will be advanced to refusal using a disposal tip in the same manner as that described for the well point injection tests. Once the bottom of the shallow aquifer has been reached (approximately 17 ft below grade), a threaded fitting will be attached to the top of the casing such that the water injection system (pump, flow meter, pressure gauge, gate valve, etc.) can be connected. Potable water will then be injected into the casing under pressure as the casing is withdrawn from the ground. The withdrawal rate of the casing will be varied such that an optimum rate can be determined. Monitoring of injection flow

rates and pressures as well as water levels in adjacent monitoring wells and well points will be conducted as described for the well point injection tests. It is anticipated that several tests of this design will be performed to fully assess the applicability of this technique and to determine the optimum flow rate and injection pressure.

5.3 INJECTION TESTING OF EXISTING MONITORING WELLS

Lastly, injection tests will be performed on two existing groundwater monitoring wells at the Site. Wells MW-23 and MW-24 will be used for these tests (see Figure 5). The tests will be conducted by pumping potable water into the monitoring wells using the storage tank and pump system described above. The rate at which the water is pumped into the monitoring well will be measured and recorded. The injection rate will be increased until the water level in the well can be maintained near the top of the well casing. During injection, water levels will be monitored in the multi-level well points installed at that location and nearby monitoring/injection wells (with 50 ft of the injection point) at approximately 2-minute intervals. The injection will continue for at least 15 minutes. The duration of injection may be varied in the field based on observed responses in nearby monitoring points.

Once the ambient pressure testing has been completed, the discharge line will be attached to the top of the monitoring wells via a threaded PVC connection. An in-line pressure gauge will also be installed to monitor system backpressure. The pump will then be used to force water into the monitoring wells under pressure. The flow rate, pressure, and water levels in adjacent monitoring wells and well points will be monitored and recorded in a manner similar to that described for the ambient pressure tests. Pressure injection will be continued for at least 15 minutes at each monitoring well. The duration of injection may be varied in the field based on observed responses in nearby monitoring points.

5.4 DATA ANALYSIS AND REPORTING

Upon completion of the injection testing, the water level, flow rate, and pressure data will be tabulated and evaluated to assess the effectiveness of the various forms of oxidant injection. The information will be used to determine the method and spacing to be used in full-scale application of this technology. The radius of influence for each of the three injection methods will be

estimated. The results of the injection testing will be included in the Remedial Action Work Plan for the full-scale ISCO implementation as justification for the proposed injection method and injection point spacing. The write up will include a description of the field procedures employed as well as any deviations from this plan. A site plan will be included that shows the locations of all injection points. Data summary tables will be prepared as appropriate to present the collected data.

SECTION 6

SCHEDULE

6. SCHEDULE

The pilot test will be initiated within 60 days of Work Plan approval by ADEQ. The anticipated duration for each task once the pilot test has been initiated is provided below:

- | | |
|--|---------|
| ▪ Soil borings and groundwater sampling: | 1 week |
| ▪ Analysis of groundwater samples: | 2 weeks |
| ▪ Conduct oxidant treatability tests: | 2 weeks |
| ▪ Analysis of oxidation testing samples: | 2 weeks |
| ▪ Injection testing: | 1 week |
| ▪ Data analysis: | 2 weeks |

The pilot test results will be incorporated into the Remedial Action Work Plan for the full-scale ISCO remediation program. A graphic schedule is included as Figure 6. In total, the treatment technology pilot test will be completed within 4 months of ADEQ approval of this Work Plan.

SECTION 7

REFERENCES

7. REFERENCES

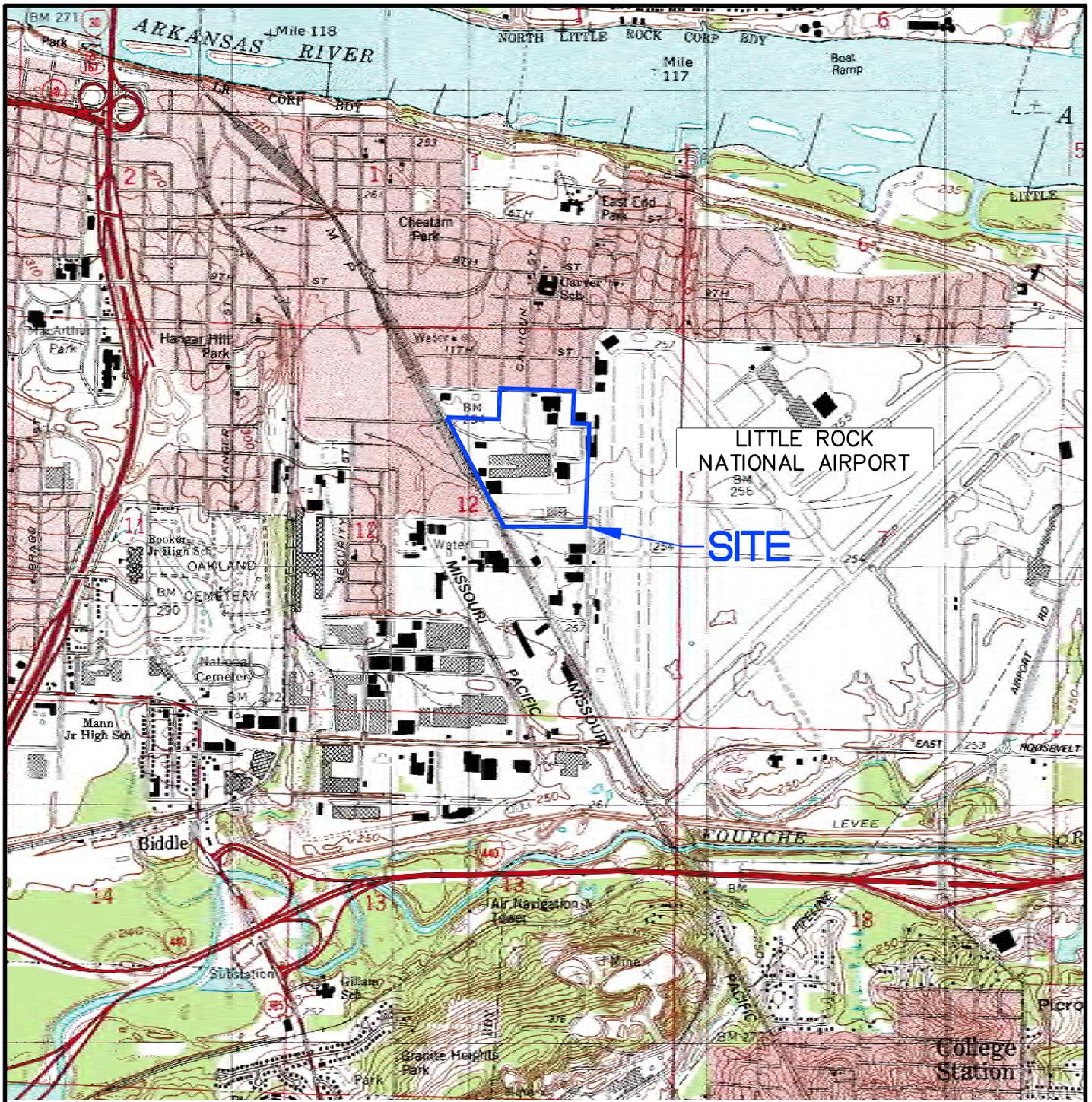
FTN (FTN Associates, Ltd). 2004. *Field Sampling Plan, Former Timex Facility, Little Rock Arkansas*, June.

FTN. 2007a. *Additional Investigation Summary Memorandum, Former Timex Facility, Little Rock Arkansas*, 6 March.

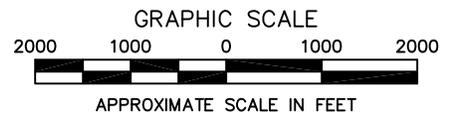
FTN. 2007b. *Site Investigation Report, Former Timex Facility, Little Rock Arkansas*, 23 August.

Weston Solutions, Inc. 2011. *Remedial Alternatives Analysis, Former Timex Facility, Little Rock, Arkansas*, August.

FIGURES



SOURCE:
 USGS SWEET HOME QUADRANGLE AND LITTLE ROCK
 QUADRANGLE, ARKANSAS, 7.5 MINUTE SERIES
 TYPOGRAPHIC, 1986.



SITE LOCATION MAP



CONCORD

NEW HAMPSHIRE

FORMER TIMEX FACILITY
 LITTLE ROCK NATIONAL AIRPORT
 LITTLE ROCK, ARKANSAS

DRAWN TAC
 CHECKED

DATE SEPT 2014
 DATE

DES. ENG.
 SCALE AS SHOWN

DATE
 REVISION

W.O. NO. 13568.004.001
 FIGURE NO. 1



LEGEND

- MW-09 ◊ MONITORING WELL
- PROPERTY FORMERLY LEASED BY TIMEX
- SITE BOUNDARY

GRAPHIC SCALE

300 150 0 150 300

APPROXIMATE SCALE IN FEET

SOURCE:
 PLAN DERIVED FROM PLAN ENTITLED "FORMER TIMEX FACILITY, LITTLE ROCK NATIONAL AIRPORT, LITTLE ROCK, ARKANSAS, BASE MAP", BY FTN ASSOC. LTD., SCALE: 1"=100', DATED: 08/25/2008. PLAN UPDATED BASED ON AERIAL IMAGERY FROM GOOGLE EARTH, DATED 2/20/2012.



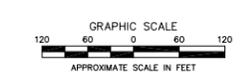
CONCORD NEW HAMPSHIRE

**FORMER TIMEX FACILITY
 LITTLE ROCK NATIONAL AIRPORT
 LITTLE ROCK, ARKANSAS**

SITE PLAN

DRAWN TAC	DATE SEPT 2014	DES. ENG.	DATE	W.O. NO. 13568.004.001
CHECKED	DATE	SCALE AS SHOWN	REVISION	FIGURE NO. 2

M:\Design\DWG\TIMEX ARKANSAS\2014\Planning Documents\FIG 3.dwg, Layout1, 9/24/2014 9:38:29 AM, chaset, 1:2



LEGEND

- MW-09 MONITORING WELL
- ESTIMATED EXTENT OF SHALLOW GROUNDWATER EXCEEDING 1,000 ug/L 1,1,1-TCA
- ESTIMATED EXTENT OF SHALLOW GROUNDWATER EXCEEDING 200 ug/L 1,1,1-TCA
- ESTIMATED EXTENT OF SHALLOW GROUNDWATER EXCEEDING THE RAL OF 1.96 mg/L TCE

SOURCE
 PLAN DERIVED FROM PLAN ENTITLED "FORMER TIMEX FACILITY, LITTLE ROCK NATIONAL AIRPORT, LITTLE ROCK, ARKANSAS, BASE MAP", BY FTN ASSOC. LTD., SCALE: 1"=100', DATED: 08/25/2008.

NO.	DATE	APPR.	REVISION

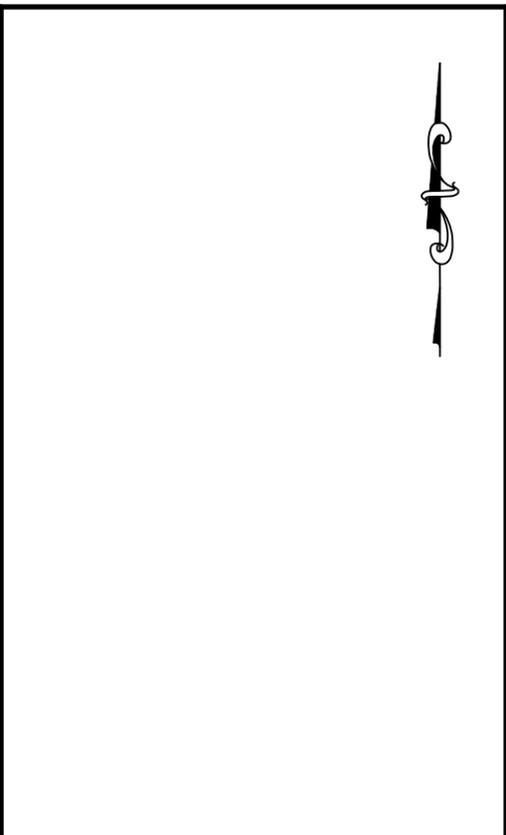
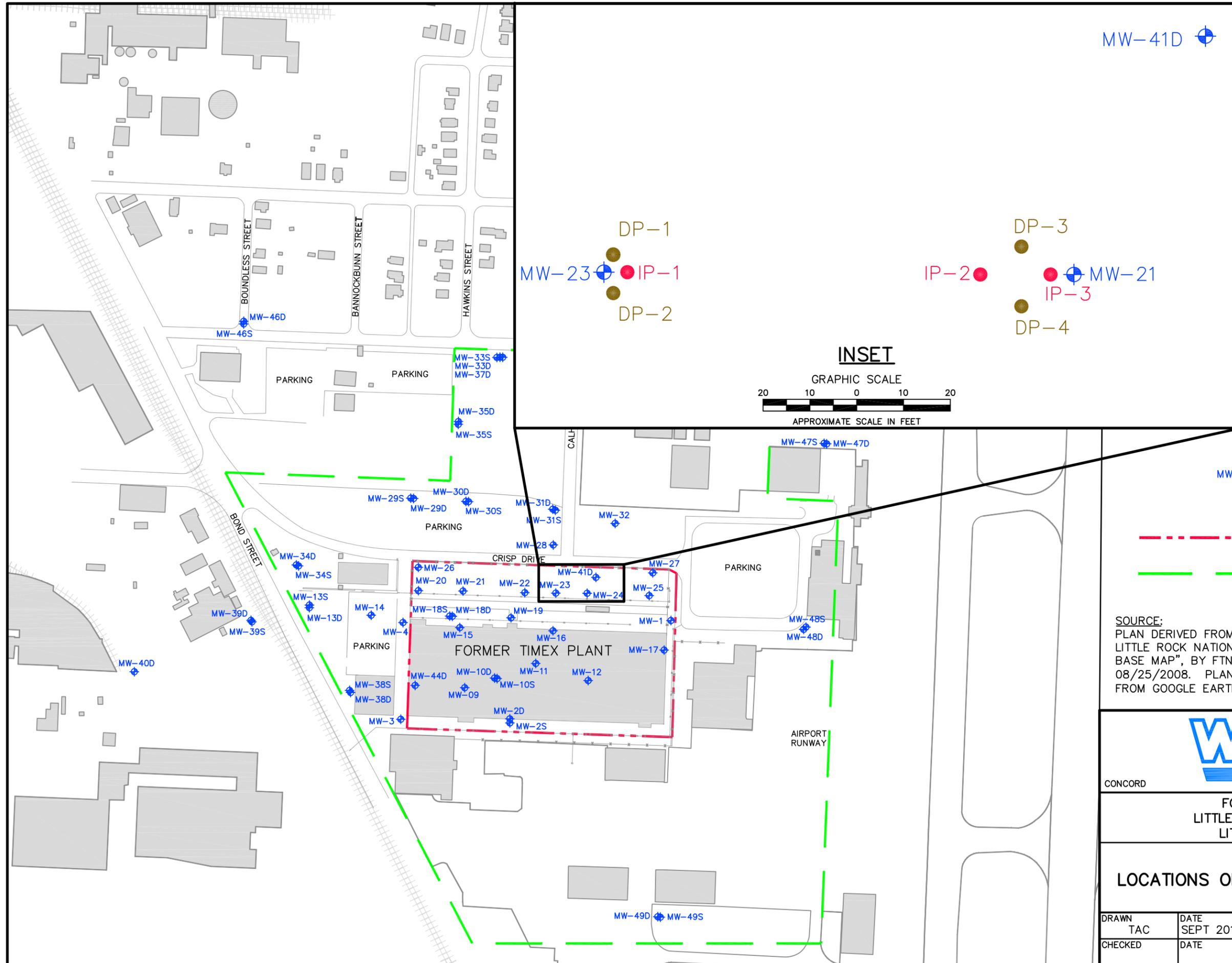
CHECKED	DATE	CLIENT APPROVALS	DATE
DES. ENG.			
PROJ. ENG.			
PROJ. MGR.			
APPROVED			
APPROVED		ISSUED FOR	DATE



FORMER TIMEX FACILITY
 LITTLE ROCK NATIONAL AIRPORT
 LITTLE ROCK, ARKANSAS

**DISTRIBUTION OF TCE AND 1,1,1-TCA
 IN SHALLOW SAND AQUIFER**

DRAWN	TAC	DATE	SEPT 2014	FIGURE NO.	3	REV. NO.	
SCALE	AS SHOWN	W.G. NO.	13568.004.001	SHT.		OF	



- LEGEND**
- MW-09 MONITORING WELL
 - DP-1 DIRECT PUSH INJECTION LOCATION
 - IP-1 SMALL-DIAMETER INJECTION POINT
 - PROPERTY FORMERLY LEASED BY TIMEX
 - SITE BOUNDARY

SOURCE:
 PLAN DERIVED FROM PLAN ENTITLED "FORMER TIMEX FACILITY, LITTLE ROCK NATIONAL AIRPORT, LITTLE ROCK, ARKANSAS, BASE MAP", BY FTN ASSOC. LTD., SCALE: 1"=100', DATED: 08/25/2008. PLAN UPDATED BASED ON AERIAL IMAGERY FROM GOOGLE EARTH, DATED 2/20/2012.



CONCORD NEW HAMPSHIRE
 FORMER TIMEX FACILITY
 LITTLE ROCK NATIONAL AIRPORT
 LITTLE ROCK, ARKANSAS

LOCATIONS OF INJECTION TESTING POINTS

DRAWN TAC	DATE SEPT 2014	DES. ENG.	DATE	W.O. NO. 13568.004.001
CHECKED	DATE	SCALE AS SHOWN	REVISION	FIGURE NO. 5

Figure 6

**Treatment Technology Pilot Study Implementation Schedule
Former Timex Facility, Little Rock, Arkansas**

Task	Weeks																	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
ADEQ Approval of Work Plan and UIC Application	■																	
Procurement of Subcontractors, Planning, Scheduling, Utility Clearance	■	■	■	■	■	■	■	■	■									
Soil Boring Drilling, Soil Sample Collection									■	■								
Groundwater Sample Collection									■	■								
Analysis of Initial Soil and Groundwater Samples										■	■	■						
Conduct Oxidant Treatability Test										■	■	■						
Analysis of Oxidation Testing Samples												■	■	■				
Injection Testing										■	■							
Data Analysis															■	■	■	

APPENDIX A

OXIDANT INFORMATION

	<h1>LIQUOX[®] sodium permanganate</h1> <p>EC- SAFETY DATA SHEET according to Regulation (EC) № 1907/2006 of the European Parliament and of the Council, of 18 December 2006 concerning REACH</p> <p style="text-align: right;">Material Safety Data Sheet Page 1 of 9</p>
---	---

Section 1 Chemical Product and Company Identification

PRODUCT NAME: LIQUOX [®] sodium permanganate, NaMnO ₄ TRADE NAME: LIQUOX [®] sodium permanganate SYNONYMS: Permanganic acid sodium salt Sodium permanganate		Revision Date: April 2008
USES OF SUBSTANCE: LIQUOX [®] sodium permanganate is a liquid oxidant recommended for applications that require a concentrated permanganate solution.		
COMPANY NAME (Europe): CARUS NALON S.L.	COMPANY ADDRESS: Barrio Nalon, s/n 33100 Trubia-Oviedo Espana, Spain INFORMATION: (34) 985-785-513 EMERGENCY TELEPHONE: (34) 985-785-513	
COMPANY NAME (US): CARUS CCORPORATION	COMPANY ADDRESS: 315 Fifth Street Peru, IL 61354, USA INFORMATION: (815) 223-1500 (815) 224-6816 (FAX) www.caruscorporation.com (Web) salesmkt@caruscorporation.com (Email) EMERGENCY TELEPHONE: (800) 435 -6856 (USA) (815) 223-1500 (Other countries) (800) 424-9300(CHEMTREC®, USA) (703) 527-3887 (CHEMTREC®, Other countries)	

Section 2 Hazards Identification

<ol style="list-style-type: none"> 1. <u>EYE CONTACT</u> Sodium Permanganate is damaging to eye tissue on contact. It may cause burns that result in damage to the eye. 2. <u>SKIN CONTACT</u> Momentary contact of solution at room temperature may be irritating to the skin, leaving brown stains. Prolonged contact is damaging to the skin. 3. <u>INHALATION</u> Acute inhalation toxicity data are not available. However, airborne concentrations of sodium permanganate in the form of mist may cause irritation to the respiratory tract. 4. <u>INGESTION</u> Sodium permanganate solution, if swallowed, may cause burns to mucous membranes of the mouth, throat, esophagus, and stomach.
--



LIQUOX[®] sodium permanganate

EC- SAFETY DATA SHEET according to Regulation (EC) № 1907/2006 of the European Parliament and of the Council, of 18 December 2006 concerning REACH

Material Safety Data Sheet
Page 2 of 9

Section 3 Hazardous Ingredients

<u>MATERIAL OR COMPONENT</u>	<u>CAS NO.</u>	<u>EINECS</u>	<u>%</u>	<u>HAZARD DATA</u>
Sodium Permanganate air	10101-50-5	233-251-1	20-40	PEL/C 5 mg Mn per cubic meter of air TLV-TWA 0.2 mg Mn per cubic meter of air
<u>HAZARD SYMBOLS:</u>				
<u>RISK PHRASES:</u>				
8	Contact with combustibles may cause fire.			
22	Harmful if swallowed.			
50/53	Very toxic to aquatic organisms, may cause long-term effects in the aquatic environment.			
<u>SAFETY PHRASES:</u>				
17	Keep away from combustible materials.			
24/25	Avoid contact with skin and eyes.			
26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.			

Section 4 First Aid Measures

1. EYES

Immediately flush eyes with large amounts of water for at least 15 minutes holding lids apart to ensure flushing of the entire surface. Do not attempt to neutralize chemically. Seek medical attention immediately.

Note to physician: Decomposition products are alkaline. Brown stain formed is insoluble manganese dioxide.

2. SKIN

Immediately wash contaminated areas with water. Remove contaminated clothing and footwear. (**Caution:** Solution may ignite certain textiles). Wash clothing and decontaminate footwear before reuse. Seek medical attention if irritation is severe or persistent.

3. INHALATION

Remove person from contaminated area to fresh air. If breathing has stopped, resuscitate and administer oxygen if readily available. Seek medical attention immediately.

4. INGESTION

Never give anything by mouth to an unconscious or convulsing person. If person is conscious, give large quantities of water or milk. Seek medical attention immediately.



LIQUOX[®] sodium permanganate

EC- SAFETY DATA SHEET according to Regulation (EC) № 1907/2006 of the European Parliament and of the Council, of 18 December 2006 concerning REACH

Material Safety Data Sheet
Page 3 of 9

Section 5 Fire Fighting Measures

NFPA* HAZARD SIGNS

Health Hazard	1	=	Materials which under fire conditions would give off irritating combustion products. (less than 1 hour exposure) Materials that on the skin could cause irritation.
Flammability Hazard	0	=	Materials that will not burn.
Reactivity Hazard	0	=	Materials which in themselves are normally stable, even under fire exposure conditions, and which are not reactive with water.
Special Hazard	OX	=	Oxidizer

*National Fire Protection Association 704 (USA)

FIRST RESPONDERS:

Wear protective gloves, boots, goggles, and respirator. In case of fire, wear positive pressure breathing apparatus. Approach incident with caution.

FLASHPOINT

None

FLAMMABLE OR EXPLOSIVE LIMITS EXTINGUISHING MEDIA

Lower: Nonflammable Upper: Nonflammable
Use large quantities of water. Water will turn pink to purple if in contact with sodium permanganate. Dike to contain. Do not use dry chemicals, CO₂ Halon[®] or foams.

SPECIAL FIREFIGHTING PROCEDURES

If material is involved in fire, flood with water. Cool all affected containers with large quantities of water. Apply water from as far a distance as possible. Wear self-contained breathing apparatus and full protective clothing.

UNUSUAL FIRE AND EXPLOSION

Powerful oxidizing material. May decompose spontaneously if exposed to heat (135°C / 275°F). May be explosive in contact with certain other chemicals (Section 10). May react violently with finely divided and readily oxidizable substances. Increases burning rate of combustible material. May ignite wood and cloth.

Section 6 Accidental Release Measures

PERSONAL PRECAUTIONS

Personnel should wear protective clothing suitable for the task. Remove all ignition sources and incompatible materials before attempting clean up.

ENVIRONMENTAL PRECAUTIONS:

Do not flush into sanitary sewer system or surface water. If accidental release into the environment occurs, inform the responsible authorities. Keep the product away from drains, sewers, surface and ground water and soil.

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED

Contain spill by collecting the liquid in a pit or holding behind a dam (sand or soil). Dilute to approximately 6% with water, and then reduce with sodium thiosulfate, a bisulfite or ferrous salt solution. The bisulfite or ferrous salt may require some dilute sulfuric acid (10% w/w) to promote reduction. Neutralize with sodium carbonate to neutral pH, if acid was used. Decant or filter and deposit sludge in approved landfill. Where permitted, the sludge may be drained into sewer with large quantities of water. To clean contaminated floors, flush with abundant quantities of water into sewer, if permitted by federal, state, and local regulations. If not, collect water and treat as above.



LIQUOX[®] sodium permanganate

EC- SAFETY DATA SHEET according to Regulation (EC) № 1907/2006 of the European Parliament and of the Council, of 18 December 2006 concerning REACH

Material Safety Data Sheet
Page 4 of 9

Section 7 Handling and Storage

WORK/HYGIENIC PRACTICES

Wash hands thoroughly with soap and water after handling permanganate solution. Do not eat, drink or smoke when working with sodium permanganate. Wear proper protective equipment. Remove clothing, if it becomes contaminated.

VENTILATION REQUIREMENTS

Provide sufficient mechanical and/or local exhaust to maintain exposure below the TLV/TWA.

CONDITIONS FOR SAFE STORAGE

Store in accordance with NFPA 430 requirements for Class II oxidizers. Protect containers from physical damage. Store in a cool, dry area in closed containers. Segregate from acids, peroxides, formaldehyde, and all combustible, organic, or easily oxidizable materials including antifreeze and hydraulic fluid.

Section 8 Exposure Controls and Personal Protection

RESPIRATORY PROTECTION

In cases where overexposure to mist may occur, the use of an approved NIOSH-MSHA mist respirator or an air supplied respirator is advised. Engineering or administrative controls should be implemented to control mist.

EYE

Faceshield, goggles, or safety glasses with side shields should be worn. Provide eyewash in working area.

GLOVES

Rubber or plastic gloves should be worn.

OTHER PROTECTIVE EQUIPMENT

Chemically resistant clothing covering arms and legs, and rubber, or plastic apron should be worn. **Caution:** If clothing becomes contaminated, wash off immediately. Spontaneous ignition may occur with cloth or paper.

Section 9 Physical and Chemical Properties

APPEARANCE AND ODOR

Dark purple solution, odorless

BOILING POINT, 760 mm Hg

>101°C

VAPOR PRESSURE (mm Hg)

760 mm at 105°C

SOLUBILITY IN WATER % BY SOLUTION

Miscible in all proportions with water

PERCENT VOLATILE BY VOLUME

61-85% (as water)

EVAPORATION RATE

Same as water

FREEZING POINT

<-4.0 °C

SPECIFIC GRAVITY

1.16 - 1.36

pH

6-9

OXIDIZING PROPERTIES

Strong oxidizer. May ignite wood and cloth.

EXPLOSIVE PROPERTIES

Explosive in contact with sulfuric acid or peroxides, or readily oxidizable substances.



LIQUOX[®] sodium permanganate

EC- SAFETY DATA SHEET according to Regulation (EC) № 1907/2006 of the European Parliament and of the Council, of 18 December 2006 concerning REACH

Material Safety Data Sheet
Page 5 of 9

Section 10 Stability and Reactivity

STABILITY	Under normal conditions, the material is stable.
CONDITIONS TO AVOID	Contact with incompatible materials or heat (135°C / 275°F) could result in violent exothermic chemical reaction.
INCOMPATIBLE MATERIALS	Acids, peroxides, and all combustible organic or readily oxidizable materials including inorganic oxidizable materials and metal powders. With hydrochloric acid, chlorine gas is liberated.
HAZARDOUS DECOMPOSITION PRODUCTS	When involved in a fire, sodium permanganate may form corrosive fumes.
CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION	Material is not known to polymerize.

Section 11 Toxicological Information

SODIUM PERMANGANATE: Acute oral LD₅₀ not known.

1. ACUTE TOXICITY

Irritating to body tissue with which it comes into contact. No acute toxicity data is available for sodium permanganate. Toxicity is expected to be similar to that of potassium permanganate. The toxicity data for potassium permanganate is given below:

INGESTION:

LD 50 oral rat: 780 mg/kg male (14 days); 525 mg/kg female (14 days).

Harmful if swallowed. ALD: 10g. Ingestion may cause nausea, vomiting, sore throat, stomach-ache and eventually lead to a perforation of the intestine. Liver and kidney injuries may occur.

SKIN CONTACT:

LD 50 dermal no data available.

Major effects of exposure: severe irritation, brown staining of skin.

INHALATION:

LC 50 inhal. no data available.

The product may be absorbed into the body by inhalation. Major effects of exposure: respiratory disorder, cough.

2. CHRONIC TOXICITY

No known cases of chronic poisoning due to permanganates have been reported. Prolonged exposure, usually over many years, to heavy concentrations of manganese oxides in the form of dust and fumes may lead to chronic manganese poisoning, chiefly involving the central nervous system.

3. CARCINOGENICITY

Sodium permanganate has not been classified as a carcinogen by ACGIH, NIOSH, OSHA, NTP, or IARC.

4. MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE

Sodium permanganate solution will cause further irritation of tissue, open wounds, burns or mucous membranes.



LIQUOX[®] sodium permanganate

EC- SAFETY DATA SHEET according to Regulation (EC) № 1907/2006 of the European Parliament and of the Council, of 18 December 2006 concerning REACH

Material Safety Data Sheet
Page 6 of 9

Section 12 Ecological Information

ENTRY TO THE ENVIRONMENT

Permanganate has a low estimated lifetime in the environment, being readily converted by oxidizable materials to insoluble MnO₂.

BIOCONCENTRATION POTENTIAL

In non-reducing and non-acidic environments, MnO₂ is insoluble and has a very low bioaccumulative potential.

AQUATIC TOXICITY

No aquatic toxicity data is available for sodium permanganate. Toxicity is expected to be similar to that of potassium permanganate. The toxicity data for potassium permanganate is given below:

Rainbow trout, 96 hour LC ₅₀ for potassium permanganate:	1.8 mg/L
Bluegill sunfish, 96 hour LC ₅₀ LC50 for potassium permanganate:	2.3 mg/L
Milk fish (Chanos Chanos)/ 96 hour LC ₅₀ LC50 for potassium permanganate:	>1.4mg/l

Section 13 Disposal Considerations

WASTE DISPOSAL

When it becomes a waste, sodium permanganate is considered a D001 hazardous (ignitable) waste. For disposal of sodium permanganate solutions, follow procedures in Section 6 and deactivate the permanganate to insoluble manganese dioxide. Dispose of it in a permitted landfill. Contact Carus Corporation for additional recommendations.

Section 14 Transport Information

USA (land, D.O.T.)	Proper Shipping Name: 49 CFR172.101 Permanganates, inorganic, aqueous solution, n.o.s. (contains sodium permanganate) Hazard Class: 49 CFR172.101....Oxidizer ID Number: 49 CFR172.101....UN 3214 Packing Group: 49 CFR172.101....II Division: 49 CFR172.101....5.1
European Labeling in accordance Road/Rail Transport (ADR/RID)	ID Number: UN 3214 ADR/RID Class 5.1 Description of Goods: Permanganates, inorganic, aqueous solution, n.o.s. (contains sodium permanganate) Hazard Identification No. 50
European Labeling in accordance with EC directive (Water, I.M.O.)	Proper Shipping Name: Permanganates, inorganic, aqueous solution, n.o.s. (contains sodium permanganate) Hazard Class: Oxidizer ID Number: UN 3214 Packing Group: II Division: 5.1 Marine Pollutant: No



LIQUOX[®] sodium permanganate

EC- SAFETY DATA SHEET according to Regulation (EC) № 1907/2006 of the European Parliament and of the Council, of 18 December 2006 concerning REACH

Material Safety Data Sheet
Page 7 of 9

Section 14 Transport Information (contd.)

European Labeling in accordance with EC directive (Air, I.C.A.O.)	Proper Shipping Name: Permanganates, inorganic, aqueous solution, n.o.s (contains sodium permanganate)
	Hazard Class: Oxidizer
	ID Number: UN 3214
	Packing Group: II
	Division: 5.1

Section 15 Regulatory Information

EUROPEAN AND INTERNATIONAL REGULATIONS:

MARKINGS ACCORDING TO EU GUIDELINES:

The product has been classified and marked in accordance with EU directives/ordinances on hazardous materials.

<u>CHEMICAL NAME</u>	<u>CAS NO.</u>	<u>EINECS</u>	<u>UN NUMBER</u>
Sodium Permanganate	10101-50-5	233-251-1	UN 3214

CODE LETTER AND HAZARD DESIGNATION OF THE PRODUCT:



O
Oxidizer



Xn
Harmful



N
Dangerous to the Environment

RISK PHRASES:

- 8 Contact with combustibles may cause fire.
- 22 Harmful if swallowed.
- 50/53 Very toxic to aquatic organisms, may cause long-term effects in the aquatic environment.

SAFETY PHRASES:

- 17 Keep away from combustible materials.
- 24/25 Avoid contact with skin and eyes.
- 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.



LIQUOX[®] sodium permanganate

EC- SAFETY DATA SHEET according to Regulation (EC) № 1907/2006 of the European Parliament and of the Council, of 18 December 2006 concerning REACH

Material Safety Data Sheet
Page 8 of 9

Section 15 Regulatory Information (contd.)

US FEDERAL REGULATIONS:

CHEMICAL INVENTORY STATUS – PART 1

<u>Ingredient</u>	<u>CAS. NO.</u>	<u>TSCA</u>	<u>EC</u>	<u>Japan</u>	<u>Australia</u>
Sodium permanganate	10101-50-5	Yes	Yes		

CHEMICAL INVENTORY STATUS – PART 2 --- CANADA --

<u>Ingredient</u>	<u>CAS. NO.</u>	<u>Korea</u>	<u>DSL</u>	<u>NDSL</u>	<u>PHIL</u>
Sodium permanganate	10101-50-5	No	No	Yes	

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulation (CPR, Canada) and the MSDS contains all of the information required by the CPR.

FEDERAL, STATE & INTERNATIONAL REGULATIONS – PART 1

<u>Ingredient</u>	<u>CAS. NO.</u>	<u>SARA 302</u>	<u>SARA 313</u>
		<u>RQ</u>	<u>TPQ</u>
		<u>List</u>	<u>Chemical Catg.</u>
Sodium permanganate	10101-50-5	N/A	N/A
		No	Yes
			(Manganese compounds)

FEDERAL, STATE & INTERNATIONAL REGULATIONS – PART 2

<u>Ingredient</u>	<u>CAS. NO.</u>	<u>CERCLA</u>	<u>RCRA</u>	<u>TSCA 8(d)</u>
Sodium permanganate	10101-50-5	No	D001	No

<u>Ingredient</u>	<u>CAS. NO.</u>	<u>CWC</u>	<u>TSCA 12(b)</u>	<u>CDTA</u>	<u>SARA</u>
					<u>311/312</u>
Sodium permanganate	10101-50-5	No	No		4545 Kg

<u>Ingredient</u>	<u>CAS. NO.</u>	<u>Acute</u>	<u>Chronic</u>	<u>Fire</u>	<u>Pressure</u>	<u>Reactivity</u>	<u>Pure/Liquid</u>
Sodium permanganate	10101-50-5	Yes	Yes	Yes	No	No	Liquid

<u>Ingredient</u>	<u>CAS. NO.</u>	<u>Australian Hazchem Code</u>	<u>Poison Schedule</u>	<u>WHMIS</u>
Sodium permanganate	10101-50-5			C, D2B



LIQUOX[®] sodium permanganate

EC- SAFETY DATA SHEET according to Regulation (EC) № 1907/2006 of the European Parliament and of the Council, of 18 December 2006 concerning REACH

Material Safety Data Sheet
Page 9 of 9

Section 16 Other Information

NIOSH	National Institute for Occupational Safety and Health
MSHA	Mine Safety and Health Administration
OSHA	Occupational Safety and Health Administration
NTP	National Toxicology Program
IARC	International Agency for Research on Cancer
PEL	Permissible Exposure Limit
C	Ceiling Exposure Limit
TLV-TWA	Threshold Limit Value-Time Weighted Average
CAS	Chemical Abstract Service
EINECS	Inventory of Existing Chemical Substances (European)

Chithambarathanu Pillai (S.O.F.)
April 2008

The information contained herein is accurate to the best of our knowledge. However, data, safety standards and government regulations are subject to change and, therefore, holders and users should satisfy themselves that they are aware of all current data and regulations relevant to their particular use of product. CARUS CORPORATION DISCLAIMS ALL LIABILITY FOR RELIANCE ON THE COMPLETENESS OR ACCURACY OR THE INFORMATION INCLUDED HEREIN. CARUS CORPORATION MAKES NO WARRANTY, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR PARTICULAR USE OR PURPOSE OF THE PRODUCT DESCRIBED HEREIN. All conditions relating to storage, handling, and use of the product are beyond the control of Carus Corporation, and shall be the sole responsibility of the holder or user of the product.

CARUS CORPORATION, 315 5TH STREET, PERU, ILLINOIS 61354

CARUS NALON S.L. IS A DIVISION OF CARUS CORPORATION, 315 5TH STREET, PERU, ILLINOIS 61354



LIQUOX[®] is a registered service mark of Carus Corporation. LIQUOX[®] sodium permanganate is a trademark of Carus Corporation. CARUS[®] is a registered trademark of Carus Corporation. Copyright 1998. Responsible Care[®] is a registered service mark of the American Chemistry Council.



