February 24, 2009

Mr. Ryan Benefield, P.E.
Chief Hazardous Waste Division
Arkansas Department of Environmental Quality (ADEQ)
8001 National Drive
Little Rock, Arkansas 72219-8913

Subject: Cedar Chemical Corporation, Helena-West Helena, Arkansas
Arkansas Solid Waste Registration No. ARD990660649
Submittal of the Facility Investigation (FI) Report

Dear Mr. Benefield:

On behalf of Exxon Mobil Chemical Co., and Helena Chemical Company, AMEC Geomatrix respectfully submits this Facility Investigation (FI) Report documenting the FI activities performed at the referenced facility.

Should you have any questions, please contact me at 512.494.0333.

Sincerely yours,
AMEC Geomatrix, Inc.

Kelly Beck
Project Manager

cc: Dave Roberson, Exxon Mobil Chemical Company
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FACILITY INVESTIGATION REPORT
CEDAR CHEMICAL CORPORATION
HELENA-WEST HELENA, ARKANSAS

Submitted to:

Exxon Mobil Corporation and Helena Chemical Company

Submitted by:

AMEC Geomatrix, Inc., Austin, Texas

February 2009

Project No. 13636

AMEC Geomatrix

FACILITY INVESTIGATION REPORT

Former Cedar Chemical Corporation
Helena-West Helena, Arkansas

February 24, 2009
Project 13636

This report was prepared by the staff of AMEC Geomatrix, Inc., under the supervision of the Engineer(s) and/or Geologist(s) whose seal(s) and signature(s) appear hereon.

The findings, recommendations, specifications, or professional opinions are presented within the limits described by the client, in accordance with generally accepted professional engineering and geologic practice. No warranty is expressed or implied.

Mark Hemingway
Project Principal

Kelly Beck
Project Manager

MPH

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FACILITY INVESTIGATION REPORT
CEDAR CHEMICAL CORPORATION
Helena - West Helena, Arkansas

1.0 INTRODUCTION

On March 22, 2007, the Arkansas Department of Environmental Quality (ADEQ) issued a Consent Administrative Order (CAO) to Ansul Inc., formerly known as Wormald US, Inc., Helena Chemical Company, and Exxon Mobil Chemical Co., a division of ExxonMobil Corporation, pursuant to the authority of the Arkansas Remedial Action Trust Fund Act ("RATFA"). The subject of the CAO is the former Cedar Chemical Corporation facility ("the Facility") located in Helena-West Helena, Phillips County, Arkansas. The basic objective of the CAO is to "address environmental concerns at the Facility to ensure protection of human health and the environment." The CAO requires the companies to perform various tasks with respect to the Facility; these include establishing the procedure for planning and implementing a site investigation, and conducting a feasibility study to identify and evaluate remedial alternatives. Pursuant to Paragraph V. 20 of the CAO, Helena Chemical Company and Exxon Mobil Chemical Co. acting jointly (hereafter the Group) entered into a Separate Agreement with ADEQ on March 25, 2008. Although Ansul Inc. signed the CAO, it is not a party to the Separate Agreement and it has not paid for or participated in any work described in this report.

The Separate Agreement between the Group and ADEQ provided that the site investigation and feasibility study process described in the CAO would be met through the performance of the following:

- Submittal of a Current Conditions Report (CCR) to ADEQ. This CCR was submitted on November 16th, 2007.

- Submittal of a Facility Investigation (FI) Workplan to ADEQ. This workplan was submitted on January 18, 2008, re-submitted with revisions based on ADEQ comments on March 20, 2008, and conditionally approved by ADEQ on March 25, 2008. A supplement to the FI Workplan, describing additional well installations, was submitted to ADEQ on August 28, 2008, and approved by ADEQ on September 5th, 2008.

- Performance of the FI activities described in the FI Workplan. The planned field work was completed in August 2008.

- Preliminary FI Report. This report was submitted to ADEQ on October 13, 2008.

- Submittal of a FI Report. This document was prepared and is being submitted on behalf of the Group to satisfy this requirement.

- Submittal of a Feasibility Study based on FI findings. This will be submitted within 60 days of ADEQ's approval of this FI Report.