Packaging, Storage, Health and Safety

PersulfOx® is a chemical oxidation technology developed by REGENESIS for the remediation of organic contaminants in soil and groundwater which employs a patented “catalyzed persulfate” technology. PersulfOx is mixed with water and applied to the contaminated matrix via mixing equipment or subsurface injection techniques. When adding the fine dry PersulfOx powder to the mix water, proper handling and dust precautions should be followed as listed under Health and Safety below (also review MSDS).

Packaging and Storage:

PersulfOx is a dry, white, and free flowing powder delivered in 30 lb. pails or 55.1 lb (25 kg) bags. It ships as a DOT 5.1 Class Oxidizer and should be handled according to rules and regulations governing oxidizers. PersulfOx should be stored in a cool (<40° C), clean, dry, and well-ventilated area and away from heat and moisture. It should not be stored with combustible or reducing materials.

Health and Safety:

PersulfOx is engineered for ease of handling in the field and is safely mixed without the risks and potential hazards associated with most other chemical oxidants such as alkaline activated sodium persulfate. However, PersulfOx is an oxidizer/catalyst powder mixture, therefore Level C proper protective equipment (PPE) is recommended for all personnel working with or in areas of potential contact with PersulfOx. In addition, PersulfOx is an alkaline product when in solution; if left to stand for a long periods, persulfate based products can become acidic. Under either alkaline or acidic conditions PersulfOx can be caustic and corrosive and degrade equipment surfaces.

Personal Protective Equipment (PPE)

- Eye protection – Wear well sealed goggles or a face shield (face shield recommended for full face protection)
- Head – Hard hat when required
- Respiratory – Use NIOSH(P100) approved respirator when airborne dust is expected
- Hands – Wear chemical resistant gloves (neoprene, rubber, PVC)
- Feet – Wear steel toe shoes with chemical resistant soles or neoprene boots
- Clothing – Wear long sleeve shirts and long pant legs. Consider using a Tyvek® body suit, Carhartt® coverall or splash gear
- Engineering Controls-ventilation is required if used indoors. Controls should be maintained to avoid creation of dusts and mists.



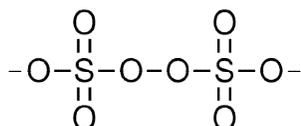
REGENESIS

Advanced Technologies for Groundwater Resources

REGENESIS / 949-366-8000 / www.regenesis.com

PersulfOxTM is an *in situ* chemical oxidation reagent that destroys organic groundwater and soil contaminants through powerful yet controlled chemical reactions. PersulfOx is a sodium persulfate (Na₂S₂O₈) - based technology which employs a unique, patented silica-based catalyst to enhance oxidative destruction of both hydrocarbon and chlorinated contaminants in the subsurface.

Figure 1. Sodium Persulfate
Chemical Structure



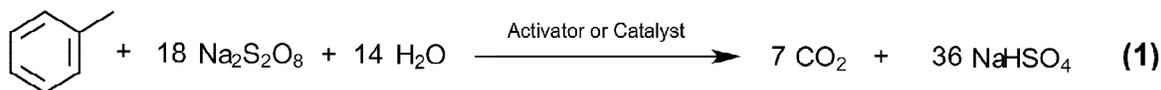
Traditionally, sodium persulfate is activated with the addition of heat, chelated metals, hydrogen peroxide, or base in order to generate sulfate radicals. These activation processes can be inherently complex, costly and can pose additional health and safety risks. In comparison, PersulfOx is a very safe and easy-to-use ISCO agent.

In short, PersulfOx contains a built-in catalyst which activates the persulfate component and generates contaminant destroying free radicals without the need for the addition of a separate chemical.

The PersulfOx catalyst is a silica based, microscopic surface on which oxidants and contaminants can come together and react in a distinct process known as "surface mediated oxidation." During this process, oxidation reactions occur repeatedly on the surface of the catalyst serving several contaminant-reducing functions:

- Generation of sulfate radical and other oxidizing species
- Accelerates oxidation through the adsorption of contaminant molecules and other oxidizing species
- Catalyzes direct and free-radical-mediated oxidation by sodium persulfate

The equation below shows the net complete oxidation of toluene, a constituent of gasoline, by PersulfOx.



PersulfOx is an all-in-one product with a mildly alkaline pH and excellent oxidation performance. It is easily mixed with water and applied into the contaminated matrix using subsurface injection techniques or soil mixing tools.

Key PersulfOxTM Information:

- Promotes rapid and sustained *in situ* oxidation of a wide-range of organic contaminants
- Provides a unique catalytic surface on which oxidants and contaminants react in a process known as "surface mediated oxidation."
- Contains built-in-activation: no complex and potentially hazardous chemical addition required to achieve contaminant destruction
- Fewer health and safety concerns than with use of traditional activation methods such as heat, chelated metals, hydrogen peroxide or base
- Simplified logistics and ease of application due to one part product. No additional containers and mixing ratios required prior to application
- Contaminant oxidation performance equivalent to best alternative persulfate activation methods

APPENDIX B

**CENTRAL ARKANSAS WATER APPROVAL LETTER
AND WATER TEST RESULTS**

September 5, 2014

Jane Spellman, P.G.
FTN Associates, Ltd.
124 West Sunbridge Drive, Suite 3
Fayetteville, AR 72703

Re: Water Meter Connection
Timex Remediation Site – Crisp Drive & Calhoun Street
Little Rock, Arkansas

Dear Ms. Spellman,

In follow-up to the discussion on August 28 with FTN Associates, this letter is to confirm that Central Arkansas Water will be able to furnish a meter connection to supply potable water for the remediation test at the referenced site. The connection will be subject to the normal review and fees specified by CAW for this type of service.

Please contact me prior to your client's application for this connection as there may be additional stipulations related to backflow prevention, the location of where the connection will be made, whether the connection will be through a fire hydrant or through a tapped, below-grade connection, as well as other factors.

Attached are the analytical results and related map of fire hydrants both on and off the Timex site that were recently sampled by Central Arkansas Water.

If any questions in this regard, please feel free to contact me to discuss.

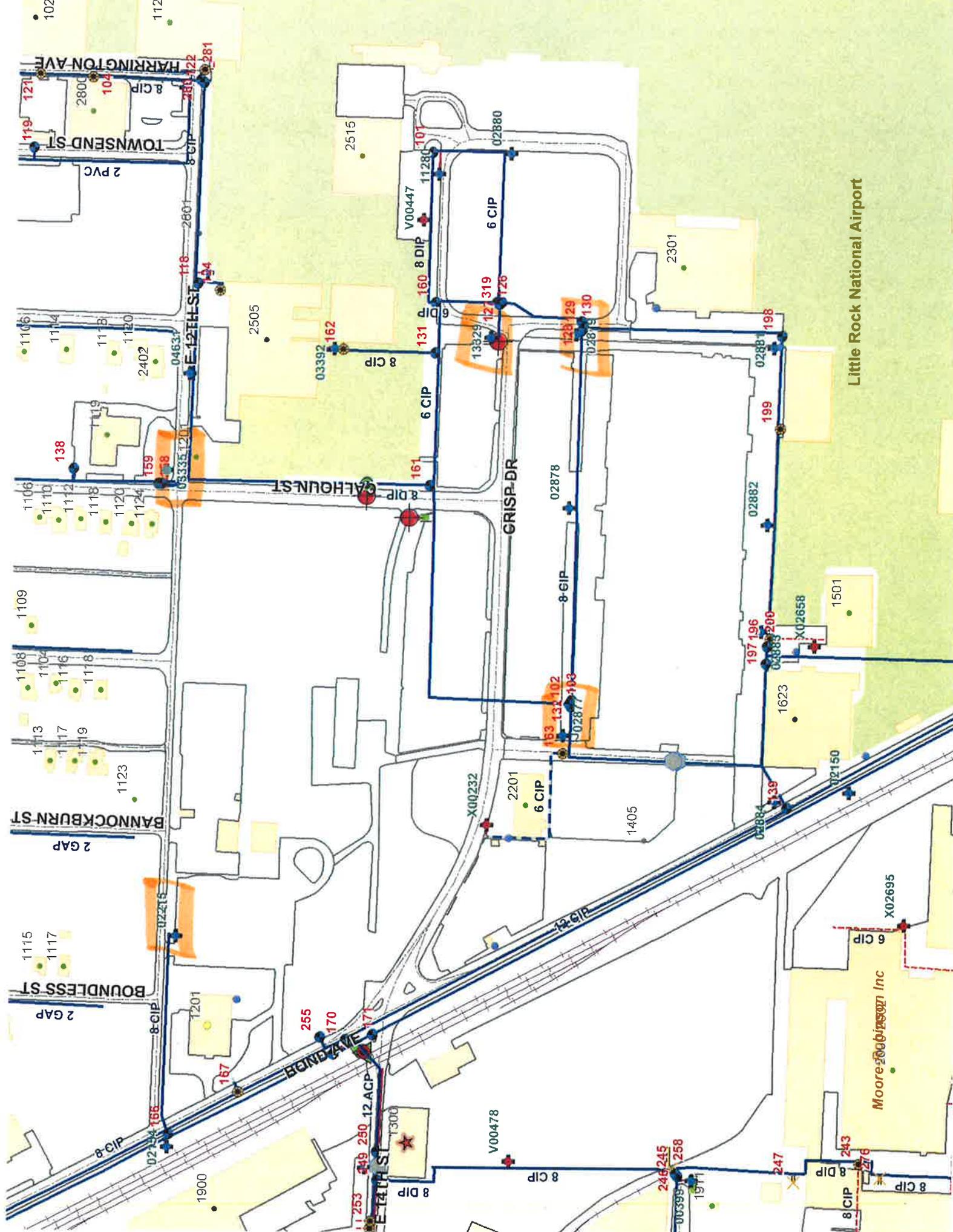
Sincerely,



Jim Ferguson, P.E.
Director of Engineering

Encl.

cc: Jordon Johnson
Robert Hart, P.E., CAW
John Tynan, CAW



Little Rock National Airport

Moore Business Inc

1025

1121

1900

2505

2515

2301

1501

1405

1201

1115

1117

1123

1113

1117

1119

1118

1116

1104

1110

1112

1118

1120

1124

1119

1116

1114

1118

1120

1116

1114

1118

1120

1116

1114

1118

1120

1115

1117

1119

1118

1120

1124

1119

1116

1104

1110

1112

1118

1120

1124

1119

1116

1114

1118

1120

1124

1119

1116

1114

1118

1120

1124

1119

1116

1114

1118

1120

1124

1119

1116

1114

1118

1120

1124

1119

1115

1117

1119

1118

1120

1124

1119

1116

1104

1110

1112

1118

1120

1124

1119

1116

1114

1118

1120

1124

1119

1116

1114

1118

1120

1124

1119

1116

1114

1118

1120

1124

1119

1116

1114

1118

1120

1124

1119

1115

1117

1119

1118

1120

1124

1119

1116

1104

1110

1112

1118

1120

1124

1119

1116

1114

1118

1120

1124

1119

1116

1114

1118

1120

1124

1119

1116

1114

1118

1120

1124

1119

1116

1114

1118

1120

1124

1119

1115

1117

1119

1118

1120

1124

1119

1116

1104

1110

1112

1118

1120

1124

1119

1116

1114

1118

1120

1124

1119

1116

1114

1118

1120

1124

1119

1116

1114

1118

1120

1124

1119

1116

1114

1118

1120

1124

1119

1115

1117

1119

1118

1120

1124

1119

1116

1104

1110

1112

1118

1120

1124

1119

1116

1114

1118

1120

1124

1119

1116

1114

1118

1120

1124

1119

1116

1114

1118

1120

1124

1119

1116

1114

1118

1120

1124

1119

1115

1117

1119

1118

1120

1124

1119

1116

1104

1110

1112

1118

1120

1124

1119

1116

1114

1118

1120

1124

1119

1116

1114

1118

1120

1124

1119

1116

1114

1118

1120

1124

1119

1116

1114

1118

1120

1124

1119

1115

1117

1119

1118

1120

1124

1119

1116

1104

1110

1112

1118

1120

1124

1119

1116

1114

1118

1120

1124

1119

1116

1114

1118

1120

1124

1119

1116

1114

111



Central Arkansas Water
ATTN: Mr. Randy Easley
338 Pleasant Valley Drive
Little Rock, AR 72212

This report contains the analytical results and supporting information for samples submitted on May 12, 2014. Attached please find a copy of the Chain of Custody and/or other documents received. Note that any remaining sample will be discarded two weeks from the original report date unless other arrangements are made.

This report is intended for the sole use of the client listed above. Assessment of the data requires access to the entire document.

This report has been reviewed by the Laboratory Director or a qualified designee.

A handwritten signature in cursive script that reads 'Steve Bradford'.

Steve Bradford
Deputy Laboratory Director

This document has been distributed to the following:

PDF cc: Central Arkansas Water
ATTN: Mr. Randy Easley
randy.easley@carkw.com

Central Arkansas Water
ATTN: Ms. Sharon Sweeney
sharon.sweeney@carkw.com

Central Arkansas Water
338 Pleasant Valley Drive
Little Rock, AR 72212

SAMPLE INFORMATION

Project Description:

Three (3) water sample(s) received on May 12, 2014

Receipt Details:

A Chain of Custody was provided. The samples were delivered in two (2) ice chests.

Each sample container was checked for proper labeling, including date and time sampled. Sample containers were reviewed for proper type, adequate volume, integrity, temperature, preservation, and holding times. Any exceptions are noted below:

Sample Identification:

<u>Laboratory ID</u>	<u>Client Sample ID</u>	<u>Sampled Date/Time</u>	<u>Notes</u>
178490-1	03335 5-12-2014 @ 1132	12-May-2014 1132	1
178490-2	02215 5-12-2014 @ 1155	12-May-2014 1155	1
178490-3	13263 5-12-2014 @ 1308	12-May-2014 1308	1

Notes:

1. Received temperature of samples did not meet regulatory requirements

Qualifiers:

- D Result is from a secondary dilution factor
- R n-Nitrosodiphenylamine cannot be separated from diphenylamine

References:

- "Methods for Chemical Analysis of Water and Wastes", EPA/600/4-79-020 (Mar 1983) with updates and supplements EPA/600/5-91-010 (Jun 1991), EPA/600/R-92-129 (Aug 1992) and EPA/600/R-93-100 (Aug 1993).
- "Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW846)", Third Edition.
- "Standard Methods for the Examination of Water and Wastewaters", (SM).
- "American Society for Testing and Materials" (ASTM).
- "Association of Analytical Chemists" (AOAC).

Central Arkansas Water
 338 Pleasant Valley Drive
 Little Rock, AR 72212

ANALYTICAL RESULTS
AIC No. 178490-1

Sample Identification: 03335 5-12-2014 @ 1132

Analyte	Result	RL	Units	Qualifier
Total Recoverable Phenolics EPA 420.1	11	5	ug/l	
Prep: 13-May-2014 0831 by 308	Analyzed: 13-May-2014 1215 by 308		Batch: W47676	
Chromium, Hexavalent SM 3500-Cr B 2009	< 10	10	ug/l	
Prep: 13-May-2014 1420 by 308	Analyzed: 13-May-2014 1530 by 308		Batch: W47688	
Total Cyanide SM 4500-CN C,E 1999	< 10	10	ug/l	
Prep: 13-May-2014 0905 by 308	Analyzed: 13-May-2014 1553 by 308		Batch: W47679	
Mercury, low level EPA 245.7	< 0.0050	0.0050	ug/l	
Prep: 16-May-2014 0909 by 311	Analyzed: 16-May-2014 1116 by 311		Batch: S36804	
Total Recoverable Antimony EPA 200.8	< 60	60	ug/l	
Prep: 13-May-2014 1341 by 285	Analyzed: 14-May-2014 1727 by 305		Batch: S36787	
Total Recoverable Arsenic EPA 200.8	< 0.5	0.5	ug/l	
Prep: 13-May-2014 1341 by 285	Analyzed: 14-May-2014 1727 by 305		Batch: S36787	
Total Recoverable Beryllium EPA 200.8	< 0.5	0.5	ug/l	
Prep: 13-May-2014 1341 by 285	Analyzed: 14-May-2014 1727 by 305		Batch: S36787	
Total Recoverable Cadmium EPA 200.8	< 0.5	0.5	ug/l	
Prep: 13-May-2014 1341 by 285	Analyzed: 14-May-2014 1727 by 305		Batch: S36787	
Total Recoverable Chromium EPA 200.8	< 10	10	ug/l	
Prep: 13-May-2014 1341 by 285	Analyzed: 14-May-2014 1727 by 305		Batch: S36787	
Total Recoverable Copper EPA 200.8	0.72	0.5	ug/l	
Prep: 13-May-2014 1341 by 285	Analyzed: 14-May-2014 1727 by 305		Batch: S36787	
Total Recoverable Lead EPA 200.8	< 0.5	0.5	ug/l	
Prep: 13-May-2014 1341 by 285	Analyzed: 14-May-2014 1727 by 305		Batch: S36787	
Total Recoverable Nickel EPA 200.8	< 0.5	0.5	ug/l	
Prep: 13-May-2014 1341 by 285	Analyzed: 14-May-2014 1727 by 305		Batch: S36787	
Total Recoverable Selenium EPA 200.8	< 5	5	ug/l	
Prep: 13-May-2014 1341 by 285	Analyzed: 14-May-2014 1727 by 305		Batch: S36787	
Total Recoverable Silver EPA 200.8	< 0.5	0.5	ug/l	
Prep: 13-May-2014 1341 by 285	Analyzed: 14-May-2014 1727 by 305		Batch: S36787	
Total Recoverable Thallium EPA 200.8	< 0.5	0.5	ug/l	
Prep: 13-May-2014 1341 by 285	Analyzed: 14-May-2014 1727 by 305		Batch: S36787	
Total Recoverable Zinc EPA 200.8	62	20	ug/l	
Prep: 13-May-2014 1341 by 285	Analyzed: 14-May-2014 1727 by 305		Batch: S36787	
Base/Neutral and Acid Compounds By EPA 625				
Acenaphthene EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
Acenaphthylene EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
Anthracene EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	

Central Arkansas Water
 338 Pleasant Valley Drive
 Little Rock, AR 72212

ANALYTICAL RESULTS
AIC No. 178490-1 (Continued)
Sample Identification: 03335 5-12-2014 @ 1132

Analyte	Result	RL	Units	Qualifier
Base/Neutral and Acid Compounds By EPA 625 (Continued)				
Benzidine EPA 625	< 50	50	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
Benzo(a)anthracene EPA 625	< 5.0	5.0	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
Benzo(a)pyrene EPA 625	< 5.0	5.0	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
Benzo(g,h,i)perylene EPA 625	< 20	20	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
Benzo(k)fluoranthene EPA 625	< 5.0	5.0	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
3,4-Benzofluoranthene EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
Bis(2-chloroethoxy)methane EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
Bis(2-chloroethyl)ether EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
Bis(2-chloroisopropyl)ether EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
Bis(2-ethylhexyl)phthalate EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
4-Bromophenyl phenyl ether EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
Butylbenzyl phthalate EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
2-Chloronaphthalene EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
2-Chlorophenol EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
4-Chlorophenyl phenyl ether EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
Chrysene EPA 625	< 5.0	5.0	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
Di-n-butyl phthalate EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
Di-n-octyl phthalate EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
Dibenz(a,h)anthracene EPA 625	< 5.0	5.0	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	

Central Arkansas Water
 338 Pleasant Valley Drive
 Little Rock, AR 72212

ANALYTICAL RESULTS
AIC No. 178490-1 (Continued)
Sample Identification: 03335 5-12-2014 @ 1132

Analyte	Result	RL	Units	Qualifier
Base/Neutral and Acid Compounds By EPA 625 (Continued)				
3,3'-Dichlorobenzidine EPA 625	< 5.0	5.0	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
2,4-Dichlorophenol EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
Diethyl phthalate EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
Dimethyl phthalate EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
2,4-Dimethylphenol EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
4,6-Dinitro-o-cresol EPA 625	< 50	50	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
2,4-Dinitrophenol EPA 625	< 50	50	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
2,4-Dinitrotoluene EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
2,6-Dinitrotoluene EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
1,2-Diphenylhydrazine EPA 625	< 20	20	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
Fluorene EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
Hexachlorobenzene EPA 625	< 5.0	5.0	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
Hexachlorobutadiene EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
Hexachlorocyclopentadiene EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
Hexachloroethane EPA 625	< 20	20	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
Indeno(1,2,3-cd)pyrene EPA 625	< 5.0	5.0	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
Isophorone EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
n-Nitrosodi-n-propylamine EPA 625	< 20	20	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
n-Nitrosodimethylamine EPA 625	< 50	50	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	

Central Arkansas Water
 338 Pleasant Valley Drive
 Little Rock, AR 72212

ANALYTICAL RESULTS
AIC No. 178490-1 (Continued)
Sample Identification: 03335 5-12-2014 @ 1132

Analyte		Result	RL	Units	Qualifier
Base/Neutral and Acid Compounds By EPA 625 (Continued)					
n-Nitrosodiphenylamine		< 20	20	ug/l	R
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
Naphthalene		< 10	10	ug/l	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
Nitrobenzene		< 10	10	ug/l	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
2-Nitrophenol		< 20	20	ug/l	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
4-Nitrophenol		< 50	50	ug/l	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
p-Chloro-m-cresol		< 10	10	ug/l	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
Pentachlorophenol		< 5.0	5.0	ug/l	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
Phenanthrene		< 10	10	ug/l	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
Phenol		< 10	10	ug/l	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
Pyrene		< 10	10	ug/l	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
1,2,4-Trichlorobenzene		< 10	10	ug/l	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
2,4,6-Trichlorophenol		< 10	10	ug/l	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
Surrogate: 2-Fluorobiphenyl (50.0-110%)		85.0		%	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
Surrogate: 2-Fluorophenol (20.0-110%)		58.9		%	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
Surrogate: Nitrobenzene-D5 (40.0-110%)		84.0		%	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
Surrogate: Terphenyl-D14 (50.0-135%)		89.1		%	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
Surrogate: 2,4,6-Tribromophenol (40.0-125%)		48.5		%	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2016 by 301		Batch: B8961	
Volatile Organic Compounds By EPA 624					
Acrolein		< 50	50	ug/l	
EPA 624	Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1727 by 301		Batch: V8517	
Acrylonitrile		< 20	20	ug/l	
EPA 624	Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1727 by 301		Batch: V8517	

Central Arkansas Water
 338 Pleasant Valley Drive
 Little Rock, AR 72212

ANALYTICAL RESULTS
AIC No. 178490-1 (Continued)
Sample Identification: 03335 5-12-2014 @ 1132

Analyte	Result	RL	Units	Qualifier
Volatile Organic Compounds By EPA 624 (Continued)				
Benzene EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1727 by 301		Batch: V8517	
Bromoform EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1727 by 301		Batch: V8517	
Carbon tetrachloride EPA 624	< 2.0	2.0	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1727 by 301		Batch: V8517	
Chlorobenzene EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1727 by 301		Batch: V8517	
Chlorodibromomethane EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1727 by 301		Batch: V8517	
Chloroethane EPA 624	< 50	50	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1727 by 301		Batch: V8517	
2-Chloroethyl vinyl ether EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1727 by 301		Batch: V8517	
Chloroform EPA 624	21	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1727 by 301		Batch: V8517	
1,2-Dichlorobenzene EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1727 by 301		Batch: V8517	
1,3-Dichlorobenzene EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1727 by 301		Batch: V8517	
1,4-Dichlorobenzene EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1727 by 301		Batch: V8517	
Dichlorobromomethane EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1727 by 301		Batch: V8517	
1,1-Dichloroethane EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1727 by 301		Batch: V8517	
1,2-Dichloroethane EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1727 by 301		Batch: V8517	
1,1-Dichloroethylene EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1727 by 301		Batch: V8517	
trans-1,2-Dichloroethylene EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1727 by 301		Batch: V8517	
1,2-Dichloropropane EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1727 by 301		Batch: V8517	
1,3-Dichloropropylene EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1727 by 301		Batch: V8517	
Ethylbenzene EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1727 by 301		Batch: V8517	

Central Arkansas Water
 338 Pleasant Valley Drive
 Little Rock, AR 72212

ANALYTICAL RESULTS

AIC No. 178490-1 (Continued)
Sample Identification: 03335 5-12-2014 @ 1132

<u>Analyte</u>	<u>Result</u>	<u>RL</u>	<u>Units</u>	<u>Qualifier</u>
Volatile Organic Compounds By EPA 624 (Continued)				
Methyl bromide(Bromomethane) EPA 624	< 50 Prep: 13-May-2014 1031 by 301 Analyzed: 13-May-2014 1727 by 301	50	ug/l	Batch: V8517
Methyl chloride(Chloromethane) EPA 624	< 50 Prep: 13-May-2014 1031 by 301 Analyzed: 13-May-2014 1727 by 301	50	ug/l	Batch: V8517
Methylene chloride EPA 624	< 20 Prep: 13-May-2014 1031 by 301 Analyzed: 13-May-2014 1727 by 301	20	ug/l	Batch: V8517
1,1,2,2-Tetrachloroethane EPA 624	< 10 Prep: 13-May-2014 1031 by 301 Analyzed: 13-May-2014 1727 by 301	10	ug/l	Batch: V8517
Tetrachloroethylene EPA 624	< 10 Prep: 13-May-2014 1031 by 301 Analyzed: 13-May-2014 1727 by 301	10	ug/l	Batch: V8517
Toluene EPA 624	< 10 Prep: 13-May-2014 1031 by 301 Analyzed: 13-May-2014 1727 by 301	10	ug/l	Batch: V8517
1,1,1-Trichloroethane EPA 624	< 10 Prep: 13-May-2014 1031 by 301 Analyzed: 13-May-2014 1727 by 301	10	ug/l	Batch: V8517
1,1,2-Trichloroethane EPA 624	< 10 Prep: 13-May-2014 1031 by 301 Analyzed: 13-May-2014 1727 by 301	10	ug/l	Batch: V8517
Trichloroethylene EPA 624	< 10 Prep: 13-May-2014 1031 by 301 Analyzed: 13-May-2014 1727 by 301	10	ug/l	Batch: V8517
Vinyl chloride EPA 624	< 10 Prep: 13-May-2014 1031 by 301 Analyzed: 13-May-2014 1727 by 301	10	ug/l	Batch: V8517
Surrogate: 4-Bromofluorobenzene (75.0-120%) EPA 624	94.3 Prep: 13-May-2014 1031 by 301 Analyzed: 13-May-2014 1727 by 301		%	Batch: V8517
Surrogate: Dibromofluoromethane (85.0-115%) EPA 624	110 Prep: 13-May-2014 1031 by 301 Analyzed: 13-May-2014 1727 by 301		%	Batch: V8517
Surrogate: Toluene-D8 (85.0-120%) EPA 624	98.8 Prep: 13-May-2014 1031 by 301 Analyzed: 13-May-2014 1727 by 301		%	Batch: V8517
Organochlorine Pesticides and PCBs By EPA 608				
Aldrin EPA 608	< 0.010 Prep: 14-May-2014 1153 by 306 Analyzed: 14-May-2014 1757 by 306	0.010	ug/l	Batch: G9711
alpha-BHC EPA 608	< 0.050 Prep: 14-May-2014 1153 by 306 Analyzed: 14-May-2014 1757 by 306	0.050	ug/l	Batch: G9711
alpha-Endosulfan EPA 608	< 0.010 Prep: 14-May-2014 1153 by 306 Analyzed: 14-May-2014 1757 by 306	0.010	ug/l	Batch: G9711
beta-BHC EPA 608	< 0.050 Prep: 14-May-2014 1153 by 306 Analyzed: 14-May-2014 1757 by 306	0.050	ug/l	Batch: G9711
beta-Endosulfan EPA 608	< 0.020 Prep: 14-May-2014 1153 by 306 Analyzed: 14-May-2014 1757 by 306	0.020	ug/l	Batch: G9711
Chlordane EPA 608	< 0.20 Prep: 14-May-2014 1153 by 306 Analyzed: 14-May-2014 1757 by 306	0.20	ug/l	Batch: G9711

Central Arkansas Water
338 Pleasant Valley Drive
Little Rock, AR 72212

ANALYTICAL RESULTS

AIC No. 178490-1 (Continued)

Sample Identification: 03335 5-12-2014 @ 1132

<u>Analyte</u>	<u>Result</u>	<u>RL</u>	<u>Units</u>	<u>Qualifier</u>
Organochlorine Pesticides and PCBs By EPA 608 (Continued)				
Chlorpyrifos EPA 608	< 0.070	0.070	ug/l	
	Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1757 by 306	Batch: G9711	
4,4'-DDD EPA 608	< 0.10	0.10	ug/l	
	Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1757 by 306	Batch: G9711	
4,4'-DDE EPA 608	< 0.10	0.10	ug/l	
	Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1757 by 306	Batch: G9711	
4,4'-DDT EPA 608	< 0.020	0.020	ug/l	
	Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1757 by 306	Batch: G9711	
delta-BHC EPA 608	< 0.050	0.050	ug/l	
	Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1757 by 306	Batch: G9711	
Dieldrin EPA 608	< 0.020	0.020	ug/l	
	Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1757 by 306	Batch: G9711	
Endosulfan sulfate EPA 608	< 0.10	0.10	ug/l	
	Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1757 by 306	Batch: G9711	
Endrin EPA 608	< 0.020	0.020	ug/l	
	Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1757 by 306	Batch: G9711	
Endrin aldehyde EPA 608	< 0.10	0.10	ug/l	
	Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1757 by 306	Batch: G9711	
gamma-BHC EPA 608	< 0.050	0.050	ug/l	
	Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1757 by 306	Batch: G9711	
Heptachlor EPA 608	< 0.010	0.010	ug/l	
	Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1757 by 306	Batch: G9711	
Heptachlor epoxide EPA 608	< 0.010	0.010	ug/l	
	Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1757 by 306	Batch: G9711	
PCB 1016 EPA 608	< 0.20	0.20	ug/l	
	Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1757 by 306	Batch: G9711	
PCB 1221 EPA 608	< 0.20	0.20	ug/l	
	Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1757 by 306	Batch: G9711	
PCB 1232 EPA 608	< 0.20	0.20	ug/l	
	Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1757 by 306	Batch: G9711	
PCB 1242 EPA 608	< 0.20	0.20	ug/l	
	Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1757 by 306	Batch: G9711	
PCB 1248 EPA 608	< 0.20	0.20	ug/l	
	Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1757 by 306	Batch: G9711	
PCB 1254 EPA 608	< 0.20	0.20	ug/l	
	Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1757 by 306	Batch: G9711	
PCB 1260 EPA 608	< 0.20	0.20	ug/l	
	Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1757 by 306	Batch: G9711	

Central Arkansas Water
 338 Pleasant Valley Drive
 Little Rock, AR 72212

ANALYTICAL RESULTS
AIC No. 178490-1 (Continued)
Sample Identification: 03335 5-12-2014 @ 1132

Analyte	Result	RL	Units	Qualifier
Organochlorine Pesticides and PCBs By EPA 608 (Continued)				
Toxaphene EPA 608	< 0.30	0.30	ug/l	
Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1757 by 306		Batch: G9711	
Surrogate: Decachlorobiphenyl (30.0-135%) EPA 608	96.8		%	
Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1757 by 306		Batch: G9711	
Surrogate: Tetrachloro-m-xylene (25.0-140%) EPA 608	100		%	
Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1757 by 306		Batch: G9711	

AIC No. 178490-2
Sample Identification: 02215 5-12-2014 @ 1155

Analyte	Result	RL	Units	Qualifier
Total Recoverable Phenolics				
EPA 420.1	11	5	ug/l	
Prep: 13-May-2014 0831 by 308	Analyzed: 13-May-2014 1215 by 308		Batch: W47676	
Chromium, Hexavalent				
SM 3500-Cr B 2009	< 10	10	ug/l	
Prep: 13-May-2014 1420 by 308	Analyzed: 13-May-2014 1530 by 308		Batch: W47688	
Total Cyanide				
SM 4500-CN C,E 1999	< 10	10	ug/l	
Prep: 13-May-2014 0905 by 308	Analyzed: 13-May-2014 1555 by 308		Batch: W47679	
Mercury, low level				
EPA 245.7	< 0.0050	0.0050	ug/l	
Prep: 16-May-2014 0909 by 311	Analyzed: 16-May-2014 1122 by 311		Batch: S36804	
Total Recoverable Antimony				
EPA 200.8	< 60	60	ug/l	
Prep: 13-May-2014 1341 by 285	Analyzed: 14-May-2014 1824 by 305		Batch: S36787	
Total Recoverable Arsenic				
EPA 200.8	< 0.5	0.5	ug/l	
Prep: 13-May-2014 1341 by 285	Analyzed: 14-May-2014 1824 by 305		Batch: S36787	
Total Recoverable Beryllium				
EPA 200.8	< 0.5	0.5	ug/l	
Prep: 13-May-2014 1341 by 285	Analyzed: 14-May-2014 1824 by 305		Batch: S36787	
Total Recoverable Cadmium				
EPA 200.8	< 0.5	0.5	ug/l	
Prep: 13-May-2014 1341 by 285	Analyzed: 14-May-2014 1824 by 305		Batch: S36787	
Total Recoverable Chromium				
EPA 200.8	< 10	10	ug/l	
Prep: 13-May-2014 1341 by 285	Analyzed: 14-May-2014 1824 by 305		Batch: S36787	
Total Recoverable Copper				
EPA 200.8	1.1	0.5	ug/l	
Prep: 13-May-2014 1341 by 285	Analyzed: 14-May-2014 1824 by 305		Batch: S36787	
Total Recoverable Lead				
EPA 200.8	< 0.5	0.5	ug/l	
Prep: 13-May-2014 1341 by 285	Analyzed: 14-May-2014 1824 by 305		Batch: S36787	
Total Recoverable Nickel				
EPA 200.8	< 0.5	0.5	ug/l	
Prep: 13-May-2014 1341 by 285	Analyzed: 14-May-2014 1824 by 305		Batch: S36787	
Total Recoverable Selenium				
EPA 200.8	< 5	5	ug/l	
Prep: 13-May-2014 1341 by 285	Analyzed: 14-May-2014 1824 by 305		Batch: S36787	
Total Recoverable Silver				
EPA 200.8	< 0.5	0.5	ug/l	
Prep: 13-May-2014 1341 by 285	Analyzed: 14-May-2014 1824 by 305		Batch: S36787	

Central Arkansas Water
338 Pleasant Valley Drive
Little Rock, AR 72212

ANALYTICAL RESULTS

AIC No. 178490-2 (Continued)

Sample Identification: 02215 5-12-2014 @ 1155

Analyte	Result	RL	Units	Qualifier
Total Recoverable Thallium EPA 200.8	< 0.5	0.5	ug/l	
Prep: 13-May-2014 1341 by 285	Analyzed: 14-May-2014 1824 by 305		Batch: S36787	
Total Recoverable Zinc EPA 200.8	25	20	ug/l	
Prep: 13-May-2014 1341 by 285	Analyzed: 14-May-2014 1824 by 305		Batch: S36787	
Base/Neutral and Acid Compounds By EPA 625				
Acenaphthene EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2054 by 301		Batch: B8961	
Acenaphthylene EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2054 by 301		Batch: B8961	
Anthracene EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2054 by 301		Batch: B8961	
Benzidine EPA 625	< 50	50	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2054 by 301		Batch: B8961	
Benzo(a)anthracene EPA 625	< 5.0	5.0	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2054 by 301		Batch: B8961	
Benzo(a)pyrene EPA 625	< 5.0	5.0	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2054 by 301		Batch: B8961	
Benzo(g,h,i)perylene EPA 625	< 20	20	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2054 by 301		Batch: B8961	
Benzo(k)fluoranthene EPA 625	< 5.0	5.0	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2054 by 301		Batch: B8961	
3,4-Benzofluoranthene EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2054 by 301		Batch: B8961	
Bis(2-chloroethoxy)methane EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2054 by 301		Batch: B8961	
Bis(2-chloroethyl)ether EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2054 by 301		Batch: B8961	
Bis(2-chloroisopropyl)ether EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2054 by 301		Batch: B8961	
Bis(2-ethylhexyl)phthalate EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2054 by 301		Batch: B8961	
4-Bromophenyl phenyl ether EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2054 by 301		Batch: B8961	
Butylbenzyl phthalate EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2054 by 301		Batch: B8961	
2-Chloronaphthalene EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2054 by 301		Batch: B8961	
2-Chlorophenol EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2054 by 301		Batch: B8961	

Central Arkansas Water
 338 Pleasant Valley Drive
 Little Rock, AR 72212

ANALYTICAL RESULTS
AIC No. 178490-2 (Continued)
Sample Identification: 02215 5-12-2014 @ 1155

Analyte	Result	RL	Units	Qualifier
Base/Neutral and Acid Compounds By EPA 625 (Continued)				
4-Chlorophenyl phenyl ether EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2054 by 301		Batch: B8961	
Chrysene EPA 625	< 5.0	5.0	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2054 by 301		Batch: B8961	
Di-n-butyl phthalate EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2054 by 301		Batch: B8961	
Di-n-octyl phthalate EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2054 by 301		Batch: B8961	
Dibenz(a,h)anthracene EPA 625	< 5.0	5.0	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2054 by 301		Batch: B8961	
3,3'-Dichlorobenzidine EPA 625	< 5.0	5.0	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2054 by 301		Batch: B8961	
2,4-Dichlorophenol EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2054 by 301		Batch: B8961	
Diethyl phthalate EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2054 by 301		Batch: B8961	
Dimethyl phthalate EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2054 by 301		Batch: B8961	
2,4-Dimethylphenol EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2054 by 301		Batch: B8961	
4,6-Dinitro-o-cresol EPA 625	< 50	50	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2054 by 301		Batch: B8961	
2,4-Dinitrophenol EPA 625	< 50	50	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2054 by 301		Batch: B8961	
2,4-Dinitrotoluene EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2054 by 301		Batch: B8961	
2,6-Dinitrotoluene EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2054 by 301		Batch: B8961	
1,2-Diphenylhydrazine EPA 625	< 20	20	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2054 by 301		Batch: B8961	
Fluorene EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2054 by 301		Batch: B8961	
Hexachlorobenzene EPA 625	< 5.0	5.0	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2054 by 301		Batch: B8961	
Hexachlorobutadiene EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2054 by 301		Batch: B8961	
Hexachlorocyclopentadiene EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2054 by 301		Batch: B8961	