Based on these requirements of the CAO and the March 25, 2008 Separate Agreement, and as discussed in the approved FI Workplan, the FI was performed to assess:

- Perched Zone hydrogeology, including extent and thickness, seasonal variability, groundwater flow velocity, and hydraulic conductivity,

- Alluvial Aquifer hydrogeology, including groundwater flow velocity, hydraulic conductivity, presence of highly transmissive natural features, and basic geochemical character,

- Chemical impact in the Perched Zone and Alluvial Aquifer groundwater, including assessment of the sources, character, and extent of chemical impact in the two groundwater zones,

- Waste disposal areas that may be behaving as a source of groundwater contamination, including further delineation of the extent of waste, and characterization of current chemical concentrations in soil and groundwater adjacent to waste disposal zones,

- Exposure pathways, including the potential for the current or likely future groundwater use of impacted groundwater,

- Other data necessary for selection of an appropriate remedy.

This FI Report was prepared to describe and discuss the objectives, methods, and findings of the field investigation.

2.0 BACKGROUND INFORMATION

Detailed information regarding the setting and environmental conditions of the Facility and its surroundings is summarized in the CCR submitted to the ADEQ in November, 2007. The CCR also describes the regulatory, ownership, and operational history of the Facility. The FI Workplan and Supplemental Workplans submitted to ADEQ address project objectives, anticipated work phases and changes to the field work, sampling locations, general field operating procedures, schedules for conducting the field work and submittals. These Workplans were supported by a Quality Assurance Project Plan (QAPP), which established the quality assurance requirements for all phases of work. The QAPP was provided in Appendix A of the FI Workplan.

Although more detailed information regarding the Facility and its setting is available in these documents, a summary of pertinent background information is provided below.

2.1 Setting

The Facility is located to the south of the city of Helena-West Helena, in Phillips County, Arkansas. The Facility consists of 48 acres within the Helena-West Helena Industrial Park, approximately 1.25 miles southwest of the intersection of U.S. Highway 49 and State Highway 242. A site location map is included as Figure 1. The Facility is bordered by farmland, State Highway 242, a rail spur, and industrial park properties. The former operational portion of the property is divided into two major areas: (1) the abandoned manufacturing area and (2) the wastewater treatment system area which is located on the south side of Industrial Park Road. Of the 48 acres, approximately 40 acres comprise the abandoned manufacturing fenced area of the Facility. The current wastewater treatment ponds are located on an additional 8 acres of the property. An undeveloped, wooded area west of the wastewater treatment ponds and south of Industrial Park Road is part of the site property, but does not appear to have historically been part of the manufacturing facility.

The site is underlain by several units of unconsolidated Quaternary and Tertiary age sedimentary deposits. There are two shallow groundwater regimes at the site: a Perched Zone present within low-permeability silt and clay surficial sediments (ground surface to approximately 25 to 35 feet below ground surface [bgs] and an Alluvial Aquifer extending from approximately 45 to 150 feet bgs. The Alluvial Aquifer is underlain by the Jackson-Claiborne Group (which includes the Jackson Clay), which is approximately 250 feet thick in the site area (Environmental and Safety Designs, 1995). The Jackson-Claiborne Group is a thick, low permeability stratum comprised of clay and lignite that acts as a regional lower confining unit beneath the Alluvial Aquifer.

Stormwater accumulating at the Facility is pumped to the wastewater treatment ponds. This stormwater transfer originally took place via underground piping, but this was replaced with above ground piping during the 1990s. Wastewater from the treatment plant is discharged through a 4.5-mile pipeline to the Mississippi river under NPDES permit AR0036312.

2.2 Suspected Source Areas

Based on previous information presented in earlier reports regarding the site and summarized in the CCR and the FI Workplan, potential source areas included, but were not limited to:

- Process units and related chemical storage areas. There are six former process units at the Facility.

- Wastewater treatment facilities. These include the former surface water ponds, used from approximately the 1972 to 1977 and located west of the central Process Area, and the current wastewater treatment ponds, used from 1977 through the present and located south of the central Process Area and south of Industrial Park Road.

- Historical on-site waste disposal areas. These include the former Dinoseb Disposal Ponds, the Drum Vault, and a two suspected waste disposal areas identified by ADEQ and located in the area of former Process Unit 4, and in the northern part of the Process Area where DP-4/TW-2 was installed.

The locations of these potential source areas are shown on Figure 2.