Central Arkansas Water
 338 Pleasant Valley Drive
 Little Rock, AR 72212

ANALYTICAL RESULTS
AIC No. 178490-2 (Continued)
Sample Identification: 02215 5-12-2014 @ 1155

Analyte	Result	RL	Units	Qualifier
Base/Neutral and Acid Compounds By EPA 625 (Continued)				
Hexachloroethane EPA 625	Prep: 14-May-2014 1438 by 306 Analyzed: 14-May-2014 2054 by 301	< 20 20	ug/l	
Indeno(1,2,3-cd)pyrene EPA 625	Prep: 14-May-2014 1438 by 306 Analyzed: 14-May-2014 2054 by 301	< 5.0 5.0	ug/l	
Isophorone EPA 625	Prep: 14-May-2014 1438 by 306 Analyzed: 14-May-2014 2054 by 301	< 10 10	ug/l	
n-Nitrosodi-n-propylamine EPA 625	Prep: 14-May-2014 1438 by 306 Analyzed: 14-May-2014 2054 by 301	< 20 20	ug/l	
n-Nitrosodimethylamine EPA 625	Prep: 14-May-2014 1438 by 306 Analyzed: 14-May-2014 2054 by 301	< 50 50	ug/l	
n-Nitrosodiphenylamine EPA 625	Prep: 14-May-2014 1438 by 306 Analyzed: 14-May-2014 2054 by 301	< 20 20	ug/l	R
Naphthalene EPA 625	Prep: 14-May-2014 1438 by 306 Analyzed: 14-May-2014 2054 by 301	< 10 10	ug/l	
Nitrobenzene EPA 625	Prep: 14-May-2014 1438 by 306 Analyzed: 14-May-2014 2054 by 301	< 10 10	ug/l	
2-Nitrophenol EPA 625	Prep: 14-May-2014 1438 by 306 Analyzed: 14-May-2014 2054 by 301	< 20 20	ug/l	
4-Nitrophenol EPA 625	Prep: 14-May-2014 1438 by 306 Analyzed: 14-May-2014 2054 by 301	< 50 50	ug/l	
p-Chloro-m-cresol EPA 625	Prep: 14-May-2014 1438 by 306 Analyzed: 14-May-2014 2054 by 301	< 10 10	ug/l	
Pentachlorophenol EPA 625	Prep: 14-May-2014 1438 by 306 Analyzed: 14-May-2014 2054 by 301	< 5.0 5.0	ug/l	
Phenanthrene EPA 625	Prep: 14-May-2014 1438 by 306 Analyzed: 14-May-2014 2054 by 301	< 10 10	ug/l	
Phenol EPA 625	Prep: 14-May-2014 1438 by 306 Analyzed: 14-May-2014 2054 by 301	< 10 10	ug/l	
Pyrene EPA 625	Prep: 14-May-2014 1438 by 306 Analyzed: 14-May-2014 2054 by 301	< 10 10	ug/l	
1,2,4-Trichlorobenzene EPA 625	Prep: 14-May-2014 1438 by 306 Analyzed: 14-May-2014 2054 by 301	< 10 10	ug/l	
2,4,6-Trichlorophenol EPA 625	Prep: 14-May-2014 1438 by 306 Analyzed: 14-May-2014 2054 by 301	< 10 10	ug/l	
Surrogate: 2-Fluorobiphenyl (50.0-110%) EPA 625	Prep: 14-May-2014 1438 by 306 Analyzed: 14-May-2014 2054 by 301	83.9	%	
Surrogate: 2-Fluorophenol (20.0-110%) EPA 625	Prep: 14-May-2014 1438 by 306 Analyzed: 14-May-2014 2054 by 301	58.6	%	

Central Arkansas Water
 338 Pleasant Valley Drive
 Little Rock, AR 72212

ANALYTICAL RESULTS
AIC No. 178490-2 (Continued)
Sample Identification: 02215 5-12-2014 @ 1155

Analyte	Result	RL	Units	Qualifier
Base/Neutral and Acid Compounds By EPA 625 (Continued)				
Surrogate: Nitrobenzene-D5 (40.0-110%) EPA 625	82.3		%	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2054 by 301		Batch: B8961	
Surrogate: Terphenyl-D14 (50.0-135%) EPA 625	86.2		%	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2054 by 301		Batch: B8961	
Surrogate: 2,4,6-Tribromophenol (40.0-125%) EPA 625	48.6		%	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2054 by 301		Batch: B8961	
Volatile Organic Compounds By EPA 624				
Acrolein EPA 624	< 50	50	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1807 by 301		Batch: V8517	
Acrylonitrile EPA 624	< 20	20	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1807 by 301		Batch: V8517	
Benzene EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1807 by 301		Batch: V8517	
Bromoform EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1807 by 301		Batch: V8517	
Carbon tetrachloride EPA 624	< 2.0	2.0	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1807 by 301		Batch: V8517	
Chlorobenzene EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1807 by 301		Batch: V8517	
Chlorodibromomethane EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1807 by 301		Batch: V8517	
Chloroethane EPA 624	< 50	50	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1807 by 301		Batch: V8517	
2-Chloroethyl vinyl ether EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1807 by 301		Batch: V8517	
Chloroform EPA 624	47	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1807 by 301		Batch: V8517	
1,2-Dichlorobenzene EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1807 by 301		Batch: V8517	
1,3-Dichlorobenzene EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1807 by 301		Batch: V8517	
1,4-Dichlorobenzene EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1807 by 301		Batch: V8517	
Dichlorobromomethane EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1807 by 301		Batch: V8517	
1,1-Dichloroethane EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1807 by 301		Batch: V8517	
1,2-Dichloroethane EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1807 by 301		Batch: V8517	

Central Arkansas Water
338 Pleasant Valley Drive
Little Rock, AR 72212

ANALYTICAL RESULTS

AIC No. 178490-2 (Continued)

Sample Identification: 02215 5-12-2014 @ 1155

Analyte	Result	RL	Units	Qualifier
Volatile Organic Compounds By EPA 624 (Continued)				
1,1-Dichloroethylene EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1807 by 301		Batch: V8517	
trans-1,2-Dichloroethylene EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1807 by 301		Batch: V8517	
1,2-Dichloropropane EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1807 by 301		Batch: V8517	
1,3-Dichloropropylene EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1807 by 301		Batch: V8517	
Ethylbenzene EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1807 by 301		Batch: V8517	
Methyl bromide(Bromomethane) EPA 624	< 50	50	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1807 by 301		Batch: V8517	
Methyl chloride(Chloromethane) EPA 624	< 50	50	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1807 by 301		Batch: V8517	
Methylene chloride EPA 624	< 20	20	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1807 by 301		Batch: V8517	
1,1,2,2-Tetrachloroethane EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1807 by 301		Batch: V8517	
Tetrachloroethylene EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1807 by 301		Batch: V8517	
Toluene EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1807 by 301		Batch: V8517	
1,1,1-Trichloroethane EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1807 by 301		Batch: V8517	
1,1,2-Trichloroethane EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1807 by 301		Batch: V8517	
Trichloroethylene EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1807 by 301		Batch: V8517	
Vinyl chloride EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1807 by 301		Batch: V8517	
Surrogate: 4-Bromofluorobenzene (75.0-120%) EPA 624	93.5		%	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1807 by 301		Batch: V8517	
Surrogate: Dibromofluoromethane (85.0-115%) EPA 624	108		%	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1807 by 301		Batch: V8517	
Surrogate: Toluene-D8 (85.0-120%) EPA 624	98.1		%	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1807 by 301		Batch: V8517	
Organochlorine Pesticides and PCBs By EPA 608				
Aldrin EPA 608	< 0.010	0.010	ug/l	
Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1809 by 306		Batch: G9711	

Central Arkansas Water
338 Pleasant Valley Drive
Little Rock, AR 72212

ANALYTICAL RESULTS

AIC No. 178490-2 (Continued)

Sample Identification: 02215 5-12-2014 @ 1155

Analyte	Result	RL	Units	Qualifier
Organochlorine Pesticides and PCBs By EPA 608 (Continued)				
alpha-BHC EPA 608	Prep: 14-May-2014 1153 by 306 Analyzed: 14-May-2014 1809 by 306	< 0.050 0.050	ug/l Batch: G9711	
alpha-Endosulfan EPA 608	Prep: 14-May-2014 1153 by 306 Analyzed: 14-May-2014 1809 by 306	< 0.010 0.010	ug/l Batch: G9711	
beta-BHC EPA 608	Prep: 14-May-2014 1153 by 306 Analyzed: 14-May-2014 1809 by 306	< 0.050 0.050	ug/l Batch: G9711	
beta-Endosulfan EPA 608	Prep: 14-May-2014 1153 by 306 Analyzed: 14-May-2014 1809 by 306	< 0.020 0.020	ug/l Batch: G9711	
Chlordane EPA 608	Prep: 14-May-2014 1153 by 306 Analyzed: 14-May-2014 1809 by 306	< 0.20 0.20	ug/l Batch: G9711	
Chlorpyrifos EPA 608	Prep: 14-May-2014 1153 by 306 Analyzed: 14-May-2014 1809 by 306	< 0.070 0.070	ug/l Batch: G9711	
4,4'-DDD EPA 608	Prep: 14-May-2014 1153 by 306 Analyzed: 14-May-2014 1809 by 306	< 0.10 0.10	ug/l Batch: G9711	
4,4'-DDE EPA 608	Prep: 14-May-2014 1153 by 306 Analyzed: 14-May-2014 1809 by 306	< 0.10 0.10	ug/l Batch: G9711	
4,4'-DDT EPA 608	Prep: 14-May-2014 1153 by 306 Analyzed: 14-May-2014 1809 by 306	< 0.020 0.020	ug/l Batch: G9711	
delta-BHC EPA 608	Prep: 14-May-2014 1153 by 306 Analyzed: 14-May-2014 1809 by 306	< 0.050 0.050	ug/l Batch: G9711	
Dieldrin EPA 608	Prep: 14-May-2014 1153 by 306 Analyzed: 14-May-2014 1809 by 306	< 0.020 0.020	ug/l Batch: G9711	
Endosulfan sulfate EPA 608	Prep: 14-May-2014 1153 by 306 Analyzed: 14-May-2014 1809 by 306	< 0.10 0.10	ug/l Batch: G9711	
Endrin EPA 608	Prep: 14-May-2014 1153 by 306 Analyzed: 14-May-2014 1809 by 306	< 0.020 0.020	ug/l Batch: G9711	
Endrin aldehyde EPA 608	Prep: 14-May-2014 1153 by 306 Analyzed: 14-May-2014 1809 by 306	< 0.10 0.10	ug/l Batch: G9711	
gamma-BHC EPA 608	Prep: 14-May-2014 1153 by 306 Analyzed: 14-May-2014 1809 by 306	< 0.050 0.050	ug/l Batch: G9711	
Heptachlor EPA 608	Prep: 14-May-2014 1153 by 306 Analyzed: 14-May-2014 1809 by 306	< 0.010 0.010	ug/l Batch: G9711	
Heptachlor epoxide EPA 608	Prep: 14-May-2014 1153 by 306 Analyzed: 14-May-2014 1809 by 306	< 0.010 0.010	ug/l Batch: G9711	
PCB 1016 EPA 608	Prep: 14-May-2014 1153 by 306 Analyzed: 14-May-2014 1809 by 306	< 0.20 0.20	ug/l Batch: G9711	
PCB 1221 EPA 608	Prep: 14-May-2014 1153 by 306 Analyzed: 14-May-2014 1809 by 306	< 0.20 0.20	ug/l Batch: G9711	

Central Arkansas Water
338 Pleasant Valley Drive
Little Rock, AR 72212

ANALYTICAL RESULTS

AIC No. 178490-2 (Continued)

Sample Identification: 02215 5-12-2014 @ 1155

Analyte	Result	RL	Units	Qualifier
Organochlorine Pesticides and PCBs By EPA 608 (Continued)				
PCB 1232 EPA 608	< 0.20	0.20	ug/l	
Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1809 by 306		Batch: G9711	
PCB 1242 EPA 608	< 0.20	0.20	ug/l	
Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1809 by 306		Batch: G9711	
PCB 1248 EPA 608	< 0.20	0.20	ug/l	
Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1809 by 306		Batch: G9711	
PCB 1254 EPA 608	< 0.20	0.20	ug/l	
Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1809 by 306		Batch: G9711	
PCB 1260 EPA 608	< 0.20	0.20	ug/l	
Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1809 by 306		Batch: G9711	
Toxaphene EPA 608	< 0.30	0.30	ug/l	
Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1809 by 306		Batch: G9711	
Surrogate: Decachlorobiphenyl (30.0-135%) EPA 608	104		%	
Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1809 by 306		Batch: G9711	
Surrogate: Tetrachloro-m-xylene (25.0-140%) EPA 608	113		%	
Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1809 by 306		Batch: G9711	

AIC No. 178490-3

Sample Identification: 13263 5-12-2014 @ 1308

Analyte	Result	RL	Units	Qualifier
Total Recoverable Phenolics				
EPA 420.1	7.7	5	ug/l	
Prep: 13-May-2014 0831 by 308	Analyzed: 13-May-2014 1215 by 308		Batch: W47676	
Chromium, Hexavalent				
SM 3500-Cr B 2009	< 10	10	ug/l	
Prep: 13-May-2014 1420 by 308	Analyzed: 13-May-2014 1530 by 308		Batch: W47688	
Total Cyanide				
SM 4500-CN C,E 1999	< 10	10	ug/l	
Prep: 13-May-2014 0905 by 308	Analyzed: 13-May-2014 1556 by 308		Batch: W47679	
Mercury, low level				
EPA 245.7	< 0.0050	0.0050	ug/l	
Prep: 16-May-2014 0909 by 311	Analyzed: 16-May-2014 1137 by 311		Batch: S36804	
Total Recoverable Antimony				
EPA 200.8	< 60	60	ug/l	
Prep: 13-May-2014 1341 by 285	Analyzed: 14-May-2014 1829 by 305		Batch: S36787	
Total Recoverable Arsenic				
EPA 200.8	< 0.5	0.5	ug/l	
Prep: 13-May-2014 1341 by 285	Analyzed: 14-May-2014 1829 by 305		Batch: S36787	
Total Recoverable Beryllium				
EPA 200.8	< 0.5	0.5	ug/l	
Prep: 13-May-2014 1341 by 285	Analyzed: 14-May-2014 1829 by 305		Batch: S36787	
Total Recoverable Cadmium				
EPA 200.8	< 0.5	0.5	ug/l	
Prep: 13-May-2014 1341 by 285	Analyzed: 14-May-2014 1829 by 305		Batch: S36787	
Total Recoverable Chromium				
EPA 200.8	< 10	10	ug/l	
Prep: 13-May-2014 1341 by 285	Analyzed: 14-May-2014 1829 by 305		Batch: S36787	

Central Arkansas Water
 338 Pleasant Valley Drive
 Little Rock, AR 72212

ANALYTICAL RESULTS
AIC No. 178490-3 (Continued)
Sample Identification: 13263 5-12-2014 @ 1308

Analyte		Result	RL	Units	Qualifier
Total Recoverable Copper		1.7	0.5	ug/l	
EPA 200.8	Prep: 13-May-2014 1341 by 285	Analyzed: 14-May-2014 1829 by 305		Batch: S36787	
Total Recoverable Lead		< 0.5	0.5	ug/l	
EPA 200.8	Prep: 13-May-2014 1341 by 285	Analyzed: 14-May-2014 1829 by 305		Batch: S36787	
Total Recoverable Nickel		0.69	0.5	ug/l	
EPA 200.8	Prep: 13-May-2014 1341 by 285	Analyzed: 14-May-2014 1829 by 305		Batch: S36787	
Total Recoverable Selenium		< 5	5	ug/l	
EPA 200.8	Prep: 13-May-2014 1341 by 285	Analyzed: 14-May-2014 1829 by 305		Batch: S36787	
Total Recoverable Silver		< 0.5	0.5	ug/l	
EPA 200.8	Prep: 13-May-2014 1341 by 285	Analyzed: 14-May-2014 1829 by 305		Batch: S36787	
Total Recoverable Thallium		< 0.5	0.5	ug/l	
EPA 200.8	Prep: 13-May-2014 1341 by 285	Analyzed: 14-May-2014 1829 by 305		Batch: S36787	
Total Recoverable Zinc		100	20	ug/l	
EPA 200.8	Prep: 13-May-2014 1341 by 285	Analyzed: 14-May-2014 1829 by 305		Batch: S36787	
Base/Neutral and Acid Compounds By EPA 625					
Acenaphthene		< 10	10	ug/l	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
Acenaphthylene		< 10	10	ug/l	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
Anthracene		< 10	10	ug/l	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
Benzidine		< 50	50	ug/l	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
Benzo(a)anthracene		< 5.0	5.0	ug/l	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
Benzo(a)pyrene		< 5.0	5.0	ug/l	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
Benzo(g,h,i)perylene		< 20	20	ug/l	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
Benzo(k)fluoranthene		< 5.0	5.0	ug/l	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
3,4-Benzofluoranthene		< 10	10	ug/l	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
Bis(2-chloroethoxy)methane		< 10	10	ug/l	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
Bis(2-chloroethyl)ether		< 10	10	ug/l	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
Bis(2-chloroisopropyl)ether		< 10	10	ug/l	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	

Central Arkansas Water
 338 Pleasant Valley Drive
 Little Rock, AR 72212

ANALYTICAL RESULTS
AIC No. 178490-3 (Continued)
Sample Identification: 13263 5-12-2014 @ 1308

Analyte	Result	RL	Units	Qualifier
Base/Neutral and Acid Compounds By EPA 625 (Continued)				
Bis(2-ethylhexyl)phthalate EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
4-Bromophenyl phenyl ether EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
Butylbenzyl phthalate EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
2-Chloronaphthalene EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
2-Chlorophenol EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
4-Chlorophenyl phenyl ether EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
Chrysene EPA 625	< 5.0	5.0	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
Di-n-butyl phthalate EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
Di-n-octyl phthalate EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
Dibenz(a,h)anthracene EPA 625	< 5.0	5.0	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
3,3'-Dichlorobenzidine EPA 625	< 5.0	5.0	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
2,4-Dichlorophenol EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
Diethyl phthalate EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
Dimethyl phthalate EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
2,4-Dimethylphenol EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
4,6-Dinitro-o-cresol EPA 625	< 50	50	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
2,4-Dinitrophenol EPA 625	< 50	50	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
2,4-Dinitrotoluene EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
2,6-Dinitrotoluene EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	

Central Arkansas Water
 338 Pleasant Valley Drive
 Little Rock, AR 72212

ANALYTICAL RESULTS
AIC No. 178490-3 (Continued)
Sample Identification: 13263 5-12-2014 @ 1308

Analyte		Result	RL	Units	Qualifier
Base/Neutral and Acid Compounds By EPA 625 (Continued)					
1,2-Diphenylhydrazine		< 20	20	ug/l	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
Fluorene		< 10	10	ug/l	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
Hexachlorobenzene		< 5.0	5.0	ug/l	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
Hexachlorobutadiene		< 10	10	ug/l	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
Hexachlorocyclopentadiene		< 10	10	ug/l	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
Hexachloroethane		< 20	20	ug/l	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
Indeno(1,2,3-cd)pyrene		< 5.0	5.0	ug/l	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
Isophorone		< 10	10	ug/l	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
n-Nitrosodi-n-propylamine		< 20	20	ug/l	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
n-Nitrosodimethylamine		< 50	50	ug/l	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
n-Nitrosodiphenylamine		< 20	20	ug/l	R
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
Naphthalene		< 10	10	ug/l	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
Nitrobenzene		< 10	10	ug/l	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
2-Nitrophenol		< 20	20	ug/l	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
4-Nitrophenol		< 50	50	ug/l	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
p-Chloro-m-cresol		< 10	10	ug/l	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
Pentachlorophenol		< 5.0	5.0	ug/l	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
Phenanthrene		< 10	10	ug/l	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
Phenol		< 10	10	ug/l	
EPA 625	Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	

Central Arkansas Water
 338 Pleasant Valley Drive
 Little Rock, AR 72212

ANALYTICAL RESULTS
AIC No. 178490-3 (Continued)
Sample Identification: 13263 5-12-2014 @ 1308

Analyte	Result	RL	Units	Qualifier
Base/Neutral and Acid Compounds By EPA 625 (Continued)				
Pyrene EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
1,2,4-Trichlorobenzene EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
2,4,6-Trichlorophenol EPA 625	< 10	10	ug/l	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
Surrogate: 2-Fluorobiphenyl (50.0-110%) EPA 625	81.9		%	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
Surrogate: 2-Fluorophenol (20.0-110%) EPA 625	52.0		%	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
Surrogate: Nitrobenzene-D5 (40.0-110%) EPA 625	80.3		%	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
Surrogate: Terphenyl-D14 (50.0-135%) EPA 625	93.4		%	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
Surrogate: 2,4,6-Tribromophenol (40.0-125%) EPA 625	41.0		%	
Prep: 14-May-2014 1438 by 306	Analyzed: 14-May-2014 2131 by 301		Batch: B8961	
Volatile Organic Compounds By EPA 624				
Acrolein EPA 624	< 50	50	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1847 by 301		Batch: V8517	
Acrylonitrile EPA 624	< 20	20	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1847 by 301		Batch: V8517	
Benzene EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1847 by 301		Batch: V8517	
Bromoform EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1847 by 301		Batch: V8517	
Carbon tetrachloride EPA 624	< 2.0	2.0	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1847 by 301		Batch: V8517	
Chlorobenzene EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1847 by 301		Batch: V8517	
Chlorodibromomethane EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1847 by 301		Batch: V8517	
Chloroethane EPA 624	< 50	50	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1847 by 301		Batch: V8517	
2-Chloroethyl vinyl ether EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1847 by 301		Batch: V8517	
Chloroform EPA 624	24	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1847 by 301		Batch: V8517	
1,2-Dichlorobenzene EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1847 by 301		Batch: V8517	

Central Arkansas Water
 338 Pleasant Valley Drive
 Little Rock, AR 72212

ANALYTICAL RESULTS
AIC No. 178490-3 (Continued)
Sample Identification: 13263 5-12-2014 @ 1308

Analyte	Result	RL	Units	Qualifier
Volatile Organic Compounds By EPA 624 (Continued)				
1,3-Dichlorobenzene EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1847 by 301		Batch: V8517	
1,4-Dichlorobenzene EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1847 by 301		Batch: V8517	
Dichlorobromomethane EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1847 by 301		Batch: V8517	
1,1-Dichloroethane EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1847 by 301		Batch: V8517	
1,2-Dichloroethane EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1847 by 301		Batch: V8517	
1,1-Dichloroethylene EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1847 by 301		Batch: V8517	
trans-1,2-Dichloroethylene EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1847 by 301		Batch: V8517	
1,2-Dichloropropane EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1847 by 301		Batch: V8517	
1,3-Dichloropropylene EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1847 by 301		Batch: V8517	
Ethylbenzene EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1847 by 301		Batch: V8517	
Methyl bromide(Bromomethane) EPA 624	< 50	50	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1847 by 301		Batch: V8517	
Methyl chloride(Chloromethane) EPA 624	< 50	50	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1847 by 301		Batch: V8517	
Methylene chloride EPA 624	< 20	20	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1847 by 301		Batch: V8517	
1,1,2,2-Tetrachloroethane EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1847 by 301		Batch: V8517	
Tetrachloroethylene EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1847 by 301		Batch: V8517	
Toluene EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1847 by 301		Batch: V8517	
1,1,1-Trichloroethane EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1847 by 301		Batch: V8517	
1,1,2-Trichloroethane EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1847 by 301		Batch: V8517	
Trichloroethylene EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1847 by 301		Batch: V8517	

Central Arkansas Water
338 Pleasant Valley Drive
Little Rock, AR 72212

ANALYTICAL RESULTS

AIC No. 178490-3 (Continued)

Sample Identification: 13263 5-12-2014 @ 1308

Analyte	Result	RL	Units	Qualifier
Volatile Organic Compounds By EPA 624 (Continued)				
Vinyl chloride EPA 624	< 10	10	ug/l	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1847 by 301		Batch: V8517	
Surrogate: 4-Bromofluorobenzene (75.0-120%) EPA 624	94.7		%	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1847 by 301		Batch: V8517	
Surrogate: Dibromofluoromethane (85.0-115%) EPA 624	107		%	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1847 by 301		Batch: V8517	
Surrogate: Toluene-D8 (85.0-120%) EPA 624	99.6		%	
Prep: 13-May-2014 1031 by 301	Analyzed: 13-May-2014 1847 by 301		Batch: V8517	
Organochlorine Pesticides and PCBs By EPA 608				
Aldrin EPA 608	< 0.010	0.010	ug/l	
Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1821 by 306		Batch: G9711	
alpha-BHC EPA 608	< 0.050	0.050	ug/l	
Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1821 by 306		Batch: G9711	
alpha-Endosulfan EPA 608	< 0.010	0.010	ug/l	
Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1821 by 306		Batch: G9711	
beta-BHC EPA 608	< 0.050	0.050	ug/l	
Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1821 by 306		Batch: G9711	
beta-Endosulfan EPA 608	< 0.020	0.020	ug/l	
Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1821 by 306		Batch: G9711	
Chlordane EPA 608	< 0.20	0.20	ug/l	
Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1821 by 306		Batch: G9711	
Chlorpyrifos EPA 608	< 0.070	0.070	ug/l	
Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1821 by 306		Batch: G9711	
4,4'-DDD EPA 608	< 0.10	0.10	ug/l	
Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1821 by 306		Batch: G9711	
4,4'-DDE EPA 608	< 0.10	0.10	ug/l	
Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1821 by 306		Batch: G9711	
4,4'-DDT EPA 608	< 0.020	0.020	ug/l	
Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1821 by 306		Batch: G9711	
delta-BHC EPA 608	< 0.050	0.050	ug/l	
Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1821 by 306		Batch: G9711	
Dieldrin EPA 608	< 0.020	0.020	ug/l	
Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1821 by 306		Batch: G9711	
Endosulfan sulfate EPA 608	< 0.10	0.10	ug/l	
Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1821 by 306		Batch: G9711	
Endrin EPA 608	< 0.020	0.020	ug/l	
Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1821 by 306		Batch: G9711	
Endrin aldehyde EPA 608	< 0.10	0.10	ug/l	
Prep: 14-May-2014 1153 by 306	Analyzed: 14-May-2014 1821 by 306		Batch: G9711	

Central Arkansas Water
338 Pleasant Valley Drive
Little Rock, AR 72212

ANALYTICAL RESULTS

AIC No. 178490-3 (Continued)

Sample Identification: 13263 5-12-2014 @ 1308

Analyte	Result	RL	Units	Qualifier
Organochlorine Pesticides and PCBs By EPA 608 (Continued)				
gamma-BHC EPA 608	Prep: 14-May-2014 1153 by 306 Analyzed: 14-May-2014 1821 by 306	< 0.050 0.050	ug/l	Batch: G9711
Heptachlor EPA 608	Prep: 14-May-2014 1153 by 306 Analyzed: 14-May-2014 1821 by 306	< 0.010 0.010	ug/l	Batch: G9711
Heptachlor epoxide EPA 608	Prep: 14-May-2014 1153 by 306 Analyzed: 14-May-2014 1821 by 306	< 0.010 0.010	ug/l	Batch: G9711
PCB 1016 EPA 608	Prep: 14-May-2014 1153 by 306 Analyzed: 14-May-2014 1821 by 306	< 0.20 0.20	ug/l	Batch: G9711
PCB 1221 EPA 608	Prep: 14-May-2014 1153 by 306 Analyzed: 14-May-2014 1821 by 306	< 0.20 0.20	ug/l	Batch: G9711
PCB 1232 EPA 608	Prep: 14-May-2014 1153 by 306 Analyzed: 14-May-2014 1821 by 306	< 0.20 0.20	ug/l	Batch: G9711
PCB 1242 EPA 608	Prep: 14-May-2014 1153 by 306 Analyzed: 14-May-2014 1821 by 306	< 0.20 0.20	ug/l	Batch: G9711
PCB 1248 EPA 608	Prep: 14-May-2014 1153 by 306 Analyzed: 14-May-2014 1821 by 306	< 0.20 0.20	ug/l	Batch: G9711
PCB 1254 EPA 608	Prep: 14-May-2014 1153 by 306 Analyzed: 14-May-2014 1821 by 306	< 0.20 0.20	ug/l	Batch: G9711
PCB 1260 EPA 608	Prep: 14-May-2014 1153 by 306 Analyzed: 14-May-2014 1821 by 306	< 0.20 0.20	ug/l	Batch: G9711
Toxaphene EPA 608	Prep: 14-May-2014 1153 by 306 Analyzed: 14-May-2014 1821 by 306	< 0.30 0.30	ug/l	Batch: G9711
Surrogate: Decachlorobiphenyl (30.0-135%) EPA 608	Prep: 14-May-2014 1153 by 306 Analyzed: 14-May-2014 1821 by 306	105	%	Batch: G9711
Surrogate: Tetrachloro-m-xylene (25.0-140%) EPA 608	Prep: 14-May-2014 1153 by 306 Analyzed: 14-May-2014 1821 by 306	111	%	Batch: G9711

Central Arkansas Water
 338 Pleasant Valley Drive
 Little Rock, AR 72212

DUPLICATE RESULTS

Analyte	AIC No.	Result	RPD	RPD Limit	Preparation Date	Analysis Date	Dil	Qual
Base/Neutral and Acid Compounds								
Acenaphthene	178490-1	< 10 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961 Duplicate	< 10 ug/l	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
Acenaphthylene	178490-1	< 10 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961 Duplicate	< 10 ug/l	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
Anthracene	178490-1	< 10 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961 Duplicate	< 10 ug/l	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
Benzidine	178490-1	< 50 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961 Duplicate	< 50 ug/l	0.00	0.00	14May14 1439 by 306	14May14 1901 by 301		
Benzo(a)anthracene	178490-1	< 5.0 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961 Duplicate	< 5.0 ug/l	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
Benzo(a)pyrene	178490-1	< 5.0 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961 Duplicate	< 5.0 ug/l	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
Benzo(g,h,i)perylene	178490-1	< 20 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961 Duplicate	< 20 ug/l	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
Benzo(k)fluoranthene	178490-1	< 5.0 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961 Duplicate	< 5.0 ug/l	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
3,4-Benzofluoranthene	178490-1	< 10 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961 Duplicate	< 10 ug/l	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
Bis(2-chloroethoxy)methane	178490-1	< 10 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961 Duplicate	< 10 ug/l	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
Bis(2-chloroethyl)ether	178490-1	< 10 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961 Duplicate	< 10 ug/l	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
Bis(2-chloroisopropyl)ether	178490-1	< 10 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961 Duplicate	< 10 ug/l	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
Bis(2-ethylhexyl)phthalate	178490-1	< 10 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961 Duplicate	< 10 ug/l	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
4-Bromophenyl phenyl ether	178490-1	< 10 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961 Duplicate	< 10 ug/l	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
Butylbenzyl phthalate	178490-1	< 10 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961 Duplicate	< 10 ug/l	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
2-Chloronaphthalene	178490-1	< 10 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961 Duplicate	< 10 ug/l	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
2-Chlorophenol	178490-1	< 10 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961 Duplicate	< 10 ug/l	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
4-Chlorophenyl phenyl ether	178490-1	< 10 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961 Duplicate	< 10 ug/l	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
Chrysene	178490-1	< 5.0 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961 Duplicate	< 5.0 ug/l	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
Di-n-butyl phthalate	178490-1	< 10 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961 Duplicate	< 10 ug/l	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
Di-n-octyl phthalate	178490-1	< 10 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961 Duplicate	< 10 ug/l	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
Dibenz(a,h)anthracene	178490-1	< 5.0 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961 Duplicate	< 5.0 ug/l	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
3,3'-Dichlorobenzidine	178490-1	< 5.0 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961 Duplicate	< 5.0 ug/l	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		



Central Arkansas Water
338 Pleasant Valley Drive
Little Rock, AR 72212

DUPLICATE RESULTS

Analyte	AIC No.	Result	RPD	RPD Limit	Preparation Date	Analysis Date	Dil	Qual
Base/Neutral and Acid Compounds (Continued)								
2,4-Dichlorophenol	178490-1	< 10 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961	Duplicate	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
Diethyl phthalate	178490-1	< 10 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961	Duplicate	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
Dimethyl phthalate	178490-1	< 10 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961	Duplicate	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
2,4-Dimethylphenol	178490-1	< 10 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961	Duplicate	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
4,6-Dinitro-o-cresol	178490-1	< 50 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961	Duplicate	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
2,4-Dinitrophenol	178490-1	< 50 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961	Duplicate	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
2,4-Dinitrotoluene	178490-1	< 10 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961	Duplicate	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
2,6-Dinitrotoluene	178490-1	< 10 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961	Duplicate	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
1,2-Diphenylhydrazine	178490-1	< 20 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961	Duplicate	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
Fluorene	178490-1	< 10 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961	Duplicate	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
Hexachlorobenzene	178490-1	< 5.0 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961	Duplicate	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
Hexachlorobutadiene	178490-1	< 10 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961	Duplicate	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
Hexachlorocyclopentadiene	178490-1	< 10 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961	Duplicate	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
Hexachloroethane	178490-1	< 20 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961	Duplicate	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
Indeno(1,2,3-cd)pyrene	178490-1	< 5.0 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961	Duplicate	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
Isophorone	178490-1	< 10 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961	Duplicate	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
n-Nitrosodi-n-propylamine	178490-1	< 20 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961	Duplicate	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
n-Nitrosodimethylamine	178490-1	< 50 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961	Duplicate	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
n-Nitrosodiphenylamine	178490-1	< 20 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961	Duplicate	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		R
Naphthalene	178490-1	< 10 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961	Duplicate	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		R
Nitrobenzene	178490-1	< 10 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961	Duplicate	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
2-Nitrophenol	178490-1	< 20 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961	Duplicate	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
4-Nitrophenol	178490-1	< 50 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961	Duplicate	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		

Central Arkansas Water
338 Pleasant Valley Drive
Little Rock, AR 72212

DUPLICATE RESULTS

Analyte	AIC No.	Result	RPD	RPD Limit	Preparation Date	Analysis Date	Dil	Qual
Base/Neutral and Acid Compounds (Continued)								
p-Chloro-m-cresol	178490-1	< 10 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961	Duplicate	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
Pentachlorophenol	178490-1	< 5.0 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961	Duplicate	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
Phenanthrene	178490-1	< 10 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961	Duplicate	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
Phenol	178490-1	< 10 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961	Duplicate	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
Pyrene	178490-1	< 10 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961	Duplicate	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
1,2,4-Trichlorobenzene	178490-1	< 10 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961	Duplicate	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
2,4,6-Trichlorophenol	178490-1	< 10 ug/l			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961	Duplicate	0.00	30.0	14May14 1439 by 306	14May14 1901 by 301		
2-Fluorobiphenyl (50.0-110%)	178490-1	85.0 %			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961	Duplicate			14May14 1439 by 306	14May14 1901 by 301		
2-Fluorophenol (20.0-110%)	178490-1	58.9 %			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961	Duplicate			14May14 1439 by 306	14May14 1901 by 301		
Nitrobenzene-D5 (40.0-110%)	178490-1	84.0 %			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961	Duplicate			14May14 1439 by 306	14May14 1901 by 301		
Terphenyl-D14 (50.0-135%)	178490-1	89.1 %			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961	Duplicate			14May14 1439 by 306	14May14 1901 by 301		
2,4,6-Tribromophenol (40.0-125%)	178490-1	48.5 %			14May14 1438 by 306	14May14 2016 by 301		
	Batch: B8961	Duplicate			14May14 1439 by 306	14May14 1901 by 301		
Organochlorine Pesticides and PCBs								
Aldrin	178490-1	< 0.010 ug/l			14May14 1153 by 306	14May14 1757 by 306		
	Batch: G9711	Duplicate	0.00	30.0	14May14 1153 by 306	14May14 1734 by 306		
alpha-BHC	178490-1	< 0.050 ug/l			14May14 1153 by 306	14May14 1757 by 306		
	Batch: G9711	Duplicate	0.00	30.0	14May14 1153 by 306	14May14 1734 by 306		
alpha-Endosulfan	178490-1	< 0.010 ug/l			14May14 1153 by 306	14May14 1757 by 306		
	Batch: G9711	Duplicate	0.00	30.0	14May14 1153 by 306	14May14 1734 by 306		
beta-BHC	178490-1	< 0.050 ug/l			14May14 1153 by 306	14May14 1757 by 306		
	Batch: G9711	Duplicate	0.00	30.0	14May14 1153 by 306	14May14 1734 by 306		
beta-Endosulfan	178490-1	< 0.020 ug/l			14May14 1153 by 306	14May14 1757 by 306		
	Batch: G9711	Duplicate	0.00	30.0	14May14 1153 by 306	14May14 1734 by 306		
Chlorpyrifos	178490-1	< 0.070 ug/l			14May14 1153 by 306	14May14 1757 by 306		
	Batch: G9711	Duplicate	0.00	30.0	14May14 1153 by 306	14May14 1734 by 306		
4,4'-DDD	178490-1	< 0.10 ug/l			14May14 1153 by 306	14May14 1757 by 306		
	Batch: G9711	Duplicate	0.00	30.0	14May14 1153 by 306	14May14 1734 by 306		
4,4'-DDE	178490-1	< 0.10 ug/l			14May14 1153 by 306	14May14 1757 by 306		
	Batch: G9711	Duplicate	0.00	30.0	14May14 1153 by 306	14May14 1734 by 306		
4,4'-DDT	178490-1	< 0.020 ug/l			14May14 1153 by 306	14May14 1757 by 306		
	Batch: G9711	Duplicate	0.00	30.0	14May14 1153 by 306	14May14 1734 by 306		
delta-BHC	178490-1	< 0.050 ug/l			14May14 1153 by 306	14May14 1757 by 306		
	Batch: G9711	Duplicate	0.00	30.0	14May14 1153 by 306	14May14 1734 by 306		

Central Arkansas Water
 338 Pleasant Valley Drive
 Little Rock, AR 72212

DUPLICATE RESULTS

Analyte	AIC No.	Result	RPD	RPD Limit	Preparation Date	Analysis Date	Dil	Qual
Dieldrin	178490-1	< 0.020 ug/l			14May14 1153 by 306	14May14 1757 by 306		
	Batch: G9711 Duplicate	< 0.020 ug/l	0.00	30.0	14May14 1153 by 306	14May14 1734 by 306		
Endosulfan sulfate	178490-1	< 0.10 ug/l			14May14 1153 by 306	14May14 1757 by 306		
	Batch: G9711 Duplicate	< 0.10 ug/l	0.00	30.0	14May14 1153 by 306	14May14 1734 by 306		
Endrin	178490-1	< 0.020 ug/l			14May14 1153 by 306	14May14 1757 by 306		
	Batch: G9711 Duplicate	< 0.020 ug/l	0.00	30.0	14May14 1153 by 306	14May14 1734 by 306		
Endrin aldehyde	178490-1	< 0.10 ug/l			14May14 1153 by 306	14May14 1757 by 306		
	Batch: G9711 Duplicate	< 0.10 ug/l	0.00	30.0	14May14 1153 by 306	14May14 1734 by 306		
gamma-BHC	178490-1	< 0.050 ug/l			14May14 1153 by 306	14May14 1757 by 306		
	Batch: G9711 Duplicate	< 0.050 ug/l	0.00	30.0	14May14 1153 by 306	14May14 1734 by 306		
Heptachlor	178490-1	< 0.010 ug/l			14May14 1153 by 306	14May14 1757 by 306		
	Batch: G9711 Duplicate	< 0.010 ug/l	0.00	30.0	14May14 1153 by 306	14May14 1734 by 306		
Heptachlor epoxide	178490-1	< 0.010 ug/l			14May14 1153 by 306	14May14 1757 by 306		
	Batch: G9711 Duplicate	< 0.010 ug/l	0.00	30.0	14May14 1153 by 306	14May14 1734 by 306		
Decachlorobiphenyl (30.0-135%)	178490-1	96.8 %			14May14 1153 by 306	14May14 1757 by 306		
	Batch: G9711 Duplicate	92.0 %			14May14 1153 by 306	14May14 1734 by 306		
Tetrachloro-m-xylene (25.0-140%)	178490-1	100 %			14May14 1153 by 306	14May14 1757 by 306		
	Batch: G9711 Duplicate	91.2 %			14May14 1153 by 306	14May14 1734 by 306		
Volatile Organic Compounds								
Acrolein	178369-3	< 2.5 ug/l			13May14 1030 by 301	13May14 1532 by 301		D
	Batch: V8517 Duplicate	< 2.5 ug/l	0.00	30.0	13May14 1031 by 301	13May14 1610 by 301		
Acrylonitrile	178369-3	< 2.5 ug/l			13May14 1030 by 301	13May14 1532 by 301		D
	Batch: V8517 Duplicate	< 2.5 ug/l	0.00	30.0	13May14 1031 by 301	13May14 1610 by 301		
Benzene	178369-3	8.6 ug/l			13May14 1030 by 301	13May14 1532 by 301		D
	Batch: V8517 Duplicate	8.9 ug/l	2.74	30.0	13May14 1031 by 301	13May14 1610 by 301		
Bromodichloromethane	178369-3	< 0.17 ug/l			13May14 1030 by 301	13May14 1532 by 301		D
	Batch: V8517 Duplicate	< 0.17 ug/l	0.00	30.0	13May14 1031 by 301	13May14 1610 by 301		
Bromoform	178369-3	< 0.26 ug/l			13May14 1030 by 301	13May14 1532 by 301		D
	Batch: V8517 Duplicate	< 0.26 ug/l	0.00	30.0	13May14 1031 by 301	13May14 1610 by 301		
Bromomethane	178369-3	< 0.16 ug/l			13May14 1030 by 301	13May14 1532 by 301		D
	Batch: V8517 Duplicate	< 0.16 ug/l	0.00	30.0	13May14 1031 by 301	13May14 1610 by 301		
Carbon tetrachloride	178369-3	< 0.21 ug/l			13May14 1030 by 301	13May14 1532 by 301		D
	Batch: V8517 Duplicate	< 0.21 ug/l	0.00	30.0	13May14 1031 by 301	13May14 1610 by 301		
Chlorobenzene	178369-3	< 0.11 ug/l			13May14 1030 by 301	13May14 1532 by 301		D
	Batch: V8517 Duplicate	< 0.11 ug/l	0.00	30.0	13May14 1031 by 301	13May14 1610 by 301		
Chloroethane	178369-3	< 0.35 ug/l			13May14 1030 by 301	13May14 1532 by 301		D
	Batch: V8517 Duplicate	< 0.35 ug/l	0.00	30.0	13May14 1031 by 301	13May14 1610 by 301		
2-Chloroethyl vinyl ether	178369-3	< 0.24 ug/l			13May14 1030 by 301	13May14 1532 by 301		D
	Batch: V8517 Duplicate	< 0.24 ug/l	0.00	20.0	13May14 1031 by 301	13May14 1610 by 301		
Chloroform	178369-3	3.8 ug/l			13May14 1030 by 301	13May14 1532 by 301		D
	Batch: V8517 Duplicate	3.8 ug/l	1.84	30.0	13May14 1031 by 301	13May14 1610 by 301		
Chloromethane	178369-3	< 0.19 ug/l			13May14 1030 by 301	13May14 1532 by 301		D
	Batch: V8517 Duplicate	< 0.19 ug/l	0.00	30.0	13May14 1031 by 301	13May14 1610 by 301		
Dibromochloromethane	178369-3	< 0.11 ug/l			13May14 1030 by 301	13May14 1532 by 301		D
	Batch: V8517 Duplicate	< 0.11 ug/l	0.00	30.0	13May14 1031 by 301	13May14 1610 by 301		
1,2-Dichlorobenzene	178369-3	< 0.50 ug/l			13May14 1030 by 301	13May14 1532 by 301		D
	Batch: V8517 Duplicate	< 0.50 ug/l	0.00	30.0	13May14 1031 by 301	13May14 1610 by 301		



Central Arkansas Water
338 Pleasant Valley Drive
Little Rock, AR 72212

DUPLICATE RESULTS

Analyte	AIC No.	Result	RPD	RPD Limit	Preparation Date	Analysis Date	Dil	Qual
Volatile Organic Compounds (Continued)								
1,3-Dichlorobenzene	178369-3	< 0.20 ug/l			13May14 1030 by 301	13May14 1532 by 301		D
	Batch: V8517 Duplicate	< 0.20 ug/l	0.00	30.0	13May14 1031 by 301	13May14 1610 by 301		
1,4-Dichlorobenzene	178369-3	< 0.50 ug/l			13May14 1030 by 301	13May14 1532 by 301		D
	Batch: V8517 Duplicate	< 0.50 ug/l	0.00	30.0	13May14 1031 by 301	13May14 1610 by 301		
1,1-Dichloroethane	178369-3	< 0.15 ug/l			13May14 1030 by 301	13May14 1532 by 301		D
	Batch: V8517 Duplicate	< 0.15 ug/l	0.00	30.0	13May14 1031 by 301	13May14 1610 by 301		
1,2-Dichloroethane	178369-3	110 ug/l			13May14 1030 by 301	14May14 1334 by 301	5	D
	Batch: V8517 Duplicate	110 ug/l	3.57	30.0	13May14 1031 by 301	14May14 1411 by 301	5	D
1,1-Dichloroethene	178369-3	< 0.24 ug/l			13May14 1030 by 301	13May14 1532 by 301		D
	Batch: V8517 Duplicate	< 0.24 ug/l	0.00	30.0	13May14 1031 by 301	13May14 1610 by 301		
trans-1,2-Dichloroethene	178369-3	0.31 ug/l			13May14 1030 by 301	13May14 1532 by 301		D
	Batch: V8517 Duplicate	0.32 ug/l	3.17	30.0	13May14 1031 by 301	13May14 1610 by 301		J
1,2-Dichloropropane	178369-3	< 0.19 ug/l			13May14 1030 by 301	13May14 1532 by 301		D
	Batch: V8517 Duplicate	< 0.19 ug/l	0.00	30.0	13May14 1031 by 301	13May14 1610 by 301		
Ethylbenzene	178369-3	< 0.12 ug/l			13May14 1030 by 301	13May14 1532 by 301		D
	Batch: V8517 Duplicate	< 0.12 ug/l	0.00	30.0	13May14 1031 by 301	13May14 1610 by 301		
Methylene chloride	178369-3	1.6 ug/l			13May14 1030 by 301	13May14 1532 by 301		D
	Batch: V8517 Duplicate	1.6 ug/l	3.17	30.0	13May14 1031 by 301	13May14 1610 by 301		
1,1,2,2-Tetrachloroethane	178369-3	4.4 ug/l			13May14 1030 by 301	13May14 1532 by 301		D
	Batch: V8517 Duplicate	4.5 ug/l	3.60	30.0	13May14 1031 by 301	13May14 1610 by 301		
Tetrachloroethene	178369-3	0.64 ug/l			13May14 1030 by 301	13May14 1532 by 301		D
	Batch: V8517 Duplicate	0.68 ug/l	6.06	30.0	13May14 1031 by 301	13May14 1610 by 301		
Toluene	178369-3	< 0.16 ug/l			13May14 1030 by 301	13May14 1532 by 301		D
	Batch: V8517 Duplicate	< 0.16 ug/l	0.00	30.0	13May14 1031 by 301	13May14 1610 by 301		
1,1,1-Trichloroethane	178369-3	< 0.13 ug/l			13May14 1030 by 301	13May14 1532 by 301		D
	Batch: V8517 Duplicate	< 0.13 ug/l	0.00	30.0	13May14 1031 by 301	13May14 1610 by 301		
1,1,2-Trichloroethane	178369-3	0.70 ug/l			13May14 1030 by 301	13May14 1532 by 301		D
	Batch: V8517 Duplicate	0.66 ug/l	5.88	30.0	13May14 1031 by 301	13May14 1610 by 301		
Trichloroethene	178369-3	1.3 ug/l			13May14 1030 by 301	13May14 1532 by 301		D
	Batch: V8517 Duplicate	1.3 ug/l	0.772	30.0	13May14 1031 by 301	13May14 1610 by 301		
Vinyl chloride	178369-3	4.3 ug/l			13May14 1030 by 301	13May14 1532 by 301		D
	Batch: V8517 Duplicate	4.3 ug/l	0.930	30.0	13May14 1031 by 301	13May14 1610 by 301		
4-Bromofluorobenzene (75.0-120%)	178369-3	96.1 %			13May14 1030 by 301	13May14 1532 by 301		D
	Batch: V8517 Duplicate	96.5 %			13May14 1031 by 301	13May14 1610 by 301		
Dibromofluoromethane (85.0-115%)	178369-3	108 %			13May14 1030 by 301	13May14 1532 by 301		D
	Batch: V8517 Duplicate	108 %			13May14 1031 by 301	13May14 1610 by 301		
Toluene-D8 (85.0-120%)	178369-3	99.2 %			13May14 1030 by 301	13May14 1532 by 301		D
	Batch: V8517 Duplicate	98.6 %			13May14 1031 by 301	13May14 1610 by 301		

Central Arkansas Water
 338 Pleasant Valley Drive
 Little Rock, AR 72212

LABORATORY CONTROL SAMPLE RESULTS

Analyte	Spike Amount	%	Limits	RPD	Limit	Batch	Preparation Date	Analysis Date	Dil	Qual
Total Recoverable Phenolics	0.1 mg/l	101	85.0-115			W47676	13May14 0831 by 308	13May14 1215 by 308		
Chromium, Hexavalent	0.05 mg/l	100	80.0-120			W47688	13May14 1420 by 308	13May14 1530 by 308		
Total Cyanide	0.1 mg/l	99.9	85.0-115			W47679	13May14 0905 by 308	13May14 1546 by 308		
Mercury, low level	0.01 ug/l	110	76.0-113			S36804	16May14 0910 by 311	16May14 1101 by 311		
Total Recoverable Antimony	0.05 mg/l	98.5	85.0-115			S36787	13May14 1341 by 285	14May14 1712 by 305		
Total Recoverable Arsenic	0.05 mg/l	102	85.0-115			S36787	13May14 1341 by 285	14May14 1712 by 305		
Total Recoverable Beryllium	0.05 mg/l	95.5	85.0-115			S36787	13May14 1341 by 285	14May14 1712 by 305		
Total Recoverable Cadmium	0.05 mg/l	101	85.0-115			S36787	13May14 1341 by 285	14May14 1712 by 305		
Total Recoverable Chromium	0.05 mg/l	100	85.0-115			S36787	13May14 1341 by 285	14May14 1712 by 305		
Total Recoverable Copper	0.05 mg/l	102	85.0-115			S36787	13May14 1341 by 285	14May14 1712 by 305		
Total Recoverable Lead	0.05 mg/l	98.9	85.0-115			S36787	13May14 1341 by 285	14May14 1712 by 305		
Total Recoverable Nickel	0.05 mg/l	102	85.0-115			S36787	13May14 1341 by 285	14May14 1712 by 305		
Total Recoverable Selenium	0.05 mg/l	95.9	85.0-115			S36787	13May14 1341 by 285	14May14 1712 by 305		
Total Recoverable Silver	0.02 mg/l	99.6	85.0-115			S36787	13May14 1341 by 285	14May14 1712 by 305		
Total Recoverable Thallium	0.05 mg/l	101	85.0-115			S36787	13May14 1341 by 285	14May14 1712 by 305		
Total Recoverable Zinc	0.05 mg/l	111	85.0-115			S36787	13May14 1341 by 285	14May14 1712 by 305		
Base/Neutral and Acid Compounds										
Acenaphthene	40 ug/l	78.1	45.0-110			B8961	14May14 1439 by 306	14May14 1745 by 301		
Acenaphthylene	40 ug/l	79.2	50.0-105			B8961	14May14 1439 by 306	14May14 1745 by 301		
Anthracene	40 ug/l	80.1	55.0-110			B8961	14May14 1439 by 306	14May14 1745 by 301		
Benzidine	100 ug/l	18.7	0.00-61.1			B8961	14May14 1439 by 306	14May14 1745 by 301		
Benzo(a)anthracene	40 ug/l	80.2	55.0-110			B8961	14May14 1439 by 306	14May14 1745 by 301		
Benzo(a)pyrene	40 ug/l	82.6	55.0-110			B8961	14May14 1439 by 306	14May14 1745 by 301		
Benzo(g,h,i)perylene	40 ug/l	72.6	40.0-125			B8961	14May14 1439 by 306	14May14 1745 by 301		
Benzo(k)fluoranthene	40 ug/l	86.3	45.0-125			B8961	14May14 1439 by 306	14May14 1745 by 301		
3,4-Benzofluoranthene	40 ug/l	86.4	45.0-120			B8961	14May14 1439 by 306	14May14 1745 by 301		
Bis(2-chloroethoxy)methane	40 ug/l	75.1	45.0-105			B8961	14May14 1439 by 306	14May14 1745 by 301		
Bis(2-chloroethyl)ether	40 ug/l	76.7	35.0-110			B8961	14May14 1439 by 306	14May14 1745 by 301		
Bis(2-chloroisopropyl)ether	40 ug/l	79.3	25.0-130			B8961	14May14 1439 by 306	14May14 1745 by 301		
Bis(2-ethylhexyl)phthalate	40 ug/l	92.2	40.0-125			B8961	14May14 1439 by 306	14May14 1745 by 301		
4-Bromophenyl phenyl ether	40 ug/l	75.6	50.0-115			B8961	14May14 1439 by 306	14May14 1745 by 301		
Butylbenzyl phthalate	40 ug/l	90.0	45.0-115			B8961	14May14 1439 by 306	14May14 1745 by 301		
2-Chloronaphthalene	40 ug/l	77.3	50.0-105			B8961	14May14 1439 by 306	14May14 1745 by 301		
2-Chlorophenol	40 ug/l	75.6	35.0-105			B8961	14May14 1439 by 306	14May14 1745 by 301		
4-Chlorophenyl phenyl ether	40 ug/l	76.7	50.0-110			B8961	14May14 1439 by 306	14May14 1745 by 301		
Chrysene	40 ug/l	81.5	55.0-110			B8961	14May14 1439 by 306	14May14 1745 by 301		
Di-n-butyl phthalate	40 ug/l	84.4	55.0-115			B8961	14May14 1439 by 306	14May14 1745 by 301		
Di-n-octyl phthalate	40 ug/l	82.0	35.0-135			B8961	14May14 1439 by 306	14May14 1745 by 301		
Dibenz(a,h)anthracene	40 ug/l	72.7	40.0-125			B8961	14May14 1439 by 306	14May14 1745 by 301		
1,2-Dichlorobenzene	40 ug/l	72.7	35.0-100			B8961	14May14 1439 by 306	14May14 1745 by 301		

Central Arkansas Water
338 Pleasant Valley Drive
Little Rock, AR 72212

LABORATORY CONTROL SAMPLE RESULTS

Analyte	Spike Amount	%	Limits	RPD	Limit	Batch	Preparation Date	Analysis Date	Dil	Qual
Base/Neutral and Acid Compounds (Continued)										
1,3-Dichlorobenzene	40 ug/l	70.6	30.0-100			B8961	14May14 1439 by 306	14May14 1745 by 301		
1,4-Dichlorobenzene	40 ug/l	70.6	30.0-100			B8961	14May14 1439 by 306	14May14 1745 by 301		
3,3'-Dichlorobenzidine	40 ug/l	59.2	20.0-110			B8961	14May14 1439 by 306	14May14 1745 by 301		
2,4-Dichlorophenol	40 ug/l	72.6	50.0-105			B8961	14May14 1439 by 306	14May14 1745 by 301		
Diethyl phthalate	40 ug/l	83.8	40.0-120			B8961	14May14 1439 by 306	14May14 1745 by 301		
Dimethyl phthalate	40 ug/l	82.0	25.0-125			B8961	14May14 1439 by 306	14May14 1745 by 301		
2,4-Dimethylphenol	40 ug/l	67.4	30.0-110			B8961	14May14 1439 by 306	14May14 1745 by 301		
4,6-Dinitro-o-cresol	40 ug/l	63.9	40.0-130			B8961	14May14 1439 by 306	14May14 1745 by 301		
2,4-Dinitrophenol	40 ug/l	49.2	15.0-140			B8961	14May14 1439 by 306	14May14 1745 by 301		
2,4-Dinitrotoluene	40 ug/l	79.5	50.0-120			B8961	14May14 1439 by 306	14May14 1745 by 301		
2,6-Dinitrotoluene	40 ug/l	80.4	50.0-115			B8961	14May14 1439 by 306	14May14 1745 by 301		
1,2-Diphenylhydrazine	40 ug/l	83.9	55.0-115			B8961	14May14 1439 by 306	14May14 1745 by 301		
Fluorene	40 ug/l	80.6	50.0-110			B8961	14May14 1439 by 306	14May14 1745 by 301		
Hexachlorobenzene	40 ug/l	77.0	50.0-110			B8961	14May14 1439 by 306	14May14 1745 by 301		
Hexachlorobutadiene	40 ug/l	73.4	25.0-105			B8961	14May14 1439 by 306	14May14 1745 by 301		
Hexachlorocyclopentadiene	40 ug/l	75.8	35.0-102			B8961	14May14 1439 by 306	14May14 1745 by 301		
Hexachloroethane	40 ug/l	74.6	30.0-100			B8961	14May14 1439 by 306	14May14 1745 by 301		
Indeno(1,2,3-cd)pyrene	40 ug/l	76.5	45.0-125			B8961	14May14 1439 by 306	14May14 1745 by 301		
Isophorone	40 ug/l	75.4	50.0-110			B8961	14May14 1439 by 306	14May14 1745 by 301		
n-Nitrosodi-n-propylamine	40 ug/l	81.4	35.0-130			B8961	14May14 1439 by 306	14May14 1745 by 301		
n-Nitrosodimethylamine	40 ug/l	65.3	25.0-110			B8961	14May14 1439 by 306	14May14 1745 by 301		
n-Nitrosodiphenylamine	40 ug/l	79.2	50.0-110			B8961	14May14 1439 by 306	14May14 1745 by 301		
Naphthalene	40 ug/l	75.4	40.0-100			B8961	14May14 1439 by 306	14May14 1745 by 301		
Nitrobenzene	40 ug/l	78.0	45.0-110			B8961	14May14 1439 by 306	14May14 1745 by 301		
2-Nitrophenol	40 ug/l	72.1	40.0-115			B8961	14May14 1439 by 306	14May14 1745 by 301		
4-Nitrophenol	40 ug/l	45.3	0.00-125			B8961	14May14 1439 by 306	14May14 1745 by 301		
p-Chloro-m-cresol	40 ug/l	79.0	45.0-110			B8961	14May14 1439 by 306	14May14 1745 by 301		
Pentachlorophenol	40 ug/l	58.5	40.0-115			B8961	14May14 1439 by 306	14May14 1745 by 301		
Phenanthrene	40 ug/l	79.8	50.0-115			B8961	14May14 1439 by 306	14May14 1745 by 301		
Phenol	40 ug/l	45.8	0.00-115			B8961	14May14 1439 by 306	14May14 1745 by 301		
Pyrene	40 ug/l	84.5	50.0-130			B8961	14May14 1439 by 306	14May14 1745 by 301		
1,2,4-Trichlorobenzene	40 ug/l	72.2	35.0-105			B8961	14May14 1439 by 306	14May14 1745 by 301		
2,4,6-Trichlorophenol	40 ug/l	75.7	50.0-115			B8961	14May14 1439 by 306	14May14 1745 by 301		
Base/Neutral and Acid Compounds Surrogates:										
2-Fluorobiphenyl	40 ug/l	82.4	50.0-110			B8961	14May14 1439 by 306	14May14 1745 by 301		
2-Fluorophenol	40 ug/l	60.2	20.0-110			B8961	14May14 1439 by 306	14May14 1745 by 301		
Nitrobenzene-D5	40 ug/l	80.5	40.0-110			B8961	14May14 1439 by 306	14May14 1745 by 301		
Terphenyl-D14	40 ug/l	87.6	50.0-135			B8961	14May14 1439 by 306	14May14 1745 by 301		
2,4,6-Tribromophenol	40 ug/l	76.2	40.0-125			B8961	14May14 1439 by 306	14May14 1745 by 301		

Central Arkansas Water
338 Pleasant Valley Drive
Little Rock, AR 72212

LABORATORY CONTROL SAMPLE RESULTS

Analyte	Spike Amount	%	Limits	RPD	Limit	Batch	Preparation Date	Analysis Date	Dil	Qual
Volatile Organic Compounds										
Acrolein	100 ug/l	80.9	33.0-154			V8517	13May14 1031 by 301	13May14 1135 by 301		
Acrylonitrile	100 ug/l	99.1	64.4-133			V8517	13May14 1031 by 301	13May14 1135 by 301		
Benzene	20 ug/l	102	80.0-120			V8517	13May14 1031 by 301	13May14 1135 by 301		
Bromodichloromethane	20 ug/l	96.8	75.0-120			V8517	13May14 1031 by 301	13May14 1135 by 301		
Bromoform	20 ug/l	89.6	70.0-130			V8517	13May14 1031 by 301	13May14 1135 by 301		
Bromomethane	20 ug/l	113	30.0-145			V8517	13May14 1031 by 301	13May14 1135 by 301		
Carbon tetrachloride	20 ug/l	99.2	65.0-140			V8517	13May14 1031 by 301	13May14 1135 by 301		
Chlorobenzene	20 ug/l	102	80.0-120			V8517	13May14 1031 by 301	13May14 1135 by 301		
Chloroethane	20 ug/l	120	60.0-135			V8517	13May14 1031 by 301	13May14 1135 by 301		
2-Chloroethyl vinyl ether	40 ug/l	102	69.9-126			V8517	13May14 1031 by 301	13May14 1135 by 301		
Chloroform	20 ug/l	97.3	65.0-135			V8517	13May14 1031 by 301	13May14 1135 by 301		
Chloromethane	20 ug/l	98.8	40.0-125			V8517	13May14 1031 by 301	13May14 1135 by 301		
Dibromochloromethane	20 ug/l	95.6	60.0-135			V8517	13May14 1031 by 301	13May14 1135 by 301		
1,2-Dichlorobenzene	20 ug/l	100	70.0-120			V8517	13May14 1031 by 301	13May14 1135 by 301		
1,3-Dichlorobenzene	20 ug/l	98.2	75.0-125			V8517	13May14 1031 by 301	13May14 1135 by 301		
1,4-Dichlorobenzene	20 ug/l	99.7	75.0-125			V8517	13May14 1031 by 301	13May14 1135 by 301		
1,1-Dichloroethane	20 ug/l	105	70.0-135			V8517	13May14 1031 by 301	13May14 1135 by 301		
1,2-Dichloroethane	20 ug/l	103	70.0-130			V8517	13May14 1031 by 301	13May14 1135 by 301		
1,1-Dichloroethene	20 ug/l	109	70.0-130			V8517	13May14 1031 by 301	13May14 1135 by 301		
trans-1,2-Dichloroethene	20 ug/l	107	60.0-140			V8517	13May14 1031 by 301	13May14 1135 by 301		
1,2-Dichloropropane	20 ug/l	102	75.0-125			V8517	13May14 1031 by 301	13May14 1135 by 301		
1,3-Dichloropropylene	20 ug/l	96.8	70.0-130			V8517	13May14 1031 by 301	13May14 1135 by 301		
Ethylbenzene	20 ug/l	97.8	75.0-125			V8517	13May14 1031 by 301	13May14 1135 by 301		
Methylene chloride	20 ug/l	85.0	55.0-140			V8517	13May14 1031 by 301	13May14 1135 by 301		
1,1,2,2-Tetrachloroethane	20 ug/l	99.2	65.0-130			V8517	13May14 1031 by 301	13May14 1135 by 301		
Tetrachloroethene	20 ug/l	103	45.0-150			V8517	13May14 1031 by 301	13May14 1135 by 301		
Toluene	20 ug/l	99.2	75.0-120			V8517	13May14 1031 by 301	13May14 1135 by 301		
1,1,1-Trichloroethane	20 ug/l	98.6	65.0-130			V8517	13May14 1031 by 301	13May14 1135 by 301		
1,1,2-Trichloroethane	20 ug/l	101	75.0-125			V8517	13May14 1031 by 301	13May14 1135 by 301		
Trichloroethene	20 ug/l	102	70.0-125			V8517	13May14 1031 by 301	13May14 1135 by 301		
Vinyl chloride	20 ug/l	110	50.0-145			V8517	13May14 1031 by 301	13May14 1135 by 301		
Volatile Organic Compounds Surrogates:										
4-Bromofluorobenzene	50 ug/l	97.9	75.0-120			V8517	13May14 1031 by 301	13May14 1135 by 301		
Dibromofluoromethane	50 ug/l	99.1	85.0-115			V8517	13May14 1031 by 301	13May14 1135 by 301		
Toluene-D8	50 ug/l	98.6	85.0-120			V8517	13May14 1031 by 301	13May14 1135 by 301		
Organochlorine Pesticides and PCBs										
Aldrin	10 ug/l	82.0	25.0-140			G9711	14May14 1153 by 306	14May14 1711 by 306		
alpha-BHC	10 ug/l	83.8	60.0-130			G9711	14May14 1153 by 306	14May14 1711 by 306		



Central Arkansas Water
338 Pleasant Valley Drive
Little Rock, AR 72212

LABORATORY CONTROL SAMPLE RESULTS

<u>Analyte</u>	<u>Spike Amount</u>	<u>%</u>	<u>Limits</u>	<u>RPD</u>	<u>Limit</u>	<u>Batch</u>	<u>Preparation Date</u>	<u>Analysis Date</u>	<u>Dil</u>	<u>Qual</u>
Organochlorine Pesticides and PCBs (Continued)										
alpha-Endosulfan	10 ug/l	84.2	50.0-110			G9711	14May14 1153 by 306	14May14 1711 by 306		
beta-BHC	10 ug/l	84.3	65.0-125			G9711	14May14 1153 by 306	14May14 1711 by 306		
beta-Endosulfan	10 ug/l	98.7	30.0-130			G9711	14May14 1153 by 306	14May14 1711 by 306		
Chlorpyrifos	10 ug/l	89.6	55.4-122			G9711	14May14 1153 by 306	14May14 1711 by 306		
4,4'-DDD	10 ug/l	87.7	25.0-150			G9711	14May14 1153 by 306	14May14 1711 by 306		
4,4'-DDE	10 ug/l	84.7	35.0-140			G9711	14May14 1153 by 306	14May14 1711 by 306		
4,4'-DDT	10 ug/l	125	45.0-140			G9711	14May14 1153 by 306	14May14 1711 by 306		
delta-BHC	10 ug/l	89.6	45.0-135			G9711	14May14 1153 by 306	14May14 1711 by 306		
Dieldrin	10 ug/l	90.2	60.0-130			G9711	14May14 1153 by 306	14May14 1711 by 306		
Endosulfan sulfate	10 ug/l	93.6	55.0-135			G9711	14May14 1153 by 306	14May14 1711 by 306		
Endrin	10 ug/l	93.5	55.0-135			G9711	14May14 1153 by 306	14May14 1711 by 306		
Endrin aldehyde	10 ug/l	98.7	55.0-135			G9711	14May14 1153 by 306	14May14 1711 by 306		
gamma-BHC	10 ug/l	87.3	25.0-135			G9711	14May14 1153 by 306	14May14 1711 by 306		
Heptachlor	10 ug/l	89.5	40.0-130			G9711	14May14 1153 by 306	14May14 1711 by 306		
Heptachlor epoxide	10 ug/l	86.5	60.0-130			G9711	14May14 1153 by 306	14May14 1711 by 306		
Organochlorine Pesticides and PCBs Surrogates:										
Decachlorobiphenyl	20 ug/l	89.8	30.0-135			G9711	14May14 1153 by 306	14May14 1711 by 306		
Tetrachloro-m-xylene	20 ug/l	102	25.0-140			G9711	14May14 1153 by 306	14May14 1711 by 306		

Central Arkansas Water
 338 Pleasant Valley Drive
 Little Rock, AR 72212

MATRIX SPIKE SAMPLE RESULTS

<u>Analyte</u>	<u>Sample</u>	<u>Spike Amount</u>	<u>%</u>	<u>Limits</u>	<u>Batch</u>	<u>Preparation Date</u>	<u>Analysis Date</u>	<u>Dil</u>	<u>Qual</u>
Total Recoverable Phenolics	178490-1	0.1 mg/l	92.8	80.0-120	W47676	13May14 0831 by 308	13May14 1215 by 308		
	178490-1	0.1 mg/l	94.2	80.0-120	W47676	13May14 0831 by 308	13May14 1215 by 308		
	Relative Percent Difference:		1.34	10.0		W47676			
Chromium, Hexavalent	178439-1	0.05 mg/l	98.4	80.0-120	W47688	13May14 1420 by 308	13May14 1530 by 308		
	178439-1	0.05 mg/l	99.6	80.0-120	W47688	13May14 1420 by 308	13May14 1530 by 308		
	Relative Percent Difference:		1.21	25.0		W47688			
Total Cyanide	178439-1	0.1 mg/l	99.9	75.0-125	W47679	13May14 0905 by 308	13May14 1549 by 308		
	178439-1	0.1 mg/l	87.5	75.0-125	W47679	13May14 0905 by 308	13May14 1551 by 308		
	Relative Percent Difference:		12.9	20.0		W47679			
Mercury, low level	178490-1	0.01 ug/l	98.6	63.0-111	S36804	16May14 0910 by 311	16May14 1106 by 311		
	178490-1	0.01 ug/l	105	63.0-111	S36804	16May14 0910 by 311	16May14 1111 by 311		
	Relative Percent Difference:		5.66	18.0		S36804			
Total Recoverable Antimony	178490-1	0.05 mg/l	95.4	75.0-125	S36787	13May14 1341 by 285	14May14 1717 by 305		
	178490-1	0.05 mg/l	95.9	75.0-125	S36787	13May14 1341 by 285	14May14 1722 by 305		
	Relative Percent Difference:		0.562	20.0		S36787			
Total Recoverable Arsenic	178490-1	0.05 mg/l	98.6	75.0-125	S36787	13May14 1341 by 285	14May14 1717 by 305		
	178490-1	0.05 mg/l	101	75.0-125	S36787	13May14 1341 by 285	14May14 1722 by 305		
	Relative Percent Difference:		2.86	20.0		S36787			
Total Recoverable Beryllium	178490-1	0.05 mg/l	94.6	75.0-125	S36787	13May14 1341 by 285	14May14 1717 by 305		
	178490-1	0.05 mg/l	94.8	75.0-125	S36787	13May14 1341 by 285	14May14 1722 by 305		
	Relative Percent Difference:		0.234	20.0		S36787			
Total Recoverable Cadmium	178490-1	0.05 mg/l	98.0	75.0-125	S36787	13May14 1341 by 285	14May14 1717 by 305		
	178490-1	0.05 mg/l	98.1	75.0-125	S36787	13May14 1341 by 285	14May14 1722 by 305		
	Relative Percent Difference:		0.142	20.0		S36787			
Total Recoverable Chromium	178490-1	0.05 mg/l	98.2	75.0-125	S36787	13May14 1341 by 285	14May14 1717 by 305		
	178490-1	0.05 mg/l	97.6	75.0-125	S36787	13May14 1341 by 285	14May14 1722 by 305		
	Relative Percent Difference:		0.625	20.0		S36787			
Total Recoverable Copper	178490-1	0.05 mg/l	100	75.0-125	S36787	13May14 1341 by 285	14May14 1717 by 305		
	178490-1	0.05 mg/l	99.2	75.0-125	S36787	13May14 1341 by 285	14May14 1722 by 305		
	Relative Percent Difference:		0.823	20.0		S36787			
Total Recoverable Lead	178490-1	0.05 mg/l	98.1	75.0-125	S36787	13May14 1341 by 285	14May14 1717 by 305		
	178490-1	0.05 mg/l	98.4	75.0-125	S36787	13May14 1341 by 285	14May14 1722 by 305		
	Relative Percent Difference:		0.304	20.0		S36787			
Total Recoverable Nickel	178490-1	0.05 mg/l	101	75.0-125	S36787	13May14 1341 by 285	14May14 1717 by 305		
	178490-1	0.05 mg/l	100	75.0-125	S36787	13May14 1341 by 285	14May14 1722 by 305		
	Relative Percent Difference:		0.265	20.0		S36787			
Total Recoverable Selenium	178490-1	0.05 mg/l	91.4	75.0-125	S36787	13May14 1341 by 285	14May14 1717 by 305		
	178490-1	0.05 mg/l	90.5	75.0-125	S36787	13May14 1341 by 285	14May14 1722 by 305		
	Relative Percent Difference:		0.915	20.0		S36787			
Total Recoverable Silver	178490-1	0.02 mg/l	100	75.0-125	S36787	13May14 1341 by 285	14May14 1717 by 305		
	178490-1	0.02 mg/l	99.7	75.0-125	S36787	13May14 1341 by 285	14May14 1722 by 305		
	Relative Percent Difference:		0.559	20.0		S36787			
Total Recoverable Thallium	178490-1	0.05 mg/l	99.7	75.0-125	S36787	13May14 1341 by 285	14May14 1717 by 305		
	178490-1	0.05 mg/l	100	75.0-125	S36787	13May14 1341 by 285	14May14 1722 by 305		
	Relative Percent Difference:		0.668	20.0		S36787			
Total Recoverable Zinc	178490-1	0.05 mg/l	98.2	75.0-125	S36787	13May14 1341 by 285	14May14 1717 by 305		
	178490-1	0.05 mg/l	97.6	75.0-125	S36787	13May14 1341 by 285	14May14 1722 by 305		
	Relative Percent Difference:		0.484	20.0		S36787			

Central Arkansas Water
 338 Pleasant Valley Drive
 Little Rock, AR 72212

MATRIX SPIKE SAMPLE RESULTS

Analyte	Sample	Spike Amount	%	Limits	Batch	Preparation Date	Analysis Date	Dil	Qual
Base/Neutral and Acid Compounds									
Acenaphthene	178494-5	40 ug/l	83.0	45.0-110	B8961	14May14 1439 by 306	14May14 1823 by 301		
Acenaphthylene	178494-5	40 ug/l	82.5	50.0-105	B8961	14May14 1439 by 306	14May14 1823 by 301		
Anthracene	178494-5	40 ug/l	83.5	55.0-110	B8961	14May14 1439 by 306	14May14 1823 by 301		
Benzdine	178494-5	100 ug/l	4.94	0.00-47.0	B8961	14May14 1439 by 306	14May14 1823 by 301		
Benzo(a)anthracene	178494-5	40 ug/l	83.4	55.0-110	B8961	14May14 1439 by 306	14May14 1823 by 301		
Benzo(a)pyrene	178494-5	40 ug/l	84.8	55.0-110	B8961	14May14 1439 by 306	14May14 1823 by 301		
Benzo(g,h,i)perylene	178494-5	40 ug/l	83.7	40.0-125	B8961	14May14 1439 by 306	14May14 1823 by 301		
Benzo(k)fluoranthene	178494-5	40 ug/l	87.8	45.0-125	B8961	14May14 1439 by 306	14May14 1823 by 301		
3,4-Benzofluoranthene	178494-5	40 ug/l	87.3	45.0-120	B8961	14May14 1439 by 306	14May14 1823 by 301		
Bis(2-chloroethoxy)methane	178494-5	40 ug/l	80.6	45.0-105	B8961	14May14 1439 by 306	14May14 1823 by 301		
Bis(2-chloroethyl)ether	178494-5	40 ug/l	80.8	35.0-110	B8961	14May14 1439 by 306	14May14 1823 by 301		
Bis(2-chloroisopropyl)ether	178494-5	40 ug/l	81.6	25.0-130	B8961	14May14 1439 by 306	14May14 1823 by 301		
Bis(2-ethylhexyl)phthalate	178494-5	40 ug/l	98.0	40.0-125	B8961	14May14 1439 by 306	14May14 1823 by 301		
4-Bromophenyl phenyl ether	178494-5	40 ug/l	85.2	50.0-115	B8961	14May14 1439 by 306	14May14 1823 by 301		
Butylbenzyl phthalate	178494-5	40 ug/l	94.6	45.0-115	B8961	14May14 1439 by 306	14May14 1823 by 301		
2-Chloronaphthalene	178494-5	40 ug/l	83.3	50.0-105	B8961	14May14 1439 by 306	14May14 1823 by 301		
2-Chlorophenol	178494-5	40 ug/l	78.8	35.0-105	B8961	14May14 1439 by 306	14May14 1823 by 301		
4-Chlorophenyl phenyl ether	178494-5	40 ug/l	82.0	50.0-110	B8961	14May14 1439 by 306	14May14 1823 by 301		
Chrysene	178494-5	40 ug/l	84.0	55.0-110	B8961	14May14 1439 by 306	14May14 1823 by 301		
Di-n-butyl phthalate	178494-5	40 ug/l	86.9	55.0-115	B8961	14May14 1439 by 306	14May14 1823 by 301		
Di-n-octyl phthalate	178494-5	40 ug/l	86.6	35.0-135	B8961	14May14 1439 by 306	14May14 1823 by 301		
Dibenz(a,h)anthracene	178494-5	40 ug/l	79.3	40.0-125	B8961	14May14 1439 by 306	14May14 1823 by 301		
1,2-Dichlorobenzene	178494-5	40 ug/l	75.7	35.0-100	B8961	14May14 1439 by 306	14May14 1823 by 301		
1,3-Dichlorobenzene	178494-5	40 ug/l	74.4	30.0-100	B8961	14May14 1439 by 306	14May14 1823 by 301		
1,4-Dichlorobenzene	178494-5	40 ug/l	75.3	30.0-100	B8961	14May14 1439 by 306	14May14 1823 by 301		
3,3'-Dichlorobenzidine	178494-5	40 ug/l	40.8	20.0-110	B8961	14May14 1439 by 306	14May14 1823 by 301		
2,4-Dichlorophenol	178494-5	40 ug/l	79.0	50.0-105	B8961	14May14 1439 by 306	14May14 1823 by 301		
Diethyl phthalate	178494-5	40 ug/l	85.6	40.0-120	B8961	14May14 1439 by 306	14May14 1823 by 301		
Dimethyl phthalate	178494-5	40 ug/l	86.2	25.0-125	B8961	14May14 1439 by 306	14May14 1823 by 301		
2,4-Dimethylphenol	178494-5	40 ug/l	64.2	30.0-110	B8961	14May14 1439 by 306	14May14 1823 by 301		
4,6-Dinitro-o-cresol	178494-5	40 ug/l	68.2	40.0-130	B8961	14May14 1439 by 306	14May14 1823 by 301		
2,4-Dinitrophenol	178494-5	40 ug/l	58.2	15.0-140	B8961	14May14 1439 by 306	14May14 1823 by 301		
2,4-Dinitrotoluene	178494-5	40 ug/l	82.2	50.0-120	B8961	14May14 1439 by 306	14May14 1823 by 301		
2,6-Dinitrotoluene	178494-5	40 ug/l	81.8	50.0-115	B8961	14May14 1439 by 306	14May14 1823 by 301		
1,2-Diphenylhydrazine	178494-5	40 ug/l	91.8	55.0-115	B8961	14May14 1439 by 306	14May14 1823 by 301		
Fluorene	178494-5	40 ug/l	83.6	50.0-110	B8961	14May14 1439 by 306	14May14 1823 by 301		
Hexachlorobenzene	178494-5	40 ug/l	84.3	50.0-110	B8961	14May14 1439 by 306	14May14 1823 by 301		
Hexachlorobutadiene	178494-5	40 ug/l	78.2	25.0-105	B8961	14May14 1439 by 306	14May14 1823 by 301		
Hexachlorocyclopentadiene	178494-5	40 ug/l	85.2	6.60-121	B8961	14May14 1439 by 306	14May14 1823 by 301		

Central Arkansas Water
338 Pleasant Valley Drive
Little Rock, AR 72212

MATRIX SPIKE SAMPLE RESULTS

Analyte	Sample	Spike Amount	%	Limits	Batch	Preparation Date	Analysis Date	Dil	Qual
Base/Neutral and Acid Compounds (Continued)									
Hexachloroethane	178494-5	40 ug/l	79.0	30.0-100	B8961	14May14 1439 by 306	14May14 1823 by 301		
Indeno(1,2,3-cd)pyrene	178494-5	40 ug/l	81.2	45.0-125	B8961	14May14 1439 by 306	14May14 1823 by 301		
Isophorone	178494-5	40 ug/l	79.2	50.0-110	B8961	14May14 1439 by 306	14May14 1823 by 301		
n-Nitrosodi-n-propylamine	178494-5	40 ug/l	83.8	35.0-130	B8961	14May14 1439 by 306	14May14 1823 by 301		
n-Nitrosodimethylamine	178494-5	40 ug/l	69.0	25.0-110	B8961	14May14 1439 by 306	14May14 1823 by 301		
n-Nitrosodiphenylamine	178494-5	40 ug/l	83.2	50.0-110	B8961	14May14 1439 by 306	14May14 1823 by 301		
Naphthalene	178494-5	40 ug/l	80.9	40.0-100	B8961	14May14 1439 by 306	14May14 1823 by 301		
Nitrobenzene	178494-5	40 ug/l	86.2	45.0-110	B8961	14May14 1439 by 306	14May14 1823 by 301		
2-Nitrophenol	178494-5	40 ug/l	80.4	40.0-115	B8961	14May14 1439 by 306	14May14 1823 by 301		
4-Nitrophenol	178494-5	40 ug/l	48.9	0.00-125	B8961	14May14 1439 by 306	14May14 1823 by 301		
p-Chloro-m-cresol	178494-5	40 ug/l	82.6	45.0-110	B8961	14May14 1439 by 306	14May14 1823 by 301		
Pentachlorophenol	178494-5	40 ug/l	62.1	40.0-115	B8961	14May14 1439 by 306	14May14 1823 by 301		
Phenanthrene	178494-5	40 ug/l	83.8	50.0-115	B8961	14May14 1439 by 306	14May14 1823 by 301		
Phenol	178494-5	40 ug/l	49.9	0.00-115	B8961	14May14 1439 by 306	14May14 1823 by 301		
Pyrene	178494-5	40 ug/l	84.0	50.0-130	B8961	14May14 1439 by 306	14May14 1823 by 301		
1,2,4-Trichlorobenzene	178494-5	40 ug/l	77.6	35.0-105	B8961	14May14 1439 by 306	14May14 1823 by 301		
2,4,6-Trichlorophenol	178494-5	40 ug/l	81.4	50.0-115	B8961	14May14 1439 by 306	14May14 1823 by 301		
Base/Neutral and Acid Compounds Surrogates:									
2-Fluorobiphenyl	178494-5	40 ug/l	85.9	50.0-110	B8961	14May14 1439 by 306	14May14 1823 by 301		
2-Fluorophenol	178494-5	40 ug/l	64.4	20.0-110	B8961	14May14 1439 by 306	14May14 1823 by 301		
Nitrobenzene-D5	178494-5	40 ug/l	86.6	40.0-110	B8961	14May14 1439 by 306	14May14 1823 by 301		
Terphenyl-D14	178494-5	40 ug/l	88.7	50.0-135	B8961	14May14 1439 by 306	14May14 1823 by 301		
2,4,6-Tribromophenol	178494-5	40 ug/l	81.1	40.0-125	B8961	14May14 1439 by 306	14May14 1823 by 301		
Volatile Organic Compounds									
Acrolein	178369-3	100 ug/l	68.9	35.9-146	V8517	13May14 1031 by 301	13May14 1300 by 301		
Acrylonitrile	178369-3	100 ug/l	78.4	44.6-140	V8517	13May14 1031 by 301	13May14 1300 by 301		
Benzene	178369-3	20 ug/l	99.9	80.0-120	V8517	13May14 1031 by 301	13May14 1300 by 301		
Bromodichloromethane	178369-3	20 ug/l	91.6	75.0-120	V8517	13May14 1031 by 301	13May14 1300 by 301		
Bromoform	178369-3	20 ug/l	85.8	70.0-130	V8517	13May14 1031 by 301	13May14 1300 by 301		
Bromomethane	178369-3	20 ug/l	91.2	30.0-145	V8517	13May14 1031 by 301	13May14 1300 by 301		
Carbon tetrachloride	178369-3	20 ug/l	106	65.0-140	V8517	13May14 1031 by 301	13May14 1300 by 301		
Chlorobenzene	178369-3	20 ug/l	101	80.0-120	V8517	13May14 1031 by 301	13May14 1300 by 301		
Chloroethane	178369-3	20 ug/l	123	60.0-135	V8517	13May14 1031 by 301	13May14 1300 by 301		
2-Chloroethyl vinyl ether	178369-3	40 ug/l	95.4	37.9-154	V8517	13May14 1031 by 301	13May14 1300 by 301		
Chloroform	178369-3	20 ug/l	93.1	65.0-135	V8517	13May14 1031 by 301	13May14 1300 by 301		
Chloromethane	178369-3	20 ug/l	96.8	40.0-125	V8517	13May14 1031 by 301	13May14 1300 by 301		
Dibromochloromethane	178369-3	20 ug/l	90.5	60.0-135	V8517	13May14 1031 by 301	13May14 1300 by 301		
1,2-Dichlorobenzene	178369-3	20 ug/l	94.8	70.0-120	V8517	13May14 1031 by 301	13May14 1300 by 301		

Central Arkansas Water
338 Pleasant Valley Drive
Little Rock, AR 72212

MATRIX SPIKE SAMPLE RESULTS

Analyte	Sample	Spike Amount	%	Limits	Batch	Preparation Date	Analysis Date	Dil	Qual
Volatile Organic Compounds (Continued)									
1,3-Dichlorobenzene	178369-3	20 ug/l	98.0	75.0-125	V8517	13May14 1031 by 301	13May14 1300 by 301		
1,4-Dichlorobenzene	178369-3	20 ug/l	98.1	75.0-125	V8517	13May14 1031 by 301	13May14 1300 by 301		
1,1-Dichloroethane	178369-3	20 ug/l	110	70.0-135	V8517	13May14 1031 by 301	13May14 1300 by 301		
1,2-Dichloroethane	178369-3	20 ug/l	74.1	70.0-130	V8517	13May14 1031 by 301	14May14 1138 by 301	5	D
1,1-Dichloroethene	178369-3	20 ug/l	111	70.0-130	V8517	13May14 1031 by 301	13May14 1300 by 301		
trans-1,2-Dichloroethene	178369-3	20 ug/l	109	60.0-140	V8517	13May14 1031 by 301	13May14 1300 by 301		
1,2-Dichloropropane	178369-3	20 ug/l	97.3	75.0-125	V8517	13May14 1031 by 301	13May14 1300 by 301		
1,3-Dichloropropylene	178369-3	20 ug/l	89.9	70.0-130	V8517	13May14 1031 by 301	13May14 1300 by 301		
Ethylbenzene	178369-3	20 ug/l	98.6	75.0-125	V8517	13May14 1031 by 301	13May14 1300 by 301		
Methylene chloride	178369-3	20 ug/l	81.2	55.0-140	V8517	13May14 1031 by 301	13May14 1300 by 301		
1,1,2,2-Tetrachloroethane	178369-3	20 ug/l	83.5	65.0-130	V8517	13May14 1031 by 301	13May14 1300 by 301		
Tetrachloroethene	178369-3	20 ug/l	106	45.0-150	V8517	13May14 1031 by 301	13May14 1300 by 301		
Toluene	178369-3	20 ug/l	98.6	75.0-120	V8517	13May14 1031 by 301	13May14 1300 by 301		
1,1,1-Trichloroethane	178369-3	20 ug/l	98.4	65.0-130	V8517	13May14 1031 by 301	13May14 1300 by 301		
1,1,2-Trichloroethane	178369-3	20 ug/l	88.6	75.0-125	V8517	13May14 1031 by 301	13May14 1300 by 301		
Trichloroethene	178369-3	20 ug/l	100	70.0-125	V8517	13May14 1031 by 301	13May14 1300 by 301		
Vinyl chloride	178369-3	20 ug/l	106	50.0-145	V8517	13May14 1031 by 301	13May14 1300 by 301		
Volatile Organic Compounds Surrogates:									
4-Bromofluorobenzene	178369-3	50 ug/l	97.7	75.0-120	V8517	13May14 1031 by 301	13May14 1300 by 301		
Dibromofluoromethane	178369-3	50 ug/l	99.9	85.0-115	V8517	13May14 1031 by 301	13May14 1300 by 301		
Toluene-D8	178369-3	50 ug/l	100	85.0-120	V8517	13May14 1031 by 301	13May14 1300 by 301		
Organochlorine Pesticides and PCBs									
Aldrin	178494-5	10 ug/l	92.4	25.0-140	G9711	14May14 1153 by 306	14May14 1722 by 306		
alpha-BHC	178494-5	10 ug/l	81.5	60.0-130	G9711	14May14 1153 by 306	14May14 1722 by 306		
alpha-Endosulfan	178494-5	10 ug/l	83.1	50.0-110	G9711	14May14 1153 by 306	14May14 1722 by 306		
beta-BHC	178494-5	10 ug/l	86.2	65.0-125	G9711	14May14 1153 by 306	14May14 1722 by 306		
beta-Endosulfan	178494-5	10 ug/l	89.6	30.0-130	G9711	14May14 1153 by 306	14May14 1722 by 306		
Chlorpyrifos	178494-5	10 ug/l	97.7	47.9-138	G9711	14May14 1153 by 306	14May14 1722 by 306		
4,4'-DDD	178494-5	10 ug/l	92.3	25.0-150	G9711	14May14 1153 by 306	14May14 1722 by 306		
4,4'-DDE	178494-5	10 ug/l	88.4	35.0-140	G9711	14May14 1153 by 306	14May14 1722 by 306		
4,4'-DDT	178494-5	10 ug/l	134	45.0-140	G9711	14May14 1153 by 306	14May14 1722 by 306		
delta-BHC	178494-5	10 ug/l	92.0	45.0-135	G9711	14May14 1153 by 306	14May14 1722 by 306		
Dieldrin	178494-5	10 ug/l	95.2	60.0-130	G9711	14May14 1153 by 306	14May14 1722 by 306		
Endosulfan sulfate	178494-5	10 ug/l	95.6	55.0-135	G9711	14May14 1153 by 306	14May14 1722 by 306		
Endrin	178494-5	10 ug/l	102	55.0-135	G9711	14May14 1153 by 306	14May14 1722 by 306		
Endrin aldehyde	178494-5	10 ug/l	98.0	55.0-135	G9711	14May14 1153 by 306	14May14 1722 by 306		
gamma-BHC	178494-5	10 ug/l	89.7	25.0-135	G9711	14May14 1153 by 306	14May14 1722 by 306		
Heptachlor	178494-5	10 ug/l	96.1	40.0-130	G9711	14May14 1153 by 306	14May14 1722 by 306		



Central Arkansas Water
 338 Pleasant Valley Drive
 Little Rock, AR 72212

MATRIX SPIKE SAMPLE RESULTS

Analyte	Sample	Spike Amount	%	Limits	Batch	Preparation Date	Analysis Date	Dil	Qual
Organochlorine Pesticides and PCBs (Continued)									
Heptachlor epoxide	178494-5	10 ug/l	90.4	60.0-130	G9711	14May14 1153 by 306	14May14 1722 by 306		
Organochlorine Pesticides and PCBs Surrogates:									
Decachlorobiphenyl	178494-5	20 ug/l	109	30.0-135	G9711	14May14 1153 by 306	14May14 1722 by 306		
Tetrachloro-m-xylene	178494-5	20 ug/l	110	25.0-140	G9711	14May14 1153 by 306	14May14 1722 by 306		

Central Arkansas Water
338 Pleasant Valley Drive
Little Rock, AR 72212

LABORATORY BLANK RESULTS

Analyte	Result	RL	PQL	QC Sample	Preparation Date	Analysis Date	Qual
Total Recoverable Phenolics	< 0.005 mg/l	0.005	0.005	W47676-1	13May14 0831 by 308	13May14 1215 by 308	
Chromium, Hexavalent	< 0.007 mg/l	0.007	0.007	W47688-1	13May14 1420 by 308	13May14 1530 by 308	
Total Cyanide	< 0.01 mg/l	0.01	0.01	W47679-1	13May14 0905 by 308	13May14 1544 by 308	
Mercury, low level	< 0.0018 ug/l	0.0018	0.0050	S36804-1	16May14 0910 by 311	16May14 1056 by 311	
Total Recoverable Antimony	< 0.03 mg/l	0.03	0.03	S36787-1	13May14 1341 by 285	14May14 1707 by 305	
Total Recoverable Arsenic	< 0.0005 mg/l	0.0005	0.0005	S36787-1	13May14 1341 by 285	14May14 1707 by 305	
Total Recoverable Beryllium	< 0.0003 mg/l	0.0003	0.0003	S36787-1	13May14 1341 by 285	14May14 1707 by 305	
Total Recoverable Cadmium	< 0.0001 mg/l	0.0001	0.0001	S36787-1	13May14 1341 by 285	14May14 1707 by 305	
Total Recoverable Chromium	< 0.007 mg/l	0.007	0.007	S36787-1	13May14 1341 by 285	14May14 1707 by 305	
Total Recoverable Copper	< 0.0005 mg/l	0.0005	0.0005	S36787-1	13May14 1341 by 285	14May14 1707 by 305	
Total Recoverable Lead	< 0.0005 mg/l	0.0005	0.0005	S36787-1	13May14 1341 by 285	14May14 1707 by 305	
Total Recoverable Nickel	< 0.0005 mg/l	0.0005	0.0005	S36787-1	13May14 1341 by 285	14May14 1707 by 305	
Total Recoverable Selenium	< 0.002 mg/l	0.002	0.002	S36787-1	13May14 1341 by 285	14May14 1707 by 305	
Total Recoverable Silver	< 0.0002 mg/l	0.0002	0.0002	S36787-1	13May14 1341 by 285	14May14 1707 by 305	
Total Recoverable Thallium	< 0.0005 mg/l	0.0005	0.0005	S36787-1	13May14 1341 by 285	14May14 1707 by 305	
Total Recoverable Zinc	< 0.002 mg/l	0.002	0.002	S36787-1	13May14 1341 by 285	14May14 1707 by 305	
Base/Neutral and Acid Compounds							
Acenaphthene	< 0.83 ug/l	0.83	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
Acenaphthylene	< 0.79 ug/l	0.79	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
Anthracene	< 1.5 ug/l	1.5	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
Benzidine	< 14 ug/l	14	25	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
Benzo(a)anthracene	< 0.75 ug/l	0.75	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
Benzo(a)pyrene	< 0.63 ug/l	0.63	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
Benzo(g,h,i)perylene	< 0.79 ug/l	0.79	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
Benzo(k)fluoranthene	< 1.6 ug/l	1.6	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
3,4-Benzofluoranthene	< 1.4 ug/l	1.4	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
Bis(2-chloroethoxy)methane	< 0.80 ug/l	0.80	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
Bis(2-chloroethyl)ether	< 0.88 ug/l	0.88	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
Bis(2-chloroisopropyl)ether	< 0.94 ug/l	0.94	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
Bis(2-ethylhexyl)phthalate	< 3.8 ug/l	3.8	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
4-Bromophenyl phenyl ether	< 1.2 ug/l	1.2	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
Butylbenzyl phthalate	< 1.5 ug/l	1.5	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
2-Chloronaphthalene	< 0.84 ug/l	0.84	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
2-Chlorophenol	< 2.1 ug/l	2.1	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
4-Chlorophenyl phenyl ether	< 0.96 ug/l	0.96	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
Chrysene	< 0.83 ug/l	0.83	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
Di-n-butyl phthalate	< 1.1 ug/l	1.1	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
Di-n-octyl phthalate	< 0.70 ug/l	0.70	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
Dibenz(a,h)anthracene	< 1.2 ug/l	1.2	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
3,3'-Dichlorobenzidine	< 4.9 ug/l	4.9	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
2,4-Dichlorophenol	< 0.51 ug/l	0.51	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
Diethyl phthalate	< 0.85 ug/l	0.85	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
Dimethyl phthalate	< 0.93 ug/l	0.93	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
2,4-Dimethylphenol	< 0.79 ug/l	0.79	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
4,6-Dinitro-o-cresol	< 0.75 ug/l	0.75	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
2,4-Dinitrophenol	< 0.74 ug/l	0.74	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
2,4-Dinitrotoluene	< 0.51 ug/l	0.51	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
2,6-Dinitrotoluene	< 0.83 ug/l	0.83	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
1,2-Diphenylhydrazine	< 0.60 ug/l	0.60	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	

Central Arkansas Water
338 Pleasant Valley Drive
Little Rock, AR 72212

LABORATORY BLANK RESULTS

Analyte	Result	RL	PQL	QC Sample	Preparation Date	Analysis Date	Qual
Base/Neutral and Acid Compounds							
Fluorene	< 0.99 ug/l	0.99	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
Hexachlorobenzene	< 1.1 ug/l	1.1	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
Hexachlorobutadiene	< 0.71 ug/l	0.71	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
Hexachlorocyclopentadiene	< 0.74 ug/l	0.74	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
Hexachloroethane	< 0.73 ug/l	0.73	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
Indeno(1,2,3-cd)pyrene	< 1.2 ug/l	1.2	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
Isophorone	< 0.90 ug/l	0.90	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
n-Nitrosodi-n-propylamine	< 0.90 ug/l	0.90	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
n-Nitrosodimethylamine	< 2.5 ug/l	2.5	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
n-Nitrosodiphenylamine	< 1.1 ug/l	1.1	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	R
Naphthalene	< 0.87 ug/l	0.87	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
Nitrobenzene	< 0.85 ug/l	0.85	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
2-Nitrophenol	< 0.82 ug/l	0.82	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
4-Nitrophenol	< 0.70 ug/l	0.70	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
p-Chloro-m-cresol	< 1.7 ug/l	1.7	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
Pentachlorophenol	< 0.94 ug/l	0.94	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
Phenanthrene	< 0.93 ug/l	0.93	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
Phenol	< 2.6 ug/l	2.6	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
Pyrene	< 0.56 ug/l	0.56	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
1,2,4-Trichlorobenzene	< 0.87 ug/l	0.87	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
2,4,6-Trichlorophenol	< 1.4 ug/l	1.4	5.0	B8961-1	14May14 1439 by 306	14May14 1709 by 301	
Base/Neutral and Acid Compounds Surrogates:							
2-Fluorobiphenyl (50.0-110%)	82.0 %			B8961-1	14May14 1439 by 306	14May14 1709 by 301	
2-Fluorophenol (20.0-110%)	60.9 %			B8961-1	14May14 1439 by 306	14May14 1709 by 301	
Nitrobenzene-D5 (40.0-110%)	80.2 %			B8961-1	14May14 1439 by 306	14May14 1709 by 301	
Terphenyl-D14 (50.0-135%)	92.8 %			B8961-1	14May14 1439 by 306	14May14 1709 by 301	
2,4,6-Tribromophenol (40.0-125%)	51.6 %			B8961-1	14May14 1439 by 306	14May14 1709 by 301	
Volatile Organic Compounds							
Acrolein	< 0.78 ug/l	0.78	25	V8517-1	13May14 1031 by 301	13May14 1414 by 301	
Acrylonitrile	< 0.63 ug/l	0.63	25	V8517-1	13May14 1031 by 301	13May14 1414 by 301	
Benzene	< 0.12 ug/l	0.12	5.0	V8517-1	13May14 1031 by 301	13May14 1414 by 301	
Bromoform	< 0.26 ug/l	0.26	5.0	V8517-1	13May14 1031 by 301	13May14 1414 by 301	
Carbon tetrachloride	< 0.21 ug/l	0.21	2.0	V8517-1	13May14 1031 by 301	13May14 1414 by 301	
Chlorobenzene	< 0.11 ug/l	0.11	5.0	V8517-1	13May14 1031 by 301	13May14 1414 by 301	
Chlorodibromomethane	< 0.11 ug/l	0.11	5.0	V8517-1	13May14 1031 by 301	13May14 1414 by 301	
Chloroethane	< 0.35 ug/l	0.35	5.0	V8517-1	13May14 1031 by 301	13May14 1414 by 301	
2-Chloroethyl vinyl ether	< 0.24 ug/l	0.24	10	V8517-1	13May14 1031 by 301	13May14 1414 by 301	
Chloroform	< 0.16 ug/l	0.16	5.0	V8517-1	13May14 1031 by 301	13May14 1414 by 301	
1,2-Dichlorobenzene	< 0.17 ug/l	0.17	5.0	V8517-1	13May14 1031 by 301	13May14 1414 by 301	
1,3-Dichlorobenzene	< 0.14 ug/l	0.14	5.0	V8517-1	13May14 1031 by 301	13May14 1414 by 301	
1,4-Dichlorobenzene	< 0.19 ug/l	0.19	5.0	V8517-1	13May14 1031 by 301	13May14 1414 by 301	
Dichlorobromomethane	< 0.17 ug/l	0.17	5.0	V8517-1	13May14 1031 by 301	13May14 1414 by 301	
1,1-Dichloroethane	< 0.15 ug/l	0.15	5.0	V8517-1	13May14 1031 by 301	13May14 1414 by 301	
1,2-Dichloroethane	< 0.21 ug/l	0.21	5.0	V8517-1	13May14 1031 by 301	13May14 1414 by 301	
1,1-Dichloroethylene	< 0.24 ug/l	0.24	5.0	V8517-1	13May14 1031 by 301	13May14 1414 by 301	
trans-1,2-Dichloroethylene	< 0.20 ug/l	0.20	5.0	V8517-1	13May14 1031 by 301	13May14 1414 by 301	
1,2-Dichloropropane	< 0.19 ug/l	0.19	5.0	V8517-1	13May14 1031 by 301	13May14 1414 by 301	

Central Arkansas Water
338 Pleasant Valley Drive
Little Rock, AR 72212

LABORATORY BLANK RESULTS

Analyte	Result	RL	PQL	QC Sample	Preparation Date	Analysis Date	Qual
Volatile Organic Compounds							
1,3-Dichloropropylene	< 0.20 ug/l	0.20	5.0	V8517-1	13May14 1031 by 301	13May14 1414 by 301	
Ethylbenzene	< 0.12 ug/l	0.12	5.0	V8517-1	13May14 1031 by 301	13May14 1414 by 301	
Methyl bromide(Bromomethane)	< 0.16 ug/l	0.16	5.0	V8517-1	13May14 1031 by 301	13May14 1414 by 301	
Methyl chloride(Chloromethane)	< 0.19 ug/l	0.19	5.0	V8517-1	13May14 1031 by 301	13May14 1414 by 301	
Methylene chloride	< 0.25 ug/l	0.25	5.0	V8517-1	13May14 1031 by 301	13May14 1414 by 301	
1,1,2,2-Tetrachloroethane	< 0.20 ug/l	0.20	5.0	V8517-1	13May14 1031 by 301	13May14 1414 by 301	
Tetrachloroethylene	< 0.18 ug/l	0.18	5.0	V8517-1	13May14 1031 by 301	13May14 1414 by 301	
Toluene	< 0.16 ug/l	0.16	5.0	V8517-1	13May14 1031 by 301	13May14 1414 by 301	
1,1,1-Trichloroethane	< 0.13 ug/l	0.13	5.0	V8517-1	13May14 1031 by 301	13May14 1414 by 301	
1,1,2-Trichloroethane	< 0.19 ug/l	0.19	5.0	V8517-1	13May14 1031 by 301	13May14 1414 by 301	
Trichloroethylene	< 0.22 ug/l	0.22	5.0	V8517-1	13May14 1031 by 301	13May14 1414 by 301	
Vinyl chloride	< 0.47 ug/l	0.47	2.0	V8517-1	13May14 1031 by 301	13May14 1414 by 301	
Volatile Organic Compounds Surrogates:							
4-Bromofluorobenzene (75.0-120%)	94.1 %			V8517-1	13May14 1031 by 301	13May14 1414 by 301	
Dibromofluoromethane (85.0-115%)	106 %			V8517-1	13May14 1031 by 301	13May14 1414 by 301	
Toluene-D8 (85.0-120%)	99.1 %			V8517-1	13May14 1031 by 301	13May14 1414 by 301	
Organochlorine Pesticides and PCBs							
Aldrin	< 0.0050 ug/l	0.0050	0.010	G9711-1	14May14 1153 by 306	14May14 1659 by 306	
alpha-BHC	< 0.0050 ug/l	0.0050	0.020	G9711-1	14May14 1153 by 306	14May14 1659 by 306	
alpha-Endosulfan	< 0.0050 ug/l	0.0050	0.010	G9711-1	14May14 1153 by 306	14May14 1659 by 306	
beta-BHC	< 0.0050 ug/l	0.0050	0.020	G9711-1	14May14 1153 by 306	14May14 1659 by 306	
beta-Endosulfan	< 0.0050 ug/l	0.0050	0.020	G9711-1	14May14 1153 by 306	14May14 1659 by 306	
Chlordane	< 0.10 ug/l	0.10	0.10	G9711-1	14May14 1153 by 306	14May14 1659 by 306	
Chlorpyrifos	< 0.0050 ug/l	0.0050	0.050	G9711-1	14May14 1153 by 306	14May14 1659 by 306	
4,4'-DDD	< 0.0050 ug/l	0.0050	0.020	G9711-1	14May14 1153 by 306	14May14 1659 by 306	
4,4'-DDE	< 0.0050 ug/l	0.0050	0.020	G9711-1	14May14 1153 by 306	14May14 1659 by 306	
4,4'-DDT	< 0.0050 ug/l	0.0050	0.020	G9711-1	14May14 1153 by 306	14May14 1659 by 306	
delta-BHC	< 0.0050 ug/l	0.0050	0.020	G9711-1	14May14 1153 by 306	14May14 1659 by 306	
Dieldrin	< 0.0050 ug/l	0.0050	0.020	G9711-1	14May14 1153 by 306	14May14 1659 by 306	
Endosulfan sulfate	< 0.0050 ug/l	0.0050	0.020	G9711-1	14May14 1153 by 306	14May14 1659 by 306	
Endrin	< 0.0050 ug/l	0.0050	0.020	G9711-1	14May14 1153 by 306	14May14 1659 by 306	
Endrin aldehyde	< 0.0050 ug/l	0.0050	0.020	G9711-1	14May14 1153 by 306	14May14 1659 by 306	
gamma-BHC	< 0.0050 ug/l	0.0050	0.020	G9711-1	14May14 1153 by 306	14May14 1659 by 306	
Heptachlor	< 0.0050 ug/l	0.0050	0.010	G9711-1	14May14 1153 by 306	14May14 1659 by 306	
Heptachlor epoxide	< 0.0050 ug/l	0.0050	0.010	G9711-1	14May14 1153 by 306	14May14 1659 by 306	
PCB 1016	< 0.20 ug/l	0.20	0.20	G9711-1	14May14 1153 by 306	14May14 1659 by 306	
PCB 1221	< 0.20 ug/l	0.20	0.20	G9711-1	14May14 1153 by 306	14May14 1659 by 306	
PCB 1232	< 0.20 ug/l	0.20	0.20	G9711-1	14May14 1153 by 306	14May14 1659 by 306	
PCB 1242	< 0.20 ug/l	0.20	0.20	G9711-1	14May14 1153 by 306	14May14 1659 by 306	
PCB 1248	< 0.20 ug/l	0.20	0.20	G9711-1	14May14 1153 by 306	14May14 1659 by 306	
PCB 1254	< 0.20 ug/l	0.20	0.20	G9711-1	14May14 1153 by 306	14May14 1659 by 306	
PCB 1260	< 0.20 ug/l	0.20	0.20	G9711-1	14May14 1153 by 306	14May14 1659 by 306	
Toxaphene	< 0.20 ug/l	0.20	0.20	G9711-1	14May14 1153 by 306	14May14 1659 by 306	
Organochlorine Pesticides and PCBs Surrogates:							
Decachlorobiphenyl (30.0-135%)	84.6 %			G9711-1	14May14 1153 by 306	14May14 1659 by 306	
Tetrachloro-m-xylene (25.0-140%)	93.6 %			G9711-1	14May14 1153 by 306	14May14 1659 by 306	



CHAIN OF CUSTODY / ANALYSIS REQUEST FORM

PAGE 1 OF 1

Client: CAW		Project Reference: Sharon Sweeney		NO OF BOTTLES		ANALYSES REQUESTED		AIC CONTROL NO: 178490		AIC PROPOSAL NO:	
Project Manager: Sharon Sweeney		Sampled By: Sharon Sweeney		SAMPLE MATRIX		WATER		Carrier/Tracking No.		Received Temperature C	
AIC No. 1		Sample Identification 03335		Date/Time Collected 5-12-2014 @ 1123		X		BNA.625		185, 19.2	
AIC No. 2		Sample Identification 02215		Date/Time Collected 5-12-2014 @ 1155		X		Pest 608		Time: 1132	
AIC No. 3		Sample Identification 13263		Date/Time Collected 5-12-2014 @ 1255		X		VOA.624		Time: 1308	
								Hg. CL		Remarks	
								PHENOLICS			
								PPS metals			
								T. Cyanide			
								C6			
Container Type Preservative		G = Glass		P = Plastic		NO = none		S = Sulfuric acid pH2		T = Sodium Thiosulfate	
Field pH calibration on @		NO = none		S = Sulfuric acid pH2		NO = none		S = Nitric acid pH2		Z = Zinc acetate	
Buffer:		NO = none		S = Sulfuric acid pH2		NO = none		S = Nitric acid pH2		Z = Zinc acetate	
Turnaround Time Requested: (Please circle)		NORMAL or EXPEDITED IN _____ DAYS		Relinquished By: [Signature]		Date/Time: 5-12-2014 @ 1345		Received By: [Signature]		Date/Time: 5/13/14	
Expedited results requested by:		Who should AIC contact with questions:		Relinquished By:		Date/Time:		Received In Lab By: [Signature]		Date/Time: 5/13/14	
Phone: 501.210.4914		Fax:		Comments:							
Report Attention to: Randy Easley		338 Pleasant Valley Dr									
Report Address to: Little Rock AR 72212											



Central Arkansas Water
ATTN: Mr. Randy Easley
338 Pleasant Valley Drive
Little Rock, AR 72212

This report contains the analytical results and supporting information for samples submitted on May 22, 2014. Attached please find a copy of the Chain of Custody and/or other documents received. Note that any remaining sample will be discarded two weeks from the original report date unless other arrangements are made.

This report is intended for the sole use of the client listed above. Assessment of the data requires access to the entire document.

This report has been reviewed by the Laboratory Director or a qualified designee.



John Overbey
Laboratory Director

This document has been distributed to the following:

PDF cc: Central Arkansas Water
ATTN: Mr. Randy Easley
randy.easley@carkw.com

Central Arkansas Water
ATTN: Ms. Sharon Sweeney
sharon.sweeney@carkw.com

Central Arkansas Water
338 Pleasant Valley Drive
Little Rock, AR 72212

SAMPLE INFORMATION

Project Description:

Two (2) water sample(s) received on May 22, 2014

Receipt Details:

A Chain of Custody was provided. The samples were delivered in one (1) ice chest.

Each sample container was checked for proper labeling, including date and time sampled. Sample containers were reviewed for proper type, adequate volume, integrity, temperature, preservation, and holding times. Any exceptions are noted below:

Sample Identification:

<u>Laboratory ID</u>	<u>Client Sample ID</u>	<u>Sampled Date/Time</u>	<u>Notes</u>
178906-1	02877 5-22-14 0925	22-May-2014 0925	
178906-2	02878 5-22-14 0950	22-May-2014 0950	

Qualifiers:

- D Result is from a secondary dilution factor
- R n-Nitrosodiphenylamine cannot be separated from diphenylamine

References:

- "Methods for Chemical Analysis of Water and Wastes", EPA/600/4-79-020 (Mar 1983) with updates and supplements EPA/600/5-91-010 (Jun 1991), EPA/600/R-92-129 (Aug 1992) and EPA/600/R-93-100 (Aug 1993).
- "Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW846)", Third Edition.
- "Standard Methods for the Examination of Water and Wastewaters", (SM).
- "American Society for Testing and Materials" (ASTM).
- "Association of Analytical Chemists" (AOAC).

Central Arkansas Water
338 Pleasant Valley Drive
Little Rock, AR 72212

ANALYTICAL RESULTS

AIC No. 178906-1

Sample Identification: 02877 5-22-14 0925

Analyte	Result	RL	Units	Qualifier
Total Recoverable Phenolics EPA 420.1	22	5	ug/l	
Prep: 23-May-2014 0748 by 308	Analyzed: 23-May-2014 1050 by 308		Batch: W47826	
Chromium, Hexavalent SM 3500-Cr B 2009	< 10	10	ug/l	
Prep: 22-May-2014 1524 by 93	Analyzed: 22-May-2014 1600 by 93		Batch: W47818	
Total Cyanide SM 4500-CN C,E 1999	< 10	10	ug/l	
Prep: 23-May-2014 0747 by 308	Analyzed: 23-May-2014 1230 by 308		Batch: W47825	
Mercury, low level EPA 245.7	< 0.0050	0.0050	ug/l	
Prep: 23-May-2014 1204 by 311	Analyzed: 23-May-2014 1259 by 311		Batch: S36846	
Total Recoverable Antimony EPA 200.8	< 60	60	ug/l	
Prep: 28-May-2014 1453 by 285	Analyzed: 03-Jun-2014 1429 by 305		Batch: S36864	
Total Recoverable Arsenic EPA 200.8	0.65	0.5	ug/l	
Prep: 28-May-2014 1453 by 285	Analyzed: 03-Jun-2014 1429 by 305		Batch: S36864	
Total Recoverable Beryllium EPA 200.8	< 0.5	0.5	ug/l	
Prep: 28-May-2014 1453 by 285	Analyzed: 03-Jun-2014 1429 by 305		Batch: S36864	
Total Recoverable Cadmium EPA 200.8	< 0.5	0.5	ug/l	
Prep: 28-May-2014 1453 by 285	Analyzed: 03-Jun-2014 1429 by 305		Batch: S36864	
Total Recoverable Chromium EPA 200.8	< 10	10	ug/l	
Prep: 28-May-2014 1453 by 285	Analyzed: 03-Jun-2014 1429 by 305		Batch: S36864	
Total Recoverable Copper EPA 200.8	4.0	0.5	ug/l	
Prep: 28-May-2014 1453 by 285	Analyzed: 03-Jun-2014 1429 by 305		Batch: S36864	
Total Recoverable Lead EPA 200.8	< 0.5	0.5	ug/l	
Prep: 28-May-2014 1453 by 285	Analyzed: 03-Jun-2014 1429 by 305		Batch: S36864	
Total Recoverable Nickel EPA 200.8	0.84	0.5	ug/l	
Prep: 28-May-2014 1453 by 285	Analyzed: 03-Jun-2014 1429 by 305		Batch: S36864	
Total Recoverable Selenium EPA 200.8	< 5	5	ug/l	
Prep: 28-May-2014 1453 by 285	Analyzed: 03-Jun-2014 1429 by 305		Batch: S36864	
Total Recoverable Silver EPA 200.8	< 0.5	0.5	ug/l	
Prep: 28-May-2014 1453 by 285	Analyzed: 03-Jun-2014 1429 by 305		Batch: S36864	
Total Recoverable Thallium EPA 200.8	< 0.5	0.5	ug/l	
Prep: 28-May-2014 1453 by 285	Analyzed: 03-Jun-2014 1429 by 305		Batch: S36864	
Total Recoverable Zinc EPA 200.8	29	20	ug/l	
Prep: 28-May-2014 1453 by 285	Analyzed: 03-Jun-2014 1429 by 305		Batch: S36864	
Base/Neutral and Acid Compounds By EPA 625				
Acenaphthene EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
Acenaphthylene EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
Anthracene EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
Benzidine EPA 625	< 50	50	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	

Central Arkansas Water
338 Pleasant Valley Drive
Little Rock, AR 72212

ANALYTICAL RESULTS

AIC No. 178906-1 (Continued)

Sample Identification: 02877 5-22-14 0925

Analyte	Result	RL	Units	Qualifier
Base/Neutral and Acid Compounds By EPA 625 (Continued)				
Benzo(a)anthracene EPA 625	< 5.0	5.0	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
Benzo(a)pyrene EPA 625	< 5.0	5.0	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
Benzo(g,h,i)perylene EPA 625	< 20	20	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
Benzo(k)fluoranthene EPA 625	< 5.0	5.0	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
3,4-Benzofluoranthene EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
Bis(2-chloroethoxy)methane EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
Bis(2-chloroethyl)ether EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
Bis(2-chloroisopropyl)ether EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
Bis(2-ethylhexyl)phthalate EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
4-Bromophenyl phenyl ether EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
Butylbenzyl phthalate EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
2-Chloronaphthalene EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
2-Chlorophenol EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
4-Chlorophenyl phenyl ether EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
Chrysene EPA 625	< 5.0	5.0	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
Di-n-butyl phthalate EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
Di-n-octyl phthalate EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
Dibenz(a,h)anthracene EPA 625	< 5.0	5.0	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
3,3'-Dichlorobenzidine EPA 625	< 5.0	5.0	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
2,4-Dichlorophenol EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	

Central Arkansas Water
 338 Pleasant Valley Drive
 Little Rock, AR 72212

ANALYTICAL RESULTS

AIC No. 178906-1 (Continued)

Sample Identification: 02877 5-22-14 0925

Analyte	Result	RL	Units	Qualifier
Base/Neutral and Acid Compounds By EPA 625 (Continued)				
Diethyl phthalate EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
Dimethyl phthalate EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
2,4-Dimethylphenol EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
4,6-Dinitro-o-cresol EPA 625	< 50	50	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
2,4-Dinitrophenol EPA 625	< 50	50	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
2,4-Dinitrotoluene EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
2,6-Dinitrotoluene EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
1,2-Diphenylhydrazine EPA 625	< 20	20	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
Fluorene EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
Hexachlorobenzene EPA 625	< 5.0	5.0	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
Hexachlorobutadiene EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
Hexachlorocyclopentadiene EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
Hexachloroethane EPA 625	< 20	20	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
Indeno(1,2,3-cd)pyrene EPA 625	< 5.0	5.0	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
Isophorone EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
n-Nitrosodi-n-propylamine EPA 625	< 20	20	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
n-Nitrosodimethylamine EPA 625	< 50	50	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
n-Nitrosodiphenylamine EPA 625	< 20	20	ug/l	R
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
Naphthalene EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
Nitrobenzene EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	

Central Arkansas Water
 338 Pleasant Valley Drive
 Little Rock, AR 72212

ANALYTICAL RESULTS
AIC No. 178906-1 (Continued)
Sample Identification: 02877 5-22-14 0925

Analyte		Result	RL	Units	Qualifier
Base/Neutral and Acid Compounds By EPA 625 (Continued)					
2-Nitrophenol		< 20	20	ug/l	
EPA 625	Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
4-Nitrophenol		< 50	50	ug/l	
EPA 625	Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
p-Chloro-m-cresol		< 10	10	ug/l	
EPA 625	Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
Pentachlorophenol		< 5.0	5.0	ug/l	
EPA 625	Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
Phenanthrene		< 10	10	ug/l	
EPA 625	Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
Phenol		< 10	10	ug/l	
EPA 625	Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
Pyrene		< 10	10	ug/l	
EPA 625	Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
1,2,4-Trichlorobenzene		< 10	10	ug/l	
EPA 625	Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
2,4,6-Trichlorophenol		< 10	10	ug/l	
EPA 625	Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
Surrogate: 2-Fluorobiphenyl (50.0-110%)		87.0		%	
EPA 625	Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
Surrogate: 2-Fluorophenol (20.0-110%)		64.0		%	
EPA 625	Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
Surrogate: Nitrobenzene-D5 (40.0-110%)		89.9		%	
EPA 625	Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
Surrogate: Terphenyl-D14 (50.0-135%)		77.6		%	
EPA 625	Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
Surrogate: 2,4,6-Tribromophenol (40.0-125%)		66.5		%	
EPA 625	Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2020 by 301		Batch: B8986	
Volatile Organic Compounds By EPA 624					
Acrolein		< 50	50	ug/l	
EPA 624	Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1835 by 301		Batch: V8521	
Acrylonitrile		< 20	20	ug/l	
EPA 624	Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1835 by 301		Batch: V8521	
Benzene		< 10	10	ug/l	
EPA 624	Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1835 by 301		Batch: V8521	
Bromoform		< 10	10	ug/l	
EPA 624	Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1835 by 301		Batch: V8521	
Carbon tetrachloride		< 2.0	2.0	ug/l	
EPA 624	Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1835 by 301		Batch: V8521	

Central Arkansas Water
 338 Pleasant Valley Drive
 Little Rock, AR 72212

ANALYTICAL RESULTS
AIC No. 178906-1 (Continued)
Sample Identification: 02877 5-22-14 0925

Analyte	Result	RL	Units	Qualifier
Volatile Organic Compounds By EPA 624 (Continued)				
Chlorobenzene EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1835 by 301		Batch: V8521	
Chlorodibromomethane EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1835 by 301		Batch: V8521	
Chloroethane EPA 624	< 50	50	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1835 by 301		Batch: V8521	
2-Chloroethyl vinyl ether EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1835 by 301		Batch: V8521	
Chloroform EPA 624	17	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1835 by 301		Batch: V8521	
1,2-Dichlorobenzene EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1835 by 301		Batch: V8521	
1,3-Dichlorobenzene EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1835 by 301		Batch: V8521	
1,4-Dichlorobenzene EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1835 by 301		Batch: V8521	
Dichlorobromomethane EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1835 by 301		Batch: V8521	
1,1-Dichloroethane EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1835 by 301		Batch: V8521	
1,2-Dichloroethane EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1835 by 301		Batch: V8521	
1,1-Dichloroethylene EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1835 by 301		Batch: V8521	
trans-1,2-Dichloroethylene EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1835 by 301		Batch: V8521	
1,2-Dichloropropane EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1835 by 301		Batch: V8521	
1,3-Dichloropropylene EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1835 by 301		Batch: V8521	
Ethylbenzene EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1835 by 301		Batch: V8521	
Methyl bromide(Bromomethane) EPA 624	< 50	50	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1835 by 301		Batch: V8521	
Methyl chloride(Chloromethane) EPA 624	< 50	50	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1835 by 301		Batch: V8521	
Methylene chloride EPA 624	< 20	20	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1835 by 301		Batch: V8521	
1,1,2,2-Tetrachloroethane EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1835 by 301		Batch: V8521	

Central Arkansas Water
338 Pleasant Valley Drive
Little Rock, AR 72212

ANALYTICAL RESULTS

AIC No. 178906-1 (Continued)

Sample Identification: 02877 5-22-14 0925

Analyte	Result	RL	Units	Qualifier
Volatile Organic Compounds By EPA 624 (Continued)				
Tetrachloroethylene EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1835 by 301		Batch: V8521	
Toluene EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1835 by 301		Batch: V8521	
1,1,1-Trichloroethane EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1835 by 301		Batch: V8521	
1,1,2-Trichloroethane EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1835 by 301		Batch: V8521	
Trichloroethylene EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1835 by 301		Batch: V8521	
Vinyl chloride EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1835 by 301		Batch: V8521	
Surrogate: 4-Bromofluorobenzene (75.0-120%) EPA 624	93.8		%	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1835 by 301		Batch: V8521	
Surrogate: Dibromofluoromethane (85.0-115%) EPA 624	111		%	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1835 by 301		Batch: V8521	
Surrogate: Toluene-D8 (85.0-120%) EPA 624	99.5		%	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1835 by 301		Batch: V8521	
Organochlorine Pesticides and PCBs By EPA 608				
Aldrin EPA 608	< 0.010	0.010	ug/l	
Prep: 22-May-2014 1419 by 295	Analyzed: 22-May-2014 1914 by 306		Batch: G9720	
alpha-BHC EPA 608	< 0.050	0.050	ug/l	
Prep: 22-May-2014 1419 by 295	Analyzed: 22-May-2014 1914 by 306		Batch: G9720	
alpha-Endosulfan EPA 608	< 0.010	0.010	ug/l	
Prep: 22-May-2014 1419 by 295	Analyzed: 22-May-2014 1914 by 306		Batch: G9720	
beta-BHC EPA 608	< 0.050	0.050	ug/l	
Prep: 22-May-2014 1419 by 295	Analyzed: 22-May-2014 1914 by 306		Batch: G9720	
beta-Endosulfan EPA 608	< 0.020	0.020	ug/l	
Prep: 22-May-2014 1419 by 295	Analyzed: 22-May-2014 1914 by 306		Batch: G9720	
Chlordane EPA 608	< 0.20	0.20	ug/l	
Prep: 22-May-2014 1419 by 295	Analyzed: 22-May-2014 1914 by 306		Batch: G9720	
Chlorpyrifos EPA 608	< 0.070	0.070	ug/l	
Prep: 22-May-2014 1419 by 295	Analyzed: 22-May-2014 1914 by 306		Batch: G9720	
4,4'-DDD EPA 608	< 0.10	0.10	ug/l	
Prep: 22-May-2014 1419 by 295	Analyzed: 22-May-2014 1914 by 306		Batch: G9720	
4,4'-DDE EPA 608	< 0.10	0.10	ug/l	
Prep: 22-May-2014 1419 by 295	Analyzed: 22-May-2014 1914 by 306		Batch: G9720	
4,4'-DDT EPA 608	< 0.020	0.020	ug/l	
Prep: 22-May-2014 1419 by 295	Analyzed: 22-May-2014 1914 by 306		Batch: G9720	

Central Arkansas Water
 338 Pleasant Valley Drive
 Little Rock, AR 72212

ANALYTICAL RESULTS
AIC No. 178906-1 (Continued)
Sample Identification: 02877 5-22-14 0925

Analyte	Result	RL	Units	Qualifier
Organochlorine Pesticides and PCBs By EPA 608 (Continued)				
delta-BHC EPA 608	< 0.050 Prep: 22-May-2014 1419 by 295 Analyzed: 22-May-2014 1914 by 306	0.050	ug/l Batch: G9720	
Dieldrin EPA 608	< 0.020 Prep: 22-May-2014 1419 by 295 Analyzed: 22-May-2014 1914 by 306	0.020	ug/l Batch: G9720	
Endosulfan sulfate EPA 608	< 0.10 Prep: 22-May-2014 1419 by 295 Analyzed: 22-May-2014 1914 by 306	0.10	ug/l Batch: G9720	
Endrin EPA 608	< 0.020 Prep: 22-May-2014 1419 by 295 Analyzed: 22-May-2014 1914 by 306	0.020	ug/l Batch: G9720	
Endrin aldehyde EPA 608	< 0.10 Prep: 22-May-2014 1419 by 295 Analyzed: 22-May-2014 1914 by 306	0.10	ug/l Batch: G9720	
gamma-BHC EPA 608	< 0.050 Prep: 22-May-2014 1419 by 295 Analyzed: 22-May-2014 1914 by 306	0.050	ug/l Batch: G9720	
Heptachlor EPA 608	< 0.010 Prep: 22-May-2014 1419 by 295 Analyzed: 22-May-2014 1914 by 306	0.010	ug/l Batch: G9720	
Heptachlor epoxide EPA 608	< 0.010 Prep: 22-May-2014 1419 by 295 Analyzed: 22-May-2014 1914 by 306	0.010	ug/l Batch: G9720	
PCB 1016 EPA 608	< 0.20 Prep: 22-May-2014 1419 by 295 Analyzed: 22-May-2014 1914 by 306	0.20	ug/l Batch: G9720	
PCB 1221 EPA 608	< 0.20 Prep: 22-May-2014 1419 by 295 Analyzed: 22-May-2014 1914 by 306	0.20	ug/l Batch: G9720	
PCB 1232 EPA 608	< 0.20 Prep: 22-May-2014 1419 by 295 Analyzed: 22-May-2014 1914 by 306	0.20	ug/l Batch: G9720	
PCB 1242 EPA 608	< 0.20 Prep: 22-May-2014 1419 by 295 Analyzed: 22-May-2014 1914 by 306	0.20	ug/l Batch: G9720	
PCB 1248 EPA 608	< 0.20 Prep: 22-May-2014 1419 by 295 Analyzed: 22-May-2014 1914 by 306	0.20	ug/l Batch: G9720	
PCB 1254 EPA 608	< 0.20 Prep: 22-May-2014 1419 by 295 Analyzed: 22-May-2014 1914 by 306	0.20	ug/l Batch: G9720	
PCB 1260 EPA 608	< 0.20 Prep: 22-May-2014 1419 by 295 Analyzed: 22-May-2014 1914 by 306	0.20	ug/l Batch: G9720	
Toxaphene EPA 608	< 0.30 Prep: 22-May-2014 1419 by 295 Analyzed: 22-May-2014 1914 by 306	0.30	ug/l Batch: G9720	
Surrogate: Decachlorobiphenyl (30.0-135%) EPA 608	111 Prep: 22-May-2014 1419 by 295 Analyzed: 22-May-2014 1914 by 306		% Batch: G9720	
Surrogate: Tetrachloro-m-xylene (25.0-140%) EPA 608	93.4 Prep: 22-May-2014 1419 by 295 Analyzed: 22-May-2014 1914 by 306		% Batch: G9720	

Central Arkansas Water
 338 Pleasant Valley Drive
 Little Rock, AR 72212

ANALYTICAL RESULTS
AIC No. 178906-2

Sample Identification: 02878 5-22-14 0950

Analyte	Result	RL	Units	Qualifier
Total Recoverable Phenolics EPA 420.1	< 5	5	ug/l	
Prep: 23-May-2014 0748 by 308	Analyzed: 23-May-2014 1050 by 308		Batch: W47826	
Chromium, Hexavalent SM 3500-Cr B 2009	< 10	10	ug/l	
Prep: 22-May-2014 1524 by 93	Analyzed: 22-May-2014 1600 by 93		Batch: W47818	
Total Cyanide SM 4500-CN C,E 1999	< 10	10	ug/l	
Prep: 23-May-2014 0747 by 308	Analyzed: 23-May-2014 1232 by 308		Batch: W47825	
Mercury, low level EPA 245.7	< 0.0050	0.0050	ug/l	
Prep: 23-May-2014 1204 by 311	Analyzed: 23-May-2014 1310 by 311		Batch: S36846	
Total Recoverable Antimony EPA 200.8	< 60	60	ug/l	
Prep: 28-May-2014 1453 by 285	Analyzed: 03-Jun-2014 1558 by 305		Batch: S36864	
Total Recoverable Arsenic EPA 200.8	0.77	0.5	ug/l	
Prep: 28-May-2014 1453 by 285	Analyzed: 03-Jun-2014 1558 by 305		Batch: S36864	
Total Recoverable Beryllium EPA 200.8	< 0.5	0.5	ug/l	
Prep: 28-May-2014 1453 by 285	Analyzed: 03-Jun-2014 1558 by 305		Batch: S36864	
Total Recoverable Cadmium EPA 200.8	< 0.5	0.5	ug/l	
Prep: 28-May-2014 1453 by 285	Analyzed: 03-Jun-2014 1558 by 305		Batch: S36864	
Total Recoverable Chromium EPA 200.8	< 10	10	ug/l	
Prep: 28-May-2014 1453 by 285	Analyzed: 03-Jun-2014 1558 by 305		Batch: S36864	
Total Recoverable Copper EPA 200.8	1.7	0.5	ug/l	
Prep: 28-May-2014 1453 by 285	Analyzed: 03-Jun-2014 1558 by 305		Batch: S36864	
Total Recoverable Lead EPA 200.8	< 0.5	0.5	ug/l	
Prep: 28-May-2014 1453 by 285	Analyzed: 03-Jun-2014 1558 by 305		Batch: S36864	
Total Recoverable Nickel EPA 200.8	1.0	0.5	ug/l	
Prep: 28-May-2014 1453 by 285	Analyzed: 03-Jun-2014 1558 by 305		Batch: S36864	
Total Recoverable Selenium EPA 200.8	< 5	5	ug/l	
Prep: 28-May-2014 1453 by 285	Analyzed: 03-Jun-2014 1558 by 305		Batch: S36864	
Total Recoverable Silver EPA 200.8	< 0.5	0.5	ug/l	
Prep: 28-May-2014 1453 by 285	Analyzed: 03-Jun-2014 1558 by 305		Batch: S36864	
Total Recoverable Thallium EPA 200.8	< 0.5	0.5	ug/l	
Prep: 28-May-2014 1453 by 285	Analyzed: 03-Jun-2014 1558 by 305		Batch: S36864	
Total Recoverable Zinc EPA 200.8	31	20	ug/l	
Prep: 28-May-2014 1453 by 285	Analyzed: 03-Jun-2014 1558 by 305		Batch: S36864	
Base/Neutral and Acid Compounds By EPA 625				
Acenaphthene EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
Acenaphthylene EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
Anthracene EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
Benzidine EPA 625	< 50	50	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	

Central Arkansas Water
338 Pleasant Valley Drive
Little Rock, AR 72212

ANALYTICAL RESULTS

AIC No. 178906-2 (Continued)

Sample Identification: 02878 5-22-14 0950

Analyte	Result	RL	Units	Qualifier
Base/Neutral and Acid Compounds By EPA 625 (Continued)				
Benzo(a)anthracene EPA 625	< 5.0	5.0	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
Benzo(a)pyrene EPA 625	< 5.0	5.0	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
Benzo(g,h,i)perylene EPA 625	< 20	20	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
Benzo(k)fluoranthene EPA 625	< 5.0	5.0	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
3,4-Benzofluoranthene EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
Bis(2-chloroethoxy)methane EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
Bis(2-chloroethyl)ether EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
Bis(2-chloroisopropyl)ether EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
Bis(2-ethylhexyl)phthalate EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
4-Bromophenyl phenyl ether EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
Butylbenzyl phthalate EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
2-Chloronaphthalene EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
2-Chlorophenol EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
4-Chlorophenyl phenyl ether EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
Chrysene EPA 625	< 5.0	5.0	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
Di-n-butyl phthalate EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
Di-n-octyl phthalate EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
Dibenz(a,h)anthracene EPA 625	< 5.0	5.0	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
3,3'-Dichlorobenzidine EPA 625	< 5.0	5.0	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
2,4-Dichlorophenol EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	

Central Arkansas Water
338 Pleasant Valley Drive
Little Rock, AR 72212

ANALYTICAL RESULTS

AIC No. 178906-2 (Continued)

Sample Identification: 02878 5-22-14 0950

Analyte	Result	RL	Units	Qualifier
Base/Neutral and Acid Compounds By EPA 625 (Continued)				
Diethyl phthalate EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
Dimethyl phthalate EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
2,4-Dimethylphenol EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
4,6-Dinitro-o-cresol EPA 625	< 50	50	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
2,4-Dinitrophenol EPA 625	< 50	50	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
2,4-Dinitrotoluene EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
2,6-Dinitrotoluene EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
1,2-Diphenylhydrazine EPA 625	< 20	20	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
Fluorene EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
Hexachlorobenzene EPA 625	< 5.0	5.0	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
Hexachlorobutadiene EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
Hexachlorocyclopentadiene EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
Hexachloroethane EPA 625	< 20	20	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
Indeno(1,2,3-cd)pyrene EPA 625	< 5.0	5.0	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
Isophorone EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
n-Nitrosodi-n-propylamine EPA 625	< 20	20	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
n-Nitrosodimethylamine EPA 625	< 50	50	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
n-Nitrosodiphenylamine EPA 625	< 20	20	ug/l	R
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
Naphthalene EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
Nitrobenzene EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	

Central Arkansas Water
 338 Pleasant Valley Drive
 Little Rock, AR 72212

ANALYTICAL RESULTS
AIC No. 178906-2 (Continued)
Sample Identification: 02878 5-22-14 0950

Analyte	Result	RL	Units	Qualifier
Base/Neutral and Acid Compounds By EPA 625 (Continued)				
2-Nitrophenol EPA 625	< 20	20	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
4-Nitrophenol EPA 625	< 50	50	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
p-Chloro-m-cresol EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
Pentachlorophenol EPA 625	< 5.0	5.0	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
Phenanthrene EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
Phenol EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
Pyrene EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
1,2,4-Trichlorobenzene EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
2,4,6-Trichlorophenol EPA 625	< 10	10	ug/l	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
Surrogate: 2-Fluorobiphenyl (50.0-110%) EPA 625	78.4		%	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
Surrogate: 2-Fluorophenol (20.0-110%) EPA 625	59.1		%	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
Surrogate: Nitrobenzene-D5 (40.0-110%) EPA 625	82.6		%	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
Surrogate: Terphenyl-D14 (50.0-135%) EPA 625	62.2		%	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
Surrogate: 2,4,6-Tribromophenol (40.0-125%) EPA 625	63.3		%	
Prep: 22-May-2014 1453 by 295	Analyzed: 23-May-2014 2103 by 301		Batch: B8986	
Volatile Organic Compounds By EPA 624				
Acrolein EPA 624	< 50	50	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1920 by 301		Batch: V8521	
Acrylonitrile EPA 624	< 20	20	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1920 by 301		Batch: V8521	
Benzene EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1920 by 301		Batch: V8521	
Bromoform EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1920 by 301		Batch: V8521	
Carbon tetrachloride EPA 624	< 2.0	2.0	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1920 by 301		Batch: V8521	

Central Arkansas Water
 338 Pleasant Valley Drive
 Little Rock, AR 72212

ANALYTICAL RESULTS

AIC No. 178906-2 (Continued)

Sample Identification: 02878 5-22-14 0950

Analyte	Result	RL	Units	Qualifier
Volatile Organic Compounds By EPA 624 (Continued)				
Chlorobenzene EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1920 by 301		Batch: V8521	
Chlorodibromomethane EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1920 by 301		Batch: V8521	
Chloroethane EPA 624	< 50	50	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1920 by 301		Batch: V8521	
2-Chloroethyl vinyl ether EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1920 by 301		Batch: V8521	
Chloroform EPA 624	23	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1920 by 301		Batch: V8521	
1,2-Dichlorobenzene EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1920 by 301		Batch: V8521	
1,3-Dichlorobenzene EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1920 by 301		Batch: V8521	
1,4-Dichlorobenzene EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1920 by 301		Batch: V8521	
Dichlorobromomethane EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1920 by 301		Batch: V8521	
1,1-Dichloroethane EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1920 by 301		Batch: V8521	
1,2-Dichloroethane EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1920 by 301		Batch: V8521	
1,1-Dichloroethylene EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1920 by 301		Batch: V8521	
trans-1,2-Dichloroethylene EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1920 by 301		Batch: V8521	
1,2-Dichloropropane EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1920 by 301		Batch: V8521	
1,3-Dichloropropylene EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1920 by 301		Batch: V8521	
Ethylbenzene EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1920 by 301		Batch: V8521	
Methyl bromide(Bromomethane) EPA 624	< 50	50	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1920 by 301		Batch: V8521	
Methyl chloride(Chloromethane) EPA 624	< 50	50	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1920 by 301		Batch: V8521	
Methylene chloride EPA 624	< 20	20	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1920 by 301		Batch: V8521	
1,1,2,2-Tetrachloroethane EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1920 by 301		Batch: V8521	

Central Arkansas Water
 338 Pleasant Valley Drive
 Little Rock, AR 72212

ANALYTICAL RESULTS
AIC No. 178906-2 (Continued)

Sample Identification: 02878 5-22-14 0950

Analyte	Result	RL	Units	Qualifier
Volatile Organic Compounds By EPA 624 (Continued)				
Tetrachloroethylene EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1920 by 301		Batch: V8521	
Toluene EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1920 by 301		Batch: V8521	
1,1,1-Trichloroethane EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1920 by 301		Batch: V8521	
1,1,2-Trichloroethane EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1920 by 301		Batch: V8521	
Trichloroethylene EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1920 by 301		Batch: V8521	
Vinyl chloride EPA 624	< 10	10	ug/l	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1920 by 301		Batch: V8521	
Surrogate: 4-Bromofluorobenzene (75.0-120%) EPA 624	96.0		%	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1920 by 301		Batch: V8521	
Surrogate: Dibromofluoromethane (85.0-115%) EPA 624	110		%	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1920 by 301		Batch: V8521	
Surrogate: Toluene-D8 (85.0-120%) EPA 624	97.4		%	
Prep: 22-May-2014 1336 by 301	Analyzed: 22-May-2014 1920 by 301		Batch: V8521	
Organochlorine Pesticides and PCBs By EPA 608				
Aldrin EPA 608	< 0.010	0.010	ug/l	
Prep: 22-May-2014 1419 by 295	Analyzed: 22-May-2014 1926 by 306		Batch: G9720	
alpha-BHC EPA 608	< 0.050	0.050	ug/l	
Prep: 22-May-2014 1419 by 295	Analyzed: 22-May-2014 1926 by 306		Batch: G9720	
alpha-Endosulfan EPA 608	< 0.010	0.010	ug/l	
Prep: 22-May-2014 1419 by 295	Analyzed: 22-May-2014 1926 by 306		Batch: G9720	
beta-BHC EPA 608	< 0.050	0.050	ug/l	
Prep: 22-May-2014 1419 by 295	Analyzed: 22-May-2014 1926 by 306		Batch: G9720	
beta-Endosulfan EPA 608	< 0.020	0.020	ug/l	
Prep: 22-May-2014 1419 by 295	Analyzed: 22-May-2014 1926 by 306		Batch: G9720	
Chlordane EPA 608	< 0.20	0.20	ug/l	
Prep: 22-May-2014 1419 by 295	Analyzed: 22-May-2014 1926 by 306		Batch: G9720	
Chlorpyrifos EPA 608	< 0.070	0.070	ug/l	
Prep: 22-May-2014 1419 by 295	Analyzed: 22-May-2014 1926 by 306		Batch: G9720	
4,4'-DDD EPA 608	< 0.10	0.10	ug/l	
Prep: 22-May-2014 1419 by 295	Analyzed: 22-May-2014 1926 by 306		Batch: G9720	
4,4'-DDE EPA 608	< 0.10	0.10	ug/l	
Prep: 22-May-2014 1419 by 295	Analyzed: 22-May-2014 1926 by 306		Batch: G9720	
4,4'-DDT EPA 608	< 0.020	0.020	ug/l	
Prep: 22-May-2014 1419 by 295	Analyzed: 22-May-2014 1926 by 306		Batch: G9720	

Central Arkansas Water
338 Pleasant Valley Drive
Little Rock, AR 72212

ANALYTICAL RESULTS

AIC No. 178906-2 (Continued)

Sample Identification: 02878 5-22-14 0950

Analyte	Result	RL	Units	Qualifier
Organochlorine Pesticides and PCBs By EPA 608 (Continued)				
delta-BHC EPA 608	< 0.050	0.050	ug/l	
Prep: 22-May-2014 1419 by 295	Analyzed: 22-May-2014 1926 by 306		Batch: G9720	
Dieldrin EPA 608	< 0.020	0.020	ug/l	
Prep: 22-May-2014 1419 by 295	Analyzed: 22-May-2014 1926 by 306		Batch: G9720	
Endosulfan sulfate EPA 608	< 0.10	0.10	ug/l	
Prep: 22-May-2014 1419 by 295	Analyzed: 22-May-2014 1926 by 306		Batch: G9720	
Endrin EPA 608	< 0.020	0.020	ug/l	
Prep: 22-May-2014 1419 by 295	Analyzed: 22-May-2014 1926 by 306		Batch: G9720	
Endrin aldehyde EPA 608	< 0.10	0.10	ug/l	
Prep: 22-May-2014 1419 by 295	Analyzed: 22-May-2014 1926 by 306		Batch: G9720	
gamma-BHC EPA 608	< 0.050	0.050	ug/l	
Prep: 22-May-2014 1419 by 295	Analyzed: 22-May-2014 1926 by 306		Batch: G9720	
Heptachlor EPA 608	< 0.010	0.010	ug/l	
Prep: 22-May-2014 1419 by 295	Analyzed: 22-May-2014 1926 by 306		Batch: G9720	
Heptachlor epoxide EPA 608	< 0.010	0.010	ug/l	
Prep: 22-May-2014 1419 by 295	Analyzed: 22-May-2014 1926 by 306		Batch: G9720	
PCB 1016 EPA 608	< 0.20	0.20	ug/l	
Prep: 22-May-2014 1419 by 295	Analyzed: 22-May-2014 1926 by 306		Batch: G9720	
PCB 1221 EPA 608	< 0.20	0.20	ug/l	
Prep: 22-May-2014 1419 by 295	Analyzed: 22-May-2014 1926 by 306		Batch: G9720	
PCB 1232 EPA 608	< 0.20	0.20	ug/l	
Prep: 22-May-2014 1419 by 295	Analyzed: 22-May-2014 1926 by 306		Batch: G9720	
PCB 1242 EPA 608	< 0.20	0.20	ug/l	
Prep: 22-May-2014 1419 by 295	Analyzed: 22-May-2014 1926 by 306		Batch: G9720	
PCB 1248 EPA 608	< 0.20	0.20	ug/l	
Prep: 22-May-2014 1419 by 295	Analyzed: 22-May-2014 1926 by 306		Batch: G9720	
PCB 1254 EPA 608	< 0.20	0.20	ug/l	
Prep: 22-May-2014 1419 by 295	Analyzed: 22-May-2014 1926 by 306		Batch: G9720	
PCB 1260 EPA 608	< 0.20	0.20	ug/l	
Prep: 22-May-2014 1419 by 295	Analyzed: 22-May-2014 1926 by 306		Batch: G9720	
Toxaphene EPA 608	< 0.30	0.30	ug/l	
Prep: 22-May-2014 1419 by 295	Analyzed: 22-May-2014 1926 by 306		Batch: G9720	
Surrogate: Decachlorobiphenyl (30.0-135%) EPA 608	109		%	
Prep: 22-May-2014 1419 by 295	Analyzed: 22-May-2014 1926 by 306		Batch: G9720	
Surrogate: Tetrachloro-m-xylene (25.0-140%) EPA 608	86.2		%	
Prep: 22-May-2014 1419 by 295	Analyzed: 22-May-2014 1926 by 306		Batch: G9720	

Central Arkansas Water
 338 Pleasant Valley Drive
 Little Rock, AR 72212

DUPLICATE RESULTS

Analyte	AIC No.	Result	RPD	RPD Limit	Preparation Date	Analysis Date	Dil	Qual
Base/Neutral and Acid Compounds								
Acenaphthene	178860-3	< 0.83 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 0.83 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
Acenaphthylene	178860-3	< 5.0 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 5.0 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
Anthracene	178860-3	< 1.5 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 1.5 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
Benzidine	178860-3	< 25 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 25 ug/l	0.00	0.00	22May14 0904 by 295	22May14 1401 by 301		
Benzo(a)anthracene	178860-3	< 0.75 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 0.75 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
Benzo(a)pyrene	178860-3	< 0.63 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 0.63 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
Benzo(b)fluoranthene	178860-3	< 1.4 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 1.4 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
Benzo(g,h,i)perylene	178860-3	< 0.79 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 0.79 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
Benzo(k)fluoranthene	178860-3	< 1.6 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 1.6 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
bis(2-Chloroethoxy)Methane	178860-3	< 5.0 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 5.0 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
bis(2-Chloroethyl)Ether	178860-3	< 5.0 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 5.0 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
bis(2-Chloroisopropyl)Ether	178860-3	< 5.0 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 5.0 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
bis(2-Ethylhexyl)Phthalate	178860-3	< 5.0 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 5.0 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
4-Bromophenyl phenyl ether	178860-3	< 5.0 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 5.0 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
Butyl benzyl phthalate	178860-3	< 5.0 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 5.0 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
4-Chloro-3-methylphenol	178860-3	< 5.0 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 5.0 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
2-Chloronaphthalene	178860-3	< 5.0 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 5.0 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
2-Chlorophenol	178860-3	< 5.0 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 5.0 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
4-Chlorophenyl phenyl ether	178860-3	< 5.0 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 5.0 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
Chrysene	178860-3	< 0.83 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 0.83 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
Di-n-butyl phthalate	178860-3	< 5.0 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 5.0 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
Di-n-octyl phthalate	178860-3	< 5.0 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 5.0 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
Dibenz(a,h)anthracene	178860-3	< 1.2 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 1.2 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		

Central Arkansas Water
338 Pleasant Valley Drive
Little Rock, AR 72212

DUPLICATE RESULTS

Analyte	AIC No.	Result	RPD	RPD Limit	Preparation Date	Analysis Date	Dil	Qual
3,3'-Dichlorobenzidine	178860-3	< 5.0 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 5.0 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
2,4-Dichlorophenol	178860-3	< 5.0 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 5.0 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
Diethyl phthalate	178860-3	< 5.0 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 5.0 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
Dimethyl phthalate	178860-3	< 5.0 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 5.0 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
2,4-Dimethylphenol	178860-3	< 5.0 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 5.0 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
4,6-Dinitro-2-methylphenol	178860-3	< 5.0 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 5.0 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
2,4-Dinitrophenol	178860-3	< 5.0 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 5.0 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
2,4-Dinitrotoluene	178860-3	< 5.0 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 5.0 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
2,6-Dinitrotoluene	178860-3	< 5.0 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 5.0 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
1,2-Diphenylhydrazine	178860-3	< 5.0 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 5.0 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
Fluorene	178860-3	< 0.99 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 0.99 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
Hexachlorobenzene	178860-3	< 5.0 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 5.0 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
Hexachlorobutadiene	178860-3	< 5.0 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 5.0 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
Hexachlorocyclopentadiene	178860-3	< 5.0 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 5.0 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
Hexachloroethane	178860-3	< 5.0 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 5.0 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
Indeno(1,2,3-cd)pyrene	178860-3	< 1.2 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 1.2 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
Isophorone	178860-3	< 5.0 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 5.0 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
N-Nitroso-di-n-propylamine	178860-3	< 5.0 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 5.0 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
n-Nitrosodimethylamine	178860-3	< 5.0 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 5.0 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
n-Nitrosodiphenylamine	178860-3	< 5.0 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 5.0 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		R R
Naphthalene	178860-3	< 0.87 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 0.87 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
Nitrobenzene	178860-3	< 5.0 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 5.0 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
2-Nitrophenol	178860-3	< 5.0 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 5.0 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
4-Nitrophenol	178860-3	< 5.0 ug/l			22May14 0903 by 295	22May14 1512 by 301		
	Batch: B8986 Duplicate	< 5.0 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		

Central Arkansas Water
 338 Pleasant Valley Drive
 Little Rock, AR 72212

DUPLICATE RESULTS

Analyte	AIC No.	Result	RPD	RPD Limit	Preparation Date	Analysis Date	Dil	Qual	
Base/Neutral and Acid Compounds (Continued)									
Pentachlorophenol	178860-3	< 0.94 ug/l			22May14 0903 by 295	22May14 1512 by 301			
	Batch: B8986	Duplicate	< 0.94 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
Phenanthrene	178860-3	< 0.93 ug/l			22May14 0903 by 295	22May14 1512 by 301			
	Batch: B8986	Duplicate	< 0.93 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
Phenol	178860-3	< 5.0 ug/l			22May14 0903 by 295	22May14 1512 by 301			
	Batch: B8986	Duplicate	< 5.0 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
Pyrene	178860-3	< 0.56 ug/l			22May14 0903 by 295	22May14 1512 by 301			
	Batch: B8986	Duplicate	< 0.56 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
1,2,4-Trichlorobenzene	178860-3	< 5.0 ug/l			22May14 0903 by 295	22May14 1512 by 301			
	Batch: B8986	Duplicate	< 5.0 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
2,4,6-Trichlorophenol	178860-3	< 5.0 ug/l			22May14 0903 by 295	22May14 1512 by 301			
	Batch: B8986	Duplicate	< 5.0 ug/l	0.00	30.0	22May14 0904 by 295	22May14 1401 by 301		
2-Fluorobiphenyl (50.0-110%)	178860-3	83.1 %			22May14 0903 by 295	22May14 1512 by 301			
	Batch: B8986	Duplicate	77.0 %		22May14 0904 by 295	22May14 1401 by 301			
2-Fluorophenol (20.0-110%)	178860-3	60.5 %			22May14 0903 by 295	22May14 1512 by 301			
	Batch: B8986	Duplicate	59.4 %		22May14 0904 by 295	22May14 1401 by 301			
Nitrobenzene-D5 (40.0-110%)	178860-3	82.9 %			22May14 0903 by 295	22May14 1512 by 301			
	Batch: B8986	Duplicate	74.3 %		22May14 0904 by 295	22May14 1401 by 301			
Terphenyl-D14 (50.0-135%)	178860-3	77.4 %			22May14 0903 by 295	22May14 1512 by 301			
	Batch: B8986	Duplicate	77.8 %		22May14 0904 by 295	22May14 1401 by 301			
2,4,6-Tribromophenol (40.0-125%)	178860-3	75.0 %			22May14 0903 by 295	22May14 1512 by 301			
	Batch: B8986	Duplicate	80.7 %		22May14 0904 by 295	22May14 1401 by 301			
Volatile Organic Compounds									
Acrolein	178842-1	< 0.50 mg/l			22May14 1006 by 301	22May14 1358 by 301	100	D	
	Batch: V8521	Duplicate	< 0.50 mg/l	0.00	30.0	22May14 1006 by 301	22May14 1436 by 301	100	D
Acrylonitrile	178842-1	< 0.50 mg/l			22May14 1006 by 301	22May14 1358 by 301	100	D	
	Batch: V8521	Duplicate	< 0.50 mg/l	0.00	30.0	22May14 1006 by 301	22May14 1436 by 301	100	D
Benzene	178842-1	< 0.50 mg/l			22May14 1006 by 301	22May14 1358 by 301	100	D	
	Batch: V8521	Duplicate	< 0.50 mg/l	0.00	30.0	22May14 1006 by 301	22May14 1436 by 301	100	D
Bromodichloromethane	178842-1	< 0.50 mg/l			22May14 1006 by 301	22May14 1358 by 301	100	D	
	Batch: V8521	Duplicate	< 0.50 mg/l	0.00	30.0	22May14 1006 by 301	22May14 1436 by 301	100	D
Bromoform	178842-1	< 0.50 mg/l			22May14 1006 by 301	22May14 1358 by 301	100	D	
	Batch: V8521	Duplicate	< 0.50 mg/l	0.00	30.0	22May14 1006 by 301	22May14 1436 by 301	100	D
Bromomethane	178842-1	< 0.50 mg/l			22May14 1006 by 301	22May14 1358 by 301	100	D	
	Batch: V8521	Duplicate	< 0.50 mg/l	0.00	30.0	22May14 1006 by 301	22May14 1436 by 301	100	D
Carbon tetrachloride	178842-1	< 0.20 mg/l			22May14 1006 by 301	22May14 1358 by 301	100	D	
	Batch: V8521	Duplicate	< 0.20 mg/l	0.00	30.0	22May14 1006 by 301	22May14 1436 by 301	100	D
Chlorobenzene	178842-1	< 0.50 mg/l			22May14 1006 by 301	22May14 1358 by 301	100	D	
	Batch: V8521	Duplicate	< 0.50 mg/l	0.00	30.0	22May14 1006 by 301	22May14 1436 by 301	100	D
Chloroethane	178842-1	< 0.50 mg/l			22May14 1006 by 301	22May14 1358 by 301	100	D	
	Batch: V8521	Duplicate	< 0.50 mg/l	0.00	30.0	22May14 1006 by 301	22May14 1436 by 301	100	D
2-Chloroethyl vinyl ether	178842-1	< 0.50 mg/l			22May14 1006 by 301	22May14 1358 by 301	100	D	
	Batch: V8521	Duplicate	< 0.50 mg/l	0.00	20.0	22May14 1006 by 301	22May14 1436 by 301	100	D
Chloroform	178842-1	< 0.50 mg/l			22May14 1006 by 301	22May14 1358 by 301	100	D	
	Batch: V8521	Duplicate	< 0.50 mg/l	0.00	30.0	22May14 1006 by 301	22May14 1436 by 301	100	D
Chloromethane	178842-1	< 0.50 mg/l			22May14 1006 by 301	22May14 1358 by 301	100	D	
	Batch: V8521	Duplicate	< 0.50 mg/l	0.00	30.0	22May14 1006 by 301	22May14 1436 by 301	100	D

Central Arkansas Water
 338 Pleasant Valley Drive
 Little Rock, AR 72212

DUPLICATE RESULTS

Analyte	AIC No.	Result	RPD	RPD Limit	Preparation Date	Analysis Date	Dil	Qual
Volatile Organic Compounds (Continued)								
Dibromochloromethane	178842-1	< 0.50 mg/l			22May14 1006 by 301	22May14 1358 by 301	100	D
	Batch: V8521	Duplicate < 0.50 mg/l	0.00	30.0	22May14 1006 by 301	22May14 1436 by 301	100	D
1,2-Dichlorobenzene	178842-1	< 0.50 mg/l			22May14 1006 by 301	22May14 1358 by 301	100	D
	Batch: V8521	Duplicate < 0.50 mg/l	0.00	30.0	22May14 1006 by 301	22May14 1436 by 301	100	D
1,3-Dichlorobenzene	178842-1	< 0.50 mg/l			22May14 1006 by 301	22May14 1358 by 301	100	D
	Batch: V8521	Duplicate < 0.50 mg/l	0.00	30.0	22May14 1006 by 301	22May14 1436 by 301	100	D
1,4-Dichlorobenzene	178842-1	< 0.50 mg/l			22May14 1006 by 301	22May14 1358 by 301	100	D
	Batch: V8521	Duplicate < 0.50 mg/l	0.00	30.0	22May14 1006 by 301	22May14 1436 by 301	100	D
1,1-Dichloroethane	178842-1	< 0.50 mg/l			22May14 1006 by 301	22May14 1358 by 301	100	D
	Batch: V8521	Duplicate < 0.50 mg/l	0.00	30.0	22May14 1006 by 301	22May14 1436 by 301	100	D
1,2-Dichloroethane	178842-1	< 0.50 mg/l			22May14 1006 by 301	22May14 1358 by 301	100	D
	Batch: V8521	Duplicate < 0.50 mg/l	0.00	30.0	22May14 1006 by 301	22May14 1436 by 301	100	D
trans-1,2-Dichloroethene	178842-1	< 0.50 mg/l			22May14 1006 by 301	22May14 1358 by 301	100	D
	Batch: V8521	Duplicate < 0.50 mg/l	0.00	30.0	22May14 1006 by 301	22May14 1436 by 301	100	D
1,1-Dichloroethylene	178842-1	< 0.50 mg/l			22May14 1006 by 301	22May14 1358 by 301	100	D
	Batch: V8521	Duplicate < 0.50 mg/l	0.00	30.0	22May14 1006 by 301	22May14 1436 by 301	100	D
1,2-Dichloropropane	178842-1	< 0.50 mg/l			22May14 1006 by 301	22May14 1358 by 301	100	D
	Batch: V8521	Duplicate < 0.50 mg/l	0.00	30.0	22May14 1006 by 301	22May14 1436 by 301	100	D
1,3-Dichloropropylene	178842-1	< 0.10 mg/l			22May14 1006 by 301	22May14 1358 by 301	100	D
	Batch: V8521	Duplicate < 0.10 mg/l	0.00	30.0	22May14 1006 by 301	22May14 1436 by 301	100	D
Ethylbenzene	178842-1	< 0.50 mg/l			22May14 1006 by 301	22May14 1358 by 301	100	D
	Batch: V8521	Duplicate < 0.50 mg/l	0.00	30.0	22May14 1006 by 301	22May14 1436 by 301	100	D
Methylene chloride	178842-1	< 0.50 mg/l			22May14 1006 by 301	22May14 1358 by 301	100	D
	Batch: V8521	Duplicate < 0.50 mg/l	0.00	30.0	22May14 1006 by 301	22May14 1436 by 301	100	D
1,1,2,2-Tetrachloroethane	178842-1	< 0.50 mg/l			22May14 1006 by 301	22May14 1358 by 301	100	D
	Batch: V8521	Duplicate < 0.50 mg/l	0.00	30.0	22May14 1006 by 301	22May14 1436 by 301	100	D
Tetrachloroethylene	178842-1	< 0.50 mg/l			22May14 1006 by 301	22May14 1358 by 301	100	D
	Batch: V8521	Duplicate < 0.50 mg/l	0.00	30.0	22May14 1006 by 301	22May14 1436 by 301	100	D
Toluene	178842-1	< 0.50 mg/l			22May14 1006 by 301	22May14 1358 by 301	100	D
	Batch: V8521	Duplicate < 0.50 mg/l	0.00	30.0	22May14 1006 by 301	22May14 1436 by 301	100	D
1,1,1-Trichloroethane	178842-1	< 0.50 mg/l			22May14 1006 by 301	22May14 1358 by 301	100	D
	Batch: V8521	Duplicate < 0.50 mg/l	0.00	30.0	22May14 1006 by 301	22May14 1436 by 301	100	D
1,1,2-Trichloroethane	178842-1	< 0.50 mg/l			22May14 1006 by 301	22May14 1358 by 301	100	D
	Batch: V8521	Duplicate < 0.50 mg/l	0.00	30.0	22May14 1006 by 301	22May14 1436 by 301	100	D
Trichloroethylene	178842-1	< 0.50 mg/l			22May14 1006 by 301	22May14 1358 by 301	100	D
	Batch: V8521	Duplicate < 0.50 mg/l	0.00	30.0	22May14 1006 by 301	22May14 1436 by 301	100	D
Vinyl chloride	178842-1	< 0.20 mg/l			22May14 1006 by 301	22May14 1358 by 301	100	D
	Batch: V8521	Duplicate < 0.20 mg/l	0.00	30.0	22May14 1006 by 301	22May14 1436 by 301	100	D
4-Bromofluorobenzene (75.0-120%)	178842-1	95.7 %			22May14 1006 by 301	22May14 1358 by 301	100	D
	Batch: V8521	Duplicate 94.8 %			22May14 1006 by 301	22May14 1436 by 301	100	D
Dibromofluoromethane (85.0-115%)	178842-1	109 %			22May14 1006 by 301	22May14 1358 by 301	100	D
	Batch: V8521	Duplicate 108 %			22May14 1006 by 301	22May14 1436 by 301	100	D
Toluene-D8 (85.0-120%)	178842-1	98.6 %			22May14 1006 by 301	22May14 1358 by 301	100	D
	Batch: V8521	Duplicate 99.3 %			22May14 1006 by 301	22May14 1436 by 301	100	D

Central Arkansas Water
338 Pleasant Valley Drive
Little Rock, AR 72212

LABORATORY CONTROL SAMPLE RESULTS

Analyte	Spike Amount	%	Limits	RPD	Limit	Batch	Preparation Date	Analysis Date	Dil	Qual
Total Recoverable Phenolics	0.1 mg/l	91.6	85.0-115			W47826	23May14 0748 by 308	23May14 1050 by 308		
Chromium, Hexavalent	0.05 mg/l	106	80.0-120			W47818	22May14 1200 by 93	22May14 1300 by 93		
Total Cyanide	0.1 mg/l	94.7	85.0-115			W47825	23May14 0747 by 308	23May14 1200 by 308		
Mercury, low level	0.01 ug/l	105	76.0-113			S36846	23May14 1204 by 311	23May14 1239 by 311		
Total Recoverable Antimony	0.05 mg/l	102	85.0-115			S36864	28May14 1454 by 285	03Jun14 1414 by 305		
Total Recoverable Arsenic	0.05 mg/l	93.1	85.0-115			S36864	28May14 1454 by 285	03Jun14 1414 by 305		
Total Recoverable Beryllium	0.05 mg/l	96.9	85.0-115			S36864	28May14 1454 by 285	03Jun14 1414 by 305		
Total Recoverable Cadmium	0.05 mg/l	105	85.0-115			S36864	28May14 1454 by 285	03Jun14 1414 by 305		
Total Recoverable Chromium	0.05 mg/l	93.7	85.0-115			S36864	28May14 1454 by 285	03Jun14 1414 by 305		
Total Recoverable Copper	0.05 mg/l	99.8	85.0-115			S36864	28May14 1454 by 285	03Jun14 1414 by 305		
Total Recoverable Lead	0.05 mg/l	103	85.0-115			S36864	28May14 1454 by 285	03Jun14 1414 by 305		
Total Recoverable Nickel	0.05 mg/l	100	85.0-115			S36864	28May14 1454 by 285	03Jun14 1414 by 305		
Total Recoverable Selenium	0.05 mg/l	104	85.0-115			S36864	28May14 1454 by 285	03Jun14 1414 by 305		
Total Recoverable Silver	0.02 mg/l	102	85.0-115			S36864	28May14 1454 by 285	03Jun14 1414 by 305		
Total Recoverable Thallium	0.05 mg/l	106	85.0-115			S36864	28May14 1454 by 285	03Jun14 1414 by 305		
Total Recoverable Zinc	0.05 mg/l	102	85.0-115			S36864	28May14 1454 by 285	03Jun14 1414 by 305		
Base/Neutral and Acid Compounds										
Acenaphthene	40 ug/l	78.4	45.0-110			B8986	22May14 0904 by 295	22May14 1248 by 301		
Acenaphthylene	40 ug/l	82.4	50.0-105			B8986	22May14 0904 by 295	22May14 1248 by 301		
Anthracene	40 ug/l	81.4	55.0-110			B8986	22May14 0904 by 295	22May14 1248 by 301		
Benzidine	100 ug/l	14.4	0.00-61.1			B8986	22May14 0904 by 295	22May14 1248 by 301		
Benzo(a)anthracene	40 ug/l	82.3	55.0-110			B8986	22May14 0904 by 295	22May14 1248 by 301		
Benzo(a)pyrene	40 ug/l	83.4	55.0-110			B8986	22May14 0904 by 295	22May14 1248 by 301		
Benzo(g,h,i)perylene	40 ug/l	64.4	40.0-125			B8986	22May14 0904 by 295	22May14 1248 by 301		
Benzo(k)fluoranthene	40 ug/l	88.0	45.0-125			B8986	22May14 0904 by 295	22May14 1248 by 301		
3,4-Benzofluoranthene	40 ug/l	88.4	45.0-120			B8986	22May14 0904 by 295	22May14 1248 by 301		
Bis(2-chloroethoxy)methane	40 ug/l	76.6	45.0-105			B8986	22May14 0904 by 295	22May14 1248 by 301		
Bis(2-chloroethyl)ether	40 ug/l	82.4	35.0-110			B8986	22May14 0904 by 295	22May14 1248 by 301		
Bis(2-chloroisopropyl)ether	40 ug/l	86.8	25.0-130			B8986	22May14 0904 by 295	22May14 1248 by 301		
Bis(2-ethylhexyl)phthalate	40 ug/l	106	40.0-125			B8986	22May14 0904 by 295	22May14 1248 by 301		
4-Bromophenyl phenyl ether	40 ug/l	72.3	50.0-115			B8986	22May14 0904 by 295	22May14 1248 by 301		
Butylbenzyl phthalate	40 ug/l	94.1	45.0-115			B8986	22May14 0904 by 295	22May14 1248 by 301		
2-Chloronaphthalene	40 ug/l	77.0	50.0-105			B8986	22May14 0904 by 295	22May14 1248 by 301		
2-Chlorophenol	40 ug/l	76.9	35.0-105			B8986	22May14 0904 by 295	22May14 1248 by 301		
4-Chlorophenyl phenyl ether	40 ug/l	76.5	50.0-110			B8986	22May14 0904 by 295	22May14 1248 by 301		
Chrysene	40 ug/l	82.8	55.0-110			B8986	22May14 0904 by 295	22May14 1248 by 301		
Di-n-butyl phthalate	40 ug/l	100	55.0-115			B8986	22May14 0904 by 295	22May14 1248 by 301		
Di-n-octyl phthalate	40 ug/l	99.3	35.0-135			B8986	22May14 0904 by 295	22May14 1248 by 301		
Dibenz(a,h)anthracene	40 ug/l	65.8	40.0-125			B8986	22May14 0904 by 295	22May14 1248 by 301		
1,2-Dichlorobenzene	40 ug/l	76.5	35.0-100			B8986	22May14 0904 by 295	22May14 1248 by 301		
1,3-Dichlorobenzene	40 ug/l	76.4	30.0-100			B8986	22May14 0904 by 295	22May14 1248 by 301		

Central Arkansas Water
 338 Pleasant Valley Drive
 Little Rock, AR 72212

LABORATORY CONTROL SAMPLE RESULTS

Analyte	Spike Amount	%	Limits	RPD	Limit	Batch	Preparation Date	Analysis Date	Dil	Qual
Base/Neutral and Acid Compounds (Continued)										
1,4-Dichlorobenzene	40 ug/l	75.6	30.0-100			B8986	22May14 0904 by 295	22May14 1248 by 301		
3,3'-Dichlorobenzidine	40 ug/l	89.2	20.0-110			B8986	22May14 0904 by 295	22May14 1248 by 301		
2,4-Dichlorophenol	40 ug/l	72.9	50.0-105			B8986	22May14 0904 by 295	22May14 1248 by 301		
Diethyl phthalate	40 ug/l	89.9	40.0-120			B8986	22May14 0904 by 295	22May14 1248 by 301		
Dimethyl phthalate	40 ug/l	87.2	25.0-125			B8986	22May14 0904 by 295	22May14 1248 by 301		
2,4-Dimethylphenol	40 ug/l	70.7	30.0-110			B8986	22May14 0904 by 295	22May14 1248 by 301		
4,6-Dinitro-o-cresol	40 ug/l	50.8	40.0-130			B8986	22May14 0904 by 295	22May14 1248 by 301		
2,4-Dinitrophenol	40 ug/l	21.2	15.0-140			B8986	22May14 0904 by 295	22May14 1248 by 301		
2,4-Dinitrotoluene	40 ug/l	77.2	50.0-120			B8986	22May14 0904 by 295	22May14 1248 by 301		
2,6-Dinitrotoluene	40 ug/l	78.4	50.0-115			B8986	22May14 0904 by 295	22May14 1248 by 301		
1,2-Diphenylhydrazine	40 ug/l	82.0	55.0-115			B8986	22May14 0904 by 295	22May14 1248 by 301		
Fluorene	40 ug/l	82.8	50.0-110			B8986	22May14 0904 by 295	22May14 1248 by 301		
Hexachlorobenzene	40 ug/l	74.0	50.0-110			B8986	22May14 0904 by 295	22May14 1248 by 301		
Hexachlorobutadiene	40 ug/l	73.0	25.0-105			B8986	22May14 0904 by 295	22May14 1248 by 301		
Hexachlorocyclopentadiene	40 ug/l	67.0	35.0-102			B8986	22May14 0904 by 295	22May14 1248 by 301		
Hexachloroethane	40 ug/l	76.9	30.0-100			B8986	22May14 0904 by 295	22May14 1248 by 301		
Indeno(1,2,3-cd)pyrene	40 ug/l	65.4	45.0-125			B8986	22May14 0904 by 295	22May14 1248 by 301		
Isophorone	40 ug/l	80.0	50.0-110			B8986	22May14 0904 by 295	22May14 1248 by 301		
n-Nitrosodi-n-propylamine	40 ug/l	84.7	35.0-130			B8986	22May14 0904 by 295	22May14 1248 by 301		
n-Nitrosodimethylamine	40 ug/l	63.7	25.0-110			B8986	22May14 0904 by 295	22May14 1248 by 301		
n-Nitrosodiphenylamine	40 ug/l	73.9	50.0-110			B8986	22May14 0904 by 295	22May14 1248 by 301		
Naphthalene	40 ug/l	79.7	40.0-100			B8986	22May14 0904 by 295	22May14 1248 by 301		
Nitrobenzene	40 ug/l	78.0	45.0-110			B8986	22May14 0904 by 295	22May14 1248 by 301		
2-Nitrophenol	40 ug/l	71.7	40.0-115			B8986	22May14 0904 by 295	22May14 1248 by 301		
4-Nitrophenol	40 ug/l	44.5	0.00-125			B8986	22May14 0904 by 295	22May14 1248 by 301		
p-Chloro-m-cresol	40 ug/l	76.6	45.0-110			B8986	22May14 0904 by 295	22May14 1248 by 301		
Pentachlorophenol	40 ug/l	49.4	40.0-115			B8986	22May14 0904 by 295	22May14 1248 by 301		
Phenanthrene	40 ug/l	84.1	50.0-115			B8986	22May14 0904 by 295	22May14 1248 by 301		
Phenol	40 ug/l	44.6	0.00-115			B8986	22May14 0904 by 295	22May14 1248 by 301		
Pyrene	40 ug/l	63.5	50.0-130			B8986	22May14 0904 by 295	22May14 1248 by 301		
1,2,4-Trichlorobenzene	40 ug/l	70.9	35.0-105			B8986	22May14 0904 by 295	22May14 1248 by 301		
2,4,6-Trichlorophenol	40 ug/l	73.9	50.0-115			B8986	22May14 0904 by 295	22May14 1248 by 301		
Base/Neutral and Acid Compounds Surrogates:										
2-Fluorobiphenyl	40 ug/l	78.7	50.0-110			B8986	22May14 0904 by 295	22May14 1248 by 301		
2-Fluorophenol	40 ug/l	60.0	20.0-110			B8986	22May14 0904 by 295	22May14 1248 by 301		
Nitrobenzene-D5	40 ug/l	76.5	40.0-110			B8986	22May14 0904 by 295	22May14 1248 by 301		
Terphenyl-D14	40 ug/l	69.0	50.0-135			B8986	22May14 0904 by 295	22May14 1248 by 301		
2,4,6-Tribromophenol	40 ug/l	72.6	40.0-125			B8986	22May14 0904 by 295	22May14 1248 by 301		
Volatile Organic Compounds										
Acrolein	100 ug/l	81.5	33.0-154			V8521	22May14 1006 by 301	22May14 1123 by 301		

Central Arkansas Water
 338 Pleasant Valley Drive
 Little Rock, AR 72212

LABORATORY CONTROL SAMPLE RESULTS

Analyte	Spike Amount	%	Limits	RPD	Limit	Batch	Preparation Date	Analysis Date	Dil	Qual
Volatile Organic Compounds (Continued)										
Acrylonitrile	100 ug/l	105	64.4-133			V8521	22May14 1006 by 301	22May14 1123 by 301		
Benzene	20 ug/l	90.2	80.0-120			V8521	22May14 1006 by 301	22May14 1123 by 301		
Bromodichloromethane	20 ug/l	85.8	75.0-120			V8521	22May14 1006 by 301	22May14 1123 by 301		
Bromoform	20 ug/l	80.2	70.0-130			V8521	22May14 1006 by 301	22May14 1123 by 301		
Bromomethane	20 ug/l	85.8	30.0-145			V8521	22May14 1006 by 301	22May14 1123 by 301		
Carbon tetrachloride	20 ug/l	86.0	65.0-140			V8521	22May14 1006 by 301	22May14 1123 by 301		
Chlorobenzene	20 ug/l	87.2	80.0-120			V8521	22May14 1006 by 301	22May14 1123 by 301		
Chloroethane	20 ug/l	115	60.0-135			V8521	22May14 1006 by 301	22May14 1123 by 301		
2-Chloroethyl vinyl ether	40 ug/l	91.7	69.9-126			V8521	22May14 1006 by 301	22May14 1123 by 301		
Chloroform	20 ug/l	92.4	65.0-135			V8521	22May14 1006 by 301	22May14 1123 by 301		
Chloromethane	20 ug/l	83.0	40.0-125			V8521	22May14 1006 by 301	22May14 1123 by 301		
Dibromochloromethane	20 ug/l	82.4	60.0-135			V8521	22May14 1006 by 301	22May14 1123 by 301		
1,2-Dichlorobenzene	20 ug/l	83.8	70.0-120			V8521	22May14 1006 by 301	22May14 1123 by 301		
1,3-Dichlorobenzene	20 ug/l	84.2	75.0-125			V8521	22May14 1006 by 301	22May14 1123 by 301		
1,4-Dichlorobenzene	20 ug/l	85.3	75.0-125			V8521	22May14 1006 by 301	22May14 1123 by 301		
1,1-Dichloroethane	20 ug/l	103	70.0-135			V8521	22May14 1006 by 301	22May14 1123 by 301		
1,2-Dichloroethane	20 ug/l	91.4	70.0-130			V8521	22May14 1006 by 301	22May14 1123 by 301		
1,1-Dichloroethene	20 ug/l	102	70.0-130			V8521	22May14 1006 by 301	22May14 1123 by 301		
trans-1,2-Dichloroethene	20 ug/l	101	60.0-140			V8521	22May14 1006 by 301	22May14 1123 by 301		
1,2-Dichloropropane	20 ug/l	91.2	75.0-125			V8521	22May14 1006 by 301	22May14 1123 by 301		
1,3-Dichloropropylene	20 ug/l	83.4	70.0-130			V8521	22May14 1006 by 301	22May14 1123 by 301		
Ethylbenzene	20 ug/l	82.8	75.0-125			V8521	22May14 1006 by 301	22May14 1123 by 301		
Methylene chloride	20 ug/l	82.0	55.0-140			V8521	22May14 1006 by 301	22May14 1123 by 301		
1,1,2,2-Tetrachloroethane	20 ug/l	85.1	65.0-130			V8521	22May14 1006 by 301	22May14 1123 by 301		
Tetrachloroethene	20 ug/l	85.4	45.0-150			V8521	22May14 1006 by 301	22May14 1123 by 301		
Toluene	20 ug/l	87.5	75.0-120			V8521	22May14 1006 by 301	22May14 1123 by 301		
1,1,1-Trichloroethane	20 ug/l	91.9	65.0-130			V8521	22May14 1006 by 301	22May14 1123 by 301		
1,1,2-Trichloroethane	20 ug/l	87.5	75.0-125			V8521	22May14 1006 by 301	22May14 1123 by 301		
Trichloroethene	20 ug/l	89.5	70.0-125			V8521	22May14 1006 by 301	22May14 1123 by 301		
Vinyl chloride	20 ug/l	108	50.0-145			V8521	22May14 1006 by 301	22May14 1123 by 301		
Volatile Organic Compounds Surrogates:										
4-Bromofluorobenzene	50 ug/l	97.3	75.0-120			V8521	22May14 1006 by 301	22May14 1123 by 301		
Dibromofluoromethane	50 ug/l	108	85.0-115			V8521	22May14 1006 by 301	22May14 1123 by 301		
Toluene-D8	50 ug/l	98.2	85.0-120			V8521	22May14 1006 by 301	22May14 1123 by 301		
Organochlorine Pesticides and PCBs										
Aldrin	10 ug/l	90.5	25.0-140			G9720	22May14 1413 by 295	22May14 1815 by 306		
alpha-BHC	10 ug/l	97.8	60.0-130			G9720	22May14 1413 by 295	22May14 1815 by 306		
alpha-Endosulfan	10 ug/l	97.6	50.0-110			G9720	22May14 1413 by 295	22May14 1815 by 306		
beta-BHC	10 ug/l	97.8	65.0-125			G9720	22May14 1413 by 295	22May14 1815 by 306		

Central Arkansas Water
338 Pleasant Valley Drive
Little Rock, AR 72212

LABORATORY CONTROL SAMPLE RESULTS

Analyte	Spike Amount	%	Limits	RPD	Limit	Batch	Preparation Date	Analysis Date	Dil	Qual
Organochlorine Pesticides and PCBs (Continued)										
beta-Endosulfan	10 ug/l	100	30.0-130			G9720	22May14 1413 by 295	22May14 1815 by 306		
Chlorpyrifos	10 ug/l	100	55.4-122			G9720	22May14 1413 by 295	22May14 1815 by 306		
4,4'-DDD	10 ug/l	97.5	25.0-150			G9720	22May14 1413 by 295	22May14 1815 by 306		
4,4'-DDE	10 ug/l	97.4	35.0-140			G9720	22May14 1413 by 295	22May14 1815 by 306		
4,4'-DDT	10 ug/l	109	45.0-140			G9720	22May14 1413 by 295	22May14 1815 by 306		
delta-BHC	10 ug/l	100	45.0-135			G9720	22May14 1413 by 295	22May14 1815 by 306		
Dieldrin	10 ug/l	98.6	60.0-130			G9720	22May14 1413 by 295	22May14 1815 by 306		
Endosulfan sulfate	10 ug/l	102	55.0-135			G9720	22May14 1413 by 295	22May14 1815 by 306		
Endrin	10 ug/l	101	55.0-135			G9720	22May14 1413 by 295	22May14 1815 by 306		
Endrin aldehyde	10 ug/l	99.0	55.0-135			G9720	22May14 1413 by 295	22May14 1815 by 306		
gamma-BHC	10 ug/l	96.1	25.0-135			G9720	22May14 1413 by 295	22May14 1815 by 306		
Heptachlor	10 ug/l	93.5	40.0-130			G9720	22May14 1413 by 295	22May14 1815 by 306		
Heptachlor epoxide	10 ug/l	96.4	60.0-130			G9720	22May14 1413 by 295	22May14 1815 by 306		
Organochlorine Pesticides and PCBs Surrogates:										
Decachlorobiphenyl	20 ug/l	102	30.0-135			G9720	22May14 1413 by 295	22May14 1815 by 306		
Tetrachloro-m-xylene	20 ug/l	94.0	25.0-140			G9720	22May14 1413 by 295	22May14 1815 by 306		

Central Arkansas Water
338 Pleasant Valley Drive
Little Rock, AR 72212

MATRIX SPIKE SAMPLE RESULTS

Analyte	Sample	Spike Amount	%	Limits	Batch	Preparation Date	Analysis Date	Dil	Qual
Total Recoverable Phenolics	178906-1	0.1 mg/l	88.6	80.0-120	W47826	23May14 0748 by 308	23May14 1050 by 308		
	178906-1	0.1 mg/l	87.9	80.0-120	W47826	23May14 0748 by 308	23May14 1050 by 308		
	Relative Percent Difference:		0.638	10.0	W47826				
Chromium, Hexavalent	178818-1	0.05 mg/l	96.6	80.0-120	W47818	22May14 1200 by 93	22May14 1300 by 93		
	178818-1	0.05 mg/l	97.6	80.0-120	W47818	22May14 1200 by 93	22May14 1300 by 93		
	Relative Percent Difference:		1.03	25.0	W47818				
Total Cyanide	178854-1	0.1 mg/l	84.5	75.0-125	W47825	23May14 0747 by 308	23May14 1204 by 308		
	178854-1	0.1 mg/l	87.4	75.0-125	W47825	23May14 0747 by 308	23May14 1206 by 308		
	Relative Percent Difference:		3.37	20.0	W47825				
Mercury, low level	178910-1	0.01 ug/l	101	63.0-111	S36846	23May14 1204 by 311	23May14 1244 by 311		
	178910-1	0.01 ug/l	102	63.0-111	S36846	23May14 1204 by 311	23May14 1249 by 311		
	Relative Percent Difference:		0.597	18.0	S36846				
Total Recoverable Antimony	178906-1	0.05 mg/l	100	75.0-125	S36864	28May14 1454 by 285	03Jun14 1419 by 305		
	178906-1	0.05 mg/l	102	75.0-125	S36864	28May14 1454 by 285	03Jun14 1424 by 305		
	Relative Percent Difference:		1.25	20.0	S36864				
Total Recoverable Arsenic	178906-1	0.05 mg/l	99.7	75.0-125	S36864	28May14 1454 by 285	03Jun14 1419 by 305		
	178906-1	0.05 mg/l	94.5	75.0-125	S36864	28May14 1454 by 285	03Jun14 1424 by 305		
	Relative Percent Difference:		5.32	20.0	S36864				
Total Recoverable Beryllium	178906-1	0.05 mg/l	96.0	75.0-125	S36864	28May14 1454 by 285	03Jun14 1419 by 305		
	178906-1	0.05 mg/l	97.0	75.0-125	S36864	28May14 1454 by 285	03Jun14 1424 by 305		
	Relative Percent Difference:		1.06	20.0	S36864				
Total Recoverable Cadmium	178906-1	0.05 mg/l	102	75.0-125	S36864	28May14 1454 by 285	03Jun14 1419 by 305		
	178906-1	0.05 mg/l	103	75.0-125	S36864	28May14 1454 by 285	03Jun14 1424 by 305		
	Relative Percent Difference:		0.206	20.0	S36864				
Total Recoverable Chromium	178906-1	0.05 mg/l	93.0	75.0-125	S36864	28May14 1454 by 285	03Jun14 1419 by 305		
	178906-1	0.05 mg/l	93.5	75.0-125	S36864	28May14 1454 by 285	03Jun14 1424 by 305		
	Relative Percent Difference:		0.495	20.0	S36864				
Total Recoverable Copper	178906-1	0.05 mg/l	98.4	75.0-125	S36864	28May14 1454 by 285	03Jun14 1419 by 305		
	178906-1	0.05 mg/l	99.2	75.0-125	S36864	28May14 1454 by 285	03Jun14 1424 by 305		
	Relative Percent Difference:		0.824	20.0	S36864				
Total Recoverable Lead	178906-1	0.05 mg/l	102	75.0-125	S36864	28May14 1454 by 285	03Jun14 1419 by 305		
	178906-1	0.05 mg/l	103	75.0-125	S36864	28May14 1454 by 285	03Jun14 1424 by 305		
	Relative Percent Difference:		0.218	20.0	S36864				
Total Recoverable Nickel	178906-1	0.05 mg/l	99.1	75.0-125	S36864	28May14 1454 by 285	03Jun14 1419 by 305		
	178906-1	0.05 mg/l	100	75.0-125	S36864	28May14 1454 by 285	03Jun14 1424 by 305		
	Relative Percent Difference:		0.924	20.0	S36864				
Total Recoverable Selenium	178906-1	0.05 mg/l	97.5	75.0-125	S36864	28May14 1454 by 285	03Jun14 1419 by 305		
	178906-1	0.05 mg/l	99.3	75.0-125	S36864	28May14 1454 by 285	03Jun14 1424 by 305		
	Relative Percent Difference:		1.78	20.0	S36864				
Total Recoverable Silver	178906-1	0.02 mg/l	97.5	75.0-125	S36864	28May14 1454 by 285	03Jun14 1419 by 305		
	178906-1	0.02 mg/l	98.0	75.0-125	S36864	28May14 1454 by 285	03Jun14 1424 by 305		
	Relative Percent Difference:		0.601	20.0	S36864				
Total Recoverable Thallium	178906-1	0.05 mg/l	105	75.0-125	S36864	28May14 1454 by 285	03Jun14 1419 by 305		
	178906-1	0.05 mg/l	105	75.0-125	S36864	28May14 1454 by 285	03Jun14 1424 by 305		
	Relative Percent Difference:		0.462	20.0	S36864				
Total Recoverable Zinc	178906-1	0.05 mg/l	101	75.0-125	S36864	28May14 1454 by 285	03Jun14 1419 by 305		
	178906-1	0.05 mg/l	103	75.0-125	S36864	28May14 1454 by 285	03Jun14 1424 by 305		
	Relative Percent Difference:		1.94	20.0	S36864				
Base/Neutral and Acid Compounds									
Acenaphthene	178860-2	40 ug/l	84.8	45.0-110	B8986	22May14 0904 by 295	22May14 1324 by 301		

Central Arkansas Water
 338 Pleasant Valley Drive
 Little Rock, AR 72212

MATRIX SPIKE SAMPLE RESULTS

Analyte	Sample	Spike Amount	%	Limits	Batch	Preparation Date	Analysis Date	Dil	Qual
Base/Neutral and Acid Compounds (Continued)									
Acenaphthylene	178860-2	40 ug/l	85.7	50.0-105	B8986	22May14 0904 by 295	22May14 1324 by 301		
Anthracene	178860-2	40 ug/l	88.1	55.0-110	B8986	22May14 0904 by 295	22May14 1324 by 301		
Benzidine	178860-2	100 ug/l	35.3	0.00-47.0	B8986	22May14 0904 by 295	22May14 1324 by 301		
Benzo(a)anthracene	178860-2	40 ug/l	88.4	55.0-110	B8986	22May14 0904 by 295	22May14 1324 by 301		
Benzo(a)pyrene	178860-2	40 ug/l	90.2	55.0-110	B8986	22May14 0904 by 295	22May14 1324 by 301		
Benzo(g,h,i)perylene	178860-2	40 ug/l	65.8	40.0-125	B8986	22May14 0904 by 295	22May14 1324 by 301		
Benzo(k)fluoranthene	178860-2	40 ug/l	97.0	45.0-125	B8986	22May14 0904 by 295	22May14 1324 by 301		
3,4-Benzofluoranthene	178860-2	40 ug/l	95.0	45.0-120	B8986	22May14 0904 by 295	22May14 1324 by 301		
Bis(2-chloroethoxy)methane	178860-2	40 ug/l	81.6	45.0-105	B8986	22May14 0904 by 295	22May14 1324 by 301		
Bis(2-chloroethyl)ether	178860-2	40 ug/l	84.7	35.0-110	B8986	22May14 0904 by 295	22May14 1324 by 301		
Bis(2-chloroisopropyl)ether	178860-2	40 ug/l	89.4	25.0-130	B8986	22May14 0904 by 295	22May14 1324 by 301		
Bis(2-ethylhexyl)phthalate	178860-2	40 ug/l	120	40.0-125	B8986	22May14 0904 by 295	22May14 1324 by 301		
4-Bromophenyl phenyl ether	178860-2	40 ug/l	81.1	50.0-115	B8986	22May14 0904 by 295	22May14 1324 by 301		
Butylbenzyl phthalate	178860-2	40 ug/l	112	45.0-115	B8986	22May14 0904 by 295	22May14 1324 by 301		
2-Chloronaphthalene	178860-2	40 ug/l	81.6	50.0-105	B8986	22May14 0904 by 295	22May14 1324 by 301		
2-Chlorophenol	178860-2	40 ug/l	81.1	35.0-105	B8986	22May14 0904 by 295	22May14 1324 by 301		
4-Chlorophenyl phenyl ether	178860-2	40 ug/l	82.7	50.0-110	B8986	22May14 0904 by 295	22May14 1324 by 301		
Chrysene	178860-2	40 ug/l	88.3	55.0-110	B8986	22May14 0904 by 295	22May14 1324 by 301		
Di-n-butyl phthalate	178860-2	40 ug/l	105	55.0-115	B8986	22May14 0904 by 295	22May14 1324 by 301		
Di-n-octyl phthalate	178860-2	40 ug/l	120	35.0-135	B8986	22May14 0904 by 295	22May14 1324 by 301		
Dibenz(a,h)anthracene	178860-2	40 ug/l	69.5	40.0-125	B8986	22May14 0904 by 295	22May14 1324 by 301		
1,2-Dichlorobenzene	178860-2	40 ug/l	78.8	35.0-100	B8986	22May14 0904 by 295	22May14 1324 by 301		
1,3-Dichlorobenzene	178860-2	40 ug/l	77.9	30.0-100	B8986	22May14 0904 by 295	22May14 1324 by 301		
1,4-Dichlorobenzene	178860-2	40 ug/l	77.5	30.0-100	B8986	22May14 0904 by 295	22May14 1324 by 301		
3,3'-Dichlorobenzidine	178860-2	40 ug/l	37.7	20.0-110	B8986	22May14 0904 by 295	22May14 1324 by 301		
2,4-Dichlorophenol	178860-2	40 ug/l	78.8	50.0-105	B8986	22May14 0904 by 295	22May14 1324 by 301		
Diethyl phthalate	178860-2	40 ug/l	95.8	40.0-120	B8986	22May14 0904 by 295	22May14 1324 by 301		
Dimethyl phthalate	178860-2	40 ug/l	89.5	25.0-125	B8986	22May14 0904 by 295	22May14 1324 by 301		
2,4-Dimethylphenol	178860-2	40 ug/l	77.8	30.0-110	B8986	22May14 0904 by 295	22May14 1324 by 301		
4,6-Dinitro-o-cresol	178860-2	40 ug/l	85.4	40.0-130	B8986	22May14 0904 by 295	22May14 1324 by 301		
2,4-Dinitrophenol	178860-2	40 ug/l	69.3	15.0-140	B8986	22May14 0904 by 295	22May14 1324 by 301		
2,4-Dinitrotoluene	178860-2	40 ug/l	85.6	50.0-120	B8986	22May14 0904 by 295	22May14 1324 by 301		
2,6-Dinitrotoluene	178860-2	40 ug/l	84.2	50.0-115	B8986	22May14 0904 by 295	22May14 1324 by 301		
1,2-Diphenylhydrazine	178860-2	40 ug/l	88.4	55.0-115	B8986	22May14 0904 by 295	22May14 1324 by 301		
Fluorene	178860-2	40 ug/l	84.8	50.0-110	B8986	22May14 0904 by 295	22May14 1324 by 301		
Hexachlorobenzene	178860-2	40 ug/l	81.1	50.0-110	B8986	22May14 0904 by 295	22May14 1324 by 301		
Hexachlorobutadiene	178860-2	40 ug/l	77.8	25.0-105	B8986	22May14 0904 by 295	22May14 1324 by 301		
Hexachlorocyclopentadiene	178860-2	40 ug/l	78.9	6.60-121	B8986	22May14 0904 by 295	22May14 1324 by 301		
Hexachloroethane	178860-2	40 ug/l	82.0	30.0-100	B8986	22May14 0904 by 295	22May14 1324 by 301		
Indeno(1,2,3-cd)pyrene	178860-2	40 ug/l	71.5	45.0-125	B8986	22May14 0904 by 295	22May14 1324 by 301		

Central Arkansas Water
 338 Pleasant Valley Drive
 Little Rock, AR 72212

MATRIX SPIKE SAMPLE RESULTS

Analyte	Sample	Spike Amount	%	Limits	Batch	Preparation Date	Analysis Date	Dil	Qual
Base/Neutral and Acid Compounds (Continued)									
Isophorone	178860-2	40 ug/l	83.8	50.0-110	B8986	22May14 0904 by 295	22May14 1324 by 301		
n-Nitrosodi-n-propylamine	178860-2	40 ug/l	90.1	35.0-130	B8986	22May14 0904 by 295	22May14 1324 by 301		
n-Nitrosodimethylamine	178860-2	40 ug/l	69.9	25.0-110	B8986	22May14 0904 by 295	22May14 1324 by 301		
n-Nitrosodiphenylamine	178860-2	40 ug/l	82.2	50.0-110	B8986	22May14 0904 by 295	22May14 1324 by 301		
Naphthalene	178860-2	40 ug/l	81.4	40.0-100	B8986	22May14 0904 by 295	22May14 1324 by 301		
Nitrobenzene	178860-2	40 ug/l	82.1	45.0-110	B8986	22May14 0904 by 295	22May14 1324 by 301		
2-Nitrophenol	178860-2	40 ug/l	79.2	40.0-115	B8986	22May14 0904 by 295	22May14 1324 by 301		
4-Nitrophenol	178860-2	40 ug/l	60.3	0.00-125	B8986	22May14 0904 by 295	22May14 1324 by 301		
p-Chloro-m-cresol	178860-2	40 ug/l	84.8	45.0-110	B8986	22May14 0904 by 295	22May14 1324 by 301		
Pentachlorophenol	178860-2	40 ug/l	94.6	40.0-115	B8986	22May14 0904 by 295	22May14 1324 by 301		
Phenanthrene	178860-2	40 ug/l	86.2	50.0-115	B8986	22May14 0904 by 295	22May14 1324 by 301		
Phenol	178860-2	40 ug/l	50.4	0.00-115	B8986	22May14 0904 by 295	22May14 1324 by 301		
Pyrene	178860-2	40 ug/l	71.0	50.0-130	B8986	22May14 0904 by 295	22May14 1324 by 301		
1,2,4-Trichlorobenzene	178860-2	40 ug/l	74.6	35.0-105	B8986	22May14 0904 by 295	22May14 1324 by 301		
2,4,6-Trichlorophenol	178860-2	40 ug/l	83.7	50.0-115	B8986	22May14 0904 by 295	22May14 1324 by 301		
Base/Neutral and Acid Compounds Surrogates:									
2-Fluorobiphenyl	178860-2	40 ug/l	84.0	50.0-110	B8986	22May14 0904 by 295	22May14 1324 by 301		
2-Fluorophenol	178860-2	40 ug/l	64.7	20.0-110	B8986	22May14 0904 by 295	22May14 1324 by 301		
Nitrobenzene-D5	178860-2	40 ug/l	82.5	40.0-110	B8986	22May14 0904 by 295	22May14 1324 by 301		
Terphenyl-D14	178860-2	40 ug/l	75.8	50.0-135	B8986	22May14 0904 by 295	22May14 1324 by 301		
2,4,6-Tribromophenol	178860-2	40 ug/l	87.4	40.0-125	B8986	22May14 0904 by 295	22May14 1324 by 301		
Volatile Organic Compounds									
Acrolein	178842-1	100 ug/l	78.4	35.9-146	V8521	22May14 1006 by 301	22May14 1202 by 301	100	D
Acrylonitrile	178842-1	100 ug/l	98.6	44.6-140	V8521	22May14 1006 by 301	22May14 1202 by 301	100	D
Benzene	178842-1	20 ug/l	118	80.0-120	V8521	22May14 1006 by 301	22May14 1202 by 301	100	D
Bromodichloromethane	178842-1	20 ug/l	111	75.0-120	V8521	22May14 1006 by 301	22May14 1202 by 301	100	D
Bromoform	178842-1	20 ug/l	101	70.0-130	V8521	22May14 1006 by 301	22May14 1202 by 301	100	D
Bromomethane	178842-1	20 ug/l	96.8	30.0-145	V8521	22May14 1006 by 301	22May14 1202 by 301	100	D
Carbon tetrachloride	178842-1	20 ug/l	114	65.0-140	V8521	22May14 1006 by 301	22May14 1202 by 301	100	D
Chlorobenzene	178842-1	20 ug/l	116	80.0-120	V8521	22May14 1006 by 301	22May14 1202 by 301	100	D
Chloroethane	178842-1	20 ug/l	130	60.0-135	V8521	22May14 1006 by 301	22May14 1202 by 301	100	D
2-Chloroethyl vinyl ether	178842-1	40 ug/l	119	37.9-154	V8521	22May14 1006 by 301	22May14 1202 by 301	100	D
Chloroform	178842-1	20 ug/l	107	65.0-135	V8521	22May14 1006 by 301	22May14 1202 by 301	100	D
Chloromethane	178842-1	20 ug/l	101	40.0-125	V8521	22May14 1006 by 301	22May14 1202 by 301	100	D
Dibromochloromethane	178842-1	20 ug/l	107	60.0-135	V8521	22May14 1006 by 301	22May14 1202 by 301	100	D
1,2-Dichlorobenzene	178842-1	20 ug/l	110	70.0-120	V8521	22May14 1006 by 301	22May14 1202 by 301	100	D
1,3-Dichlorobenzene	178842-1	20 ug/l	110	75.0-125	V8521	22May14 1006 by 301	22May14 1202 by 301	100	D
1,4-Dichlorobenzene	178842-1	20 ug/l	111	75.0-125	V8521	22May14 1006 by 301	22May14 1202 by 301	100	D
1,1-Dichloroethane	178842-1	20 ug/l	116	70.0-135	V8521	22May14 1006 by 301	22May14 1202 by 301	100	D

Central Arkansas Water
338 Pleasant Valley Drive
Little Rock, AR 72212

MATRIX SPIKE SAMPLE RESULTS

Analyte	Sample	Spike Amount	%	Limits	Batch	Preparation Date	Analysis Date	Dil	Qual
Volatile Organic Compounds (Continued)									
1,2-Dichloroethane	178842-1	20 ug/l	119	70.0-130	V8521	22May14 1006 by 301	22May14 1202 by 301	100	D
1,1-Dichloroethene	178842-1	20 ug/l	117	70.0-130	V8521	22May14 1006 by 301	22May14 1202 by 301	100	D
trans-1,2-Dichloroethene	178842-1	20 ug/l	115	60.0-140	V8521	22May14 1006 by 301	22May14 1202 by 301	100	D
1,2-Dichloropropane	178842-1	20 ug/l	119	75.0-125	V8521	22May14 1006 by 301	22May14 1202 by 301	100	D
1,3-Dichloropropylene	178842-1	20 ug/l	111	70.0-130	V8521	22May14 1006 by 301	22May14 1202 by 301	100	D
Ethylbenzene	178842-1	20 ug/l	110	75.0-125	V8521	22May14 1006 by 301	22May14 1202 by 301	100	D
Methylene chloride	178842-1	20 ug/l	93.9	55.0-140	V8521	22May14 1006 by 301	22May14 1202 by 301	100	D
1,1,2,2-Tetrachloroethane	178842-1	20 ug/l	114	65.0-130	V8521	22May14 1006 by 301	22May14 1202 by 301	100	D
Tetrachloroethene	178842-1	20 ug/l	114	45.0-150	V8521	22May14 1006 by 301	22May14 1202 by 301	100	D
Toluene	178842-1	20 ug/l	115	75.0-120	V8521	22May14 1006 by 301	22May14 1202 by 301	100	D
1,1,1-Trichloroethane	178842-1	20 ug/l	107	65.0-130	V8521	22May14 1006 by 301	22May14 1202 by 301	100	D
1,1,2-Trichloroethane	178842-1	20 ug/l	116	75.0-125	V8521	22May14 1006 by 301	22May14 1202 by 301	100	D
Trichloroethene	178842-1	20 ug/l	116	70.0-125	V8521	22May14 1006 by 301	22May14 1202 by 301	100	D
Vinyl chloride	178842-1	20 ug/l	126	50.0-145	V8521	22May14 1006 by 301	22May14 1202 by 301	100	D
Volatile Organic Compounds Surrogates:									
4-Bromofluorobenzene	178842-1	50 ug/l	98.4	75.0-120	V8521	22May14 1006 by 301	22May14 1202 by 301	100	D
Dibromofluoromethane	178842-1	50 ug/l	94.5	85.0-115	V8521	22May14 1006 by 301	22May14 1202 by 301	100	D
Toluene-D8	178842-1	50 ug/l	97.3	85.0-120	V8521	22May14 1006 by 301	22May14 1202 by 301	100	D
Organochlorine Pesticides and PCBs									
Aldrin	178842-1	10 ug/l	80.0	25.0-140	G9720	22May14 1413 by 295	22May14 1827 by 306	10	D
	178842-1	10 ug/l	102	25.0-140	G9720	22May14 1413 by 295	22May14 1839 by 306	10	D
	Relative Percent Difference:		24.4	30.0	G9720				
alpha-BHC	178842-1	10 ug/l	82.1	60.0-130	G9720	22May14 1413 by 295	22May14 1827 by 306	10	D
	178842-1	10 ug/l	107	60.0-130	G9720	22May14 1413 by 295	22May14 1839 by 306	10	D
	Relative Percent Difference:		26.4	30.0	G9720				
alpha-Endosulfan	178842-1	10 ug/l	85.1	50.0-110	G9720	22May14 1413 by 295	22May14 1827 by 306	10	D
	178842-1	10 ug/l	110	50.0-110	G9720	22May14 1413 by 295	22May14 1839 by 306	10	D
	Relative Percent Difference:		25.3	30.0	G9720				
beta-BHC	178842-1	10 ug/l	88.6	65.0-125	G9720	22May14 1413 by 295	22May14 1827 by 306	10	D
	178842-1	10 ug/l	114	65.0-125	G9720	22May14 1413 by 295	22May14 1839 by 306	10	D
	Relative Percent Difference:		25.2	30.0	G9720				
beta-Endosulfan	178842-1	10 ug/l	89.9	30.0-130	G9720	22May14 1413 by 295	22May14 1827 by 306	10	D
	178842-1	10 ug/l	116	30.0-130	G9720	22May14 1413 by 295	22May14 1839 by 306	10	D
	Relative Percent Difference:		25.2	30.0	G9720				
Chlorpyrifos	178842-1	10 ug/l	87.8	47.9-138	G9720	22May14 1413 by 295	22May14 1827 by 306	10	D
	178842-1	10 ug/l	111	47.9-138	G9720	22May14 1413 by 295	22May14 1839 by 306	10	D
	Relative Percent Difference:		23.6	25.6	G9720				
4,4'-DDD	178842-1	10 ug/l	85.2	25.0-150	G9720	22May14 1413 by 295	22May14 1827 by 306	10	D
	178842-1	10 ug/l	110	25.0-150	G9720	22May14 1413 by 295	22May14 1839 by 306	10	D
	Relative Percent Difference:		25.8	30.0	G9720				
4,4'-DDE	178842-1	10 ug/l	85.0	35.0-140	G9720	22May14 1413 by 295	22May14 1827 by 306	10	D
	178842-1	10 ug/l	108	35.0-140	G9720	22May14 1413 by 295	22May14 1839 by 306	10	D
	Relative Percent Difference:		23.7	30.0	G9720				

Central Arkansas Water
 338 Pleasant Valley Drive
 Little Rock, AR 72212

MATRIX SPIKE SAMPLE RESULTS

Analyte	Sample	Spike Amount	%	Limits	Batch	Preparation Date	Analysis Date	Dil	Qual
4,4'-DDT	178842-1	10 ug/l	97.9	45.0-140	G9720	22May14 1413 by 295	22May14 1827 by 306	10	D
	178842-1	10 ug/l	127	45.0-140	G9720	22May14 1413 by 295	22May14 1839 by 306	10	D
	Relative Percent Difference:		25.7	30.0	G9720				
delta-BHC	178842-1	10 ug/l	88.0	45.0-135	G9720	22May14 1413 by 295	22May14 1827 by 306	10	D
	178842-1	10 ug/l	113	45.0-135	G9720	22May14 1413 by 295	22May14 1839 by 306	10	D
	Relative Percent Difference:		24.6	30.0	G9720				
Dieldrin	178842-1	10 ug/l	87.0	60.0-130	G9720	22May14 1413 by 295	22May14 1827 by 306	10	D
	178842-1	10 ug/l	112	60.0-130	G9720	22May14 1413 by 295	22May14 1839 by 306	10	D
	Relative Percent Difference:		25.1	30.0	G9720				
Endosulfan sulfate	178842-1	10 ug/l	94.9	55.0-135	G9720	22May14 1413 by 295	22May14 1827 by 306	10	D
	178842-1	10 ug/l	122	55.0-135	G9720	22May14 1413 by 295	22May14 1839 by 306	10	D
	Relative Percent Difference:		24.8	30.0	G9720				
Endrin	178842-1	10 ug/l	88.9	55.0-135	G9720	22May14 1413 by 295	22May14 1827 by 306	10	D
	178842-1	10 ug/l	115	55.0-135	G9720	22May14 1413 by 295	22May14 1839 by 306	10	D
	Relative Percent Difference:		25.3	30.0	G9720				
Endrin aldehyde	178842-1	10 ug/l	95.3	55.0-135	G9720	22May14 1413 by 295	22May14 1827 by 306	10	D
	178842-1	10 ug/l	123	55.0-135	G9720	22May14 1413 by 295	22May14 1839 by 306	10	D
	Relative Percent Difference:		25.7	30.0	G9720				
gamma-BHC	178842-1	10 ug/l	82.0	25.0-135	G9720	22May14 1413 by 295	22May14 1827 by 306	10	D
	178842-1	10 ug/l	106	25.0-135	G9720	22May14 1413 by 295	22May14 1839 by 306	10	D
	Relative Percent Difference:		25.6	30.0	G9720				
Heptachlor	178842-1	10 ug/l	76.1	40.0-130	G9720	22May14 1413 by 295	22May14 1827 by 306	10	D
	178842-1	10 ug/l	97.5	40.0-130	G9720	22May14 1413 by 295	22May14 1839 by 306	10	D
	Relative Percent Difference:		24.7	30.0	G9720				
Heptachlor epoxide	178842-1	10 ug/l	85.0	60.0-130	G9720	22May14 1413 by 295	22May14 1827 by 306	10	D
	178842-1	10 ug/l	110	60.0-130	G9720	22May14 1413 by 295	22May14 1839 by 306	10	D
	Relative Percent Difference:		25.4	30.0	G9720				
Organochlorine Pesticides and PCBs Surrogates:									
Decachlorobiphenyl	178842-1	20 ug/l	99.8	30.0-135	G9720	22May14 1413 by 295	22May14 1827 by 306		
	178842-1	20 ug/l	130	30.0-135	G9720	22May14 1413 by 295	22May14 1839 by 306		
Tetrachloro-m-xylene	178842-1	20 ug/l	81.3	25.0-140	G9720	22May14 1413 by 295	22May14 1827 by 306		
	178842-1	20 ug/l	107	25.0-140	G9720	22May14 1413 by 295	22May14 1839 by 306		

Central Arkansas Water
 338 Pleasant Valley Drive
 Little Rock, AR 72212

LABORATORY BLANK RESULTS

Analyte	Result	RL	PQL	QC		Analysis Date	Qual
				Sample	Preparation Date		
Total Recoverable Phenolics	< 0.005 mg/l	0.005	0.005	W47826-1	23May14 0748 by 308	23May14 1050 by 308	
Chromium, Hexavalent	< 0.007 mg/l	0.007	0.007	W47818-1	22May14 1200 by 93	22May14 1300 by 93	
Total Cyanide	< 0.01 mg/l	0.01	0.01	W47825-1	23May14 0747 by 308	23May14 1159 by 308	
Mercury, low level	< 0.0018 ug/l	0.0018	0.0050	S36846-1	23May14 1204 by 311	23May14 1224 by 311	
Total Recoverable Antimony	< 0.03 mg/l	0.03	0.03	S36864-1	28May14 1454 by 285	03Jun14 1409 by 305	
Total Recoverable Arsenic	< 0.0005 mg/l	0.0005	0.0005	S36864-1	28May14 1454 by 285	03Jun14 1409 by 305	
Total Recoverable Beryllium	< 0.0003 mg/l	0.0003	0.0003	S36864-1	28May14 1454 by 285	03Jun14 1409 by 305	
Total Recoverable Cadmium	< 0.0005 mg/l	0.0005	0.0005	S36864-1	28May14 1454 by 285	03Jun14 1409 by 305	
Total Recoverable Chromium	< 0.007 mg/l	0.007	0.007	S36864-1	28May14 1454 by 285	03Jun14 1409 by 305	
Total Recoverable Copper	< 0.0005 mg/l	0.0005	0.0005	S36864-1	28May14 1454 by 285	03Jun14 1409 by 305	
Total Recoverable Lead	< 0.0005 mg/l	0.0005	0.0005	S36864-1	28May14 1454 by 285	03Jun14 1409 by 305	
Total Recoverable Nickel	< 0.0005 mg/l	0.0005	0.0005	S36864-1	28May14 1454 by 285	03Jun14 1409 by 305	
Total Recoverable Selenium	< 0.002 mg/l	0.002	0.002	S36864-1	28May14 1454 by 285	03Jun14 1409 by 305	
Total Recoverable Silver	< 0.0002 mg/l	0.0002	0.0002	S36864-1	28May14 1454 by 285	03Jun14 1409 by 305	
Total Recoverable Thallium	< 0.0005 mg/l	0.0005	0.0005	S36864-1	28May14 1454 by 285	03Jun14 1409 by 305	
Total Recoverable Zinc	< 0.002 mg/l	0.002	0.002	S36864-1	28May14 1454 by 285	03Jun14 1409 by 305	
Base/Neutral and Acid Compounds							
Acenaphthene	< 0.83 ug/l	0.83	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
Acenaphthylene	< 0.79 ug/l	0.79	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
Anthracene	< 1.5 ug/l	1.5	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
Benzidine	< 14 ug/l	14	25	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
Benzo(a)anthracene	< 0.75 ug/l	0.75	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
Benzo(a)pyrene	< 0.63 ug/l	0.63	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
Benzo(g,h,i)perylene	< 0.79 ug/l	0.79	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
Benzo(k)fluoranthene	< 1.6 ug/l	1.6	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
3,4-Benzofluoranthene	< 1.4 ug/l	1.4	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
Bis(2-chloroethoxy)methane	< 0.80 ug/l	0.80	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
Bis(2-chloroethyl)ether	< 0.88 ug/l	0.88	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
Bis(2-chloroisopropyl)ether	< 0.94 ug/l	0.94	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
Bis(2-ethylhexyl)phthalate	< 3.8 ug/l	3.8	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
4-Bromophenyl phenyl ether	< 1.2 ug/l	1.2	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
Butylbenzyl phthalate	< 1.5 ug/l	1.5	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
2-Chloronaphthalene	< 0.84 ug/l	0.84	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
2-Chlorophenol	< 2.1 ug/l	2.1	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
4-Chlorophenyl phenyl ether	< 0.96 ug/l	0.96	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
Chrysene	< 0.83 ug/l	0.83	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
Di-n-butyl phthalate	< 1.1 ug/l	1.1	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
Di-n-octyl phthalate	< 0.70 ug/l	0.70	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
Dibenz(a,h)anthracene	< 1.2 ug/l	1.2	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
3,3'-Dichlorobenzidine	< 4.9 ug/l	4.9	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
2,4-Dichlorophenol	< 0.51 ug/l	0.51	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
Diethyl phthalate	< 0.85 ug/l	0.85	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
Dimethyl phthalate	< 0.93 ug/l	0.93	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
2,4-Dimethylphenol	< 0.79 ug/l	0.79	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
4,6-Dinitro-o-cresol	< 0.75 ug/l	0.75	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
2,4-Dinitrophenol	< 0.74 ug/l	0.74	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
2,4-Dinitrotoluene	< 0.51 ug/l	0.51	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
2,6-Dinitrotoluene	< 0.83 ug/l	0.83	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
1,2-Diphenylhydrazine	< 0.60 ug/l	0.60	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
Fluorene	< 0.99 ug/l	0.99	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	

Central Arkansas Water
 338 Pleasant Valley Drive
 Little Rock, AR 72212

LABORATORY BLANK RESULTS

Analyte	Result	RL	PQL	QC Sample	Preparation Date	Analysis Date	Qual
Base/Neutral and Acid Compounds							
Hexachlorobenzene	< 1.1 ug/l	1.1	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
Hexachlorobutadiene	< 0.71 ug/l	0.71	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
Hexachlorocyclopentadiene	< 0.74 ug/l	0.74	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
Hexachloroethane	< 0.73 ug/l	0.73	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
Indeno(1,2,3-cd)pyrene	< 1.2 ug/l	1.2	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
Isophorone	< 0.90 ug/l	0.90	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
n-Nitrosodi-n-propylamine	< 0.90 ug/l	0.90	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
n-Nitrosodimethylamine	< 2.5 ug/l	2.5	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
n-Nitrosodiphenylamine	< 1.1 ug/l	1.1	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	R
Naphthalene	< 0.87 ug/l	0.87	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
Nitrobenzene	< 0.85 ug/l	0.85	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
2-Nitrophenol	< 0.82 ug/l	0.82	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
4-Nitrophenol	< 0.70 ug/l	0.70	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
p-Chloro-m-cresol	< 1.7 ug/l	1.7	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
Pentachlorophenol	< 0.94 ug/l	0.94	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
Phenanthrene	< 0.93 ug/l	0.93	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
Phenol	< 2.6 ug/l	2.6	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
Pyrene	< 0.56 ug/l	0.56	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
1,2,4-Trichlorobenzene	< 0.87 ug/l	0.87	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
2,4,6-Trichlorophenol	< 1.4 ug/l	1.4	5.0	B8986-1	22May14 0904 by 295	22May14 1212 by 301	
Base/Neutral and Acid Compounds Surrogates:							
2-Fluorobiphenyl (50.0-110%)	79.6 %			B8986-1	22May14 0904 by 295	22May14 1212 by 301	
2-Fluorophenol (20.0-110%)	61.1 %			B8986-1	22May14 0904 by 295	22May14 1212 by 301	
Nitrobenzene-D5 (40.0-110%)	74.7 %			B8986-1	22May14 0904 by 295	22May14 1212 by 301	
Terphenyl-D14 (50.0-135%)	79.4 %			B8986-1	22May14 0904 by 295	22May14 1212 by 301	
2,4,6-Tribromophenol (40.0-125%)	55.3 %			B8986-1	22May14 0904 by 295	22May14 1212 by 301	
Volatile Organic Compounds							
Acrolein	< 0.78 ug/l	0.78	25	V8521-1	22May14 1006 by 301	22May14 1319 by 301	
Acrylonitrile	< 0.63 ug/l	0.63	25	V8521-1	22May14 1006 by 301	22May14 1319 by 301	
Benzene	< 0.12 ug/l	0.12	5.0	V8521-1	22May14 1006 by 301	22May14 1319 by 301	
Bromoform	< 0.26 ug/l	0.26	5.0	V8521-1	22May14 1006 by 301	22May14 1319 by 301	
Carbon tetrachloride	< 0.21 ug/l	0.21	2.0	V8521-1	22May14 1006 by 301	22May14 1319 by 301	
Chlorobenzene	< 0.11 ug/l	0.11	5.0	V8521-1	22May14 1006 by 301	22May14 1319 by 301	
Chlorodibromomethane	< 0.11 ug/l	0.11	5.0	V8521-1	22May14 1006 by 301	22May14 1319 by 301	
Chloroethane	< 0.35 ug/l	0.35	5.0	V8521-1	22May14 1006 by 301	22May14 1319 by 301	
2-Chloroethyl vinyl ether	< 0.24 ug/l	0.24	10	V8521-1	22May14 1006 by 301	22May14 1319 by 301	
Chloroform	< 0.16 ug/l	0.16	5.0	V8521-1	22May14 1006 by 301	22May14 1319 by 301	
1,2-Dichlorobenzene	< 0.17 ug/l	0.17	5.0	V8521-1	22May14 1006 by 301	22May14 1319 by 301	
1,3-Dichlorobenzene	< 0.14 ug/l	0.14	5.0	V8521-1	22May14 1006 by 301	22May14 1319 by 301	
1,4-Dichlorobenzene	< 0.19 ug/l	0.19	5.0	V8521-1	22May14 1006 by 301	22May14 1319 by 301	
Dichlorobromomethane	< 0.17 ug/l	0.17	5.0	V8521-1	22May14 1006 by 301	22May14 1319 by 301	
1,1-Dichloroethane	< 0.15 ug/l	0.15	5.0	V8521-1	22May14 1006 by 301	22May14 1319 by 301	
1,2-Dichloroethane	< 0.21 ug/l	0.21	5.0	V8521-1	22May14 1006 by 301	22May14 1319 by 301	
1,1-Dichloroethylene	< 0.24 ug/l	0.24	5.0	V8521-1	22May14 1006 by 301	22May14 1319 by 301	
trans-1,2-Dichloroethylene	< 0.20 ug/l	0.20	5.0	V8521-1	22May14 1006 by 301	22May14 1319 by 301	
1,2-Dichloropropane	< 0.19 ug/l	0.19	5.0	V8521-1	22May14 1006 by 301	22May14 1319 by 301	
1,3-Dichloropropylene	< 0.20 ug/l	0.20	5.0	V8521-1	22May14 1006 by 301	22May14 1319 by 301	
Ethylbenzene	< 0.12 ug/l	0.12	5.0	V8521-1	22May14 1006 by 301	22May14 1319 by 301	
Methyl bromide(Bromomethane)	< 0.16 ug/l	0.16	5.0	V8521-1	22May14 1006 by 301	22May14 1319 by 301	

Central Arkansas Water
 338 Pleasant Valley Drive
 Little Rock, AR 72212

LABORATORY BLANK RESULTS

Analyte	Result	RL	PQL	QC Sample	Preparation Date	Analysis Date	Qual
Volatile Organic Compounds							
Methyl chloride(Chloromethane)	< 0.19 ug/l	0.19	5.0	V8521-1	22May14 1006 by 301	22May14 1319 by 301	
Methylene chloride	< 0.25 ug/l	0.25	5.0	V8521-1	22May14 1006 by 301	22May14 1319 by 301	
1,1,2,2-Tetrachloroethane	< 0.20 ug/l	0.20	5.0	V8521-1	22May14 1006 by 301	22May14 1319 by 301	
Tetrachloroethylene	< 0.18 ug/l	0.18	5.0	V8521-1	22May14 1006 by 301	22May14 1319 by 301	
Toluene	< 0.16 ug/l	0.16	5.0	V8521-1	22May14 1006 by 301	22May14 1319 by 301	
1,1,1-Trichloroethane	< 0.13 ug/l	0.13	5.0	V8521-1	22May14 1006 by 301	22May14 1319 by 301	
1,1,2-Trichloroethane	< 0.19 ug/l	0.19	5.0	V8521-1	22May14 1006 by 301	22May14 1319 by 301	
Trichloroethylene	< 0.22 ug/l	0.22	5.0	V8521-1	22May14 1006 by 301	22May14 1319 by 301	
Vinyl chloride	< 0.47 ug/l	0.47	2.0	V8521-1	22May14 1006 by 301	22May14 1319 by 301	
Volatile Organic Compounds Surrogates:							
4-Bromofluorobenzene (75.0-120%)	94.5 %			V8521-1	22May14 1006 by 301	22May14 1319 by 301	
Dibromofluoromethane (85.0-115%)	108 %			V8521-1	22May14 1006 by 301	22May14 1319 by 301	
Toluene-D8 (85.0-120%)	98.9 %			V8521-1	22May14 1006 by 301	22May14 1319 by 301	
Organochlorine Pesticides and PCBs							
Aldrin	< 0.0050 ug/l	0.0050	0.010	G9720-1	22May14 1413 by 295	22May14 1804 by 306	
alpha-BHC	< 0.0050 ug/l	0.0050	0.020	G9720-1	22May14 1413 by 295	22May14 1804 by 306	
alpha-Endosulfan	< 0.0050 ug/l	0.0050	0.010	G9720-1	22May14 1413 by 295	22May14 1804 by 306	
beta-BHC	< 0.0050 ug/l	0.0050	0.020	G9720-1	22May14 1413 by 295	22May14 1804 by 306	
beta-Endosulfan	< 0.0050 ug/l	0.0050	0.020	G9720-1	22May14 1413 by 295	22May14 1804 by 306	
Chlordane	< 0.10 ug/l	0.10	0.10	G9720-1	22May14 1413 by 295	22May14 1804 by 306	
Chlorpyrifos	< 0.0050 ug/l	0.0050	0.050	G9720-1	22May14 1413 by 295	22May14 1804 by 306	
4,4'-DDD	< 0.0050 ug/l	0.0050	0.020	G9720-1	22May14 1413 by 295	22May14 1804 by 306	
4,4'-DDE	< 0.0050 ug/l	0.0050	0.020	G9720-1	22May14 1413 by 295	22May14 1804 by 306	
4,4'-DDT	< 0.0050 ug/l	0.0050	0.020	G9720-1	22May14 1413 by 295	22May14 1804 by 306	
delta-BHC	< 0.0050 ug/l	0.0050	0.020	G9720-1	22May14 1413 by 295	22May14 1804 by 306	
Dieldrin	< 0.0050 ug/l	0.0050	0.020	G9720-1	22May14 1413 by 295	22May14 1804 by 306	
Endosulfan sulfate	< 0.0050 ug/l	0.0050	0.020	G9720-1	22May14 1413 by 295	22May14 1804 by 306	
Endrin	< 0.0050 ug/l	0.0050	0.020	G9720-1	22May14 1413 by 295	22May14 1804 by 306	
Endrin aldehyde	< 0.0050 ug/l	0.0050	0.020	G9720-1	22May14 1413 by 295	22May14 1804 by 306	
gamma-BHC	< 0.0050 ug/l	0.0050	0.020	G9720-1	22May14 1413 by 295	22May14 1804 by 306	
Heptachlor	< 0.0050 ug/l	0.0050	0.010	G9720-1	22May14 1413 by 295	22May14 1804 by 306	
Heptachlor epoxide	< 0.0050 ug/l	0.0050	0.010	G9720-1	22May14 1413 by 295	22May14 1804 by 306	
PCB 1016	< 0.20 ug/l	0.20	0.20	G9720-1	22May14 1413 by 295	22May14 1804 by 306	
PCB 1221	< 0.20 ug/l	0.20	0.20	G9720-1	22May14 1413 by 295	22May14 1804 by 306	
PCB 1232	< 0.20 ug/l	0.20	0.20	G9720-1	22May14 1413 by 295	22May14 1804 by 306	
PCB 1242	< 0.20 ug/l	0.20	0.20	G9720-1	22May14 1413 by 295	22May14 1804 by 306	
PCB 1248	< 0.20 ug/l	0.20	0.20	G9720-1	22May14 1413 by 295	22May14 1804 by 306	
PCB 1254	< 0.20 ug/l	0.20	0.20	G9720-1	22May14 1413 by 295	22May14 1804 by 306	
PCB 1260	< 0.20 ug/l	0.20	0.20	G9720-1	22May14 1413 by 295	22May14 1804 by 306	
Toxaphene	< 0.20 ug/l	0.20	0.20	G9720-1	22May14 1413 by 295	22May14 1804 by 306	
Organochlorine Pesticides and PCBs Surrogates:							
Decachlorobiphenyl (30.0-135%)	109 %			G9720-1	22May14 1413 by 295	22May14 1804 by 306	
Tetrachloro-m-xylene (25.0-140%)	88.2 %			G9720-1	22May14 1413 by 295	22May14 1804 by 306	



CHAIN OF CUSTODY / ANALYSIS REQUEST FORM

Client: CAW			PO No.		NO OF BOTTLES	ANALYSES REQUESTED										AIC CONTROL NO: 178906	
Project Reference:			SAMPLE MATRIX			BNA 625	Pest 608	VOA 624	HG (LL)	Phenolics	PPS Metals	T. Cyanide	Cr 6	AIC PROPOSAL NO:			
Project Manager: Sharon Sweeney			W	S											Carrier/Tracking No.		
Sampled By: Sharon Sweeney			GRAB	COMP	WATER	SOIL								Received Temperature C 5.7°C			
AIC No.	Sample Identification	Date/Time Collected													Remarks		
1	02877	5.22.2014 0925			X			2	2	3	1	1	1	1			
2	02878	5.22.2014 0950			X			2	2	3	1	1	1	1			
Container Type						G	G	G	G	G	P	P	P	Field pH calibration on _____ @ _____			
Preservative								H	S	N	B		Buffer:				
G = Glass			P = Plastic			V = VOA vials			H = HCl to pH2			T = Sodium Thiosulfate					
NO = none			S = Sulfuric acid pH2			N = Nitric acid pH2			B = NaOH to pH12			Z = Zinc acetate					
Turnaround Time Requested: (Please circle) <u>NORMAL</u> or EXPEDITED IN _____ DAYS						Relinquished By: <i>[Signature]</i>		Date/Time: 5.22.14		Received By: <i>[Signature]</i>		Date/Time:					
Expedited results requested by: _____						Relinquished By: <i>[Signature]</i>		Date/Time: 5.22.2014 1030		Received in Lab By: <i>[Signature]</i>		Date/Time: 5/22/14 1030					
Who should AIC contact with questions: <u>Sharon Sweeney</u>						Comments:											
Phone: <u>501 210-4914</u> Fax: _____																	
Report Attention to: <u>Randy Eastey</u>																	
Report Address to: <u>338 Pleasant Valley Dr</u>																	
<u>LR AR 72212</u>																	