2.3 Soil and Groundwater Constituents of Concern

Past and recent investigations have identified various organic chemicals in on-site soil and in on-site and off-site groundwater. Historically, constituents consistently found in environmental media at the site have included:

Ketones: acetone, methyl ethyl ketone (MEK)

Pesticides: dieldrin, methoxychlor, heptachlor, lindane, alpha BHC and beta-BHC)

Herbicides: dinoseb, propanil

Chloromethanes: chloroform, methylene chloride

Chlorobenzenes: 1,2-dichlorobenzene, 1,4-dichlorobenzene, 1,2,4-trichlorobenzene, hexachlorobenzene

Chloroethenes: 1,2-dichloroethane (1,2-DCA), tetrachloroethene (PCE), trichloroethene (TCE), 1,1,2- trichloroethene

Non-chlorinated Aromatics: benzene, toluene, and xylenes

Other compounds: Including bis(2-chloroethyl)ether, 4-chloroaniline, and phenols

These constituents have been present both historically and currently in soils and groundwater throughout the Facility, and for certain constituents, beyond the Facility boundaries.

3.0 METHODS OF THE INVESTIGATION

Field activities, including drilling, cone penetrometer studies, and well installation, were conducted predominantly between March and November 2008. Groundwater sampling events were performed during January, July, September and November, 2008. The field investigation and related activities were performed in a manner consistent with the FI Workplan and Supplemental Workplans. Minor deviations from the procedures and methods described in these Workplans were documented, and are variances and non-conformances that do not affect the achievement of the FI objectives. The completion of FI objectives is discussed in Section 7.0, and reports describing the variances and non-conformances are included in Appendix A of this report.

3.1 Soil Borings and Temporary Monitoring Wells

AMEC Geomatrix advanced a total of 51 soil borings at the site utilizing direct push technique (DPT). The soil borings were drilled by Boart Longyear Company, based in Memphis, Tennessee. A summary of the various types of DPT borings advanced, including boring depths and analytical parameters, is as follows:

- **10 background borings – (BK-1 through BK-10)**

  The background soil borings were advanced along State Highway 242 at locations that could not reasonably have been affected by Facility operations. The background locations were approved in advance by ADEQ. The background borings were advanced to 15 feet below ground surface (ft-bgs). One surface soil sample (generally 0 to 5 feet bgs) and one subsurface soil sample (generally 10 to 15 feet bgs) from each boring was analyzed for pesticides, herbicides, and metals by EPA Methods 8081A, 8151A, and 6020, respectively.

- **17 Process Area soil borings – (DPT-0 through DPT-12, and DPT-36 through DPT-40)**

  The Process Area soil borings were advanced to the shallower of approximately 5 feet below the first observation of groundwater or to refusal. One surface soil sample (0 to 4 feet bgs) was retained at each boring. Based on the field screening results (i.e., elevated photoionization detector [PID] readings or visual indications), additional,subsurface soil samples were retained from select boring locations. Field screening results and selected subsurface soil sampling intervals are listed in Table 1. All of the soil samples retained were analyzed for Volatile Organic Constituents (VOCs), Semi-Volatile Organic Constituents (SVOCs), pesticides, herbicides, and metals by EPA Methods 8260B, 8270C, 8081A, 8151A, and 6020, respectively.

- **15 soil borings advanced in the areas of the former Dinoseb Disposal Ponds – (DPT-13 through DPT-27)**

  The Dinoseb Disposal Pond soil borings were advanced in and around the area of the former Dinoseb Disposal Ponds to attempt to verify the location and extent of

the pond(s) and to characterize soil and groundwater quality in and around the former ponds. Each boring was advanced to approximately 10 ft bgs. One surface soil sample (generally 2 to 4 feet bgs) was retained at each boring location. Additional subsurface soil samples were collected from select boring locations based on field screening results (Table 1). All of the soil samples retained were analyzed for pesticides and herbicides by EPA Methods 8081A and 8151A, respectively.

- **8 soil borings advanced in the vicinity outside of the Drum Vault – (DPT – 28 through DPT – 35)**

  The Drum Vault Area soil borings were advanced to an approximate depth of 5 feet below the vault's floor. This depth interval was based on several factors, including field observations, probing the inside of the vault during the Drum Vault inspection, and drawings provided by ADEQ that depicted the vault's construction. The borings were intended to assess whether the drum vault contents were contributing to soil and/or groundwater contamination. One soil sample from each boring was analyzed for VOCs, SVOCs, pesticides, herbicides, and metals by EPA Methods 8260B, 8270C, 8081A, 8151A, and 6020, respectively.

At the request of ADEQ, an expanded sampling protocol was used at three boring locations (DPT-18 and DPT-23) located near the former Dinoseb Disposal Pond, and DPT-39 located near the former dichloroaniline Process Unit 6. The expanded sampling protocol included collection of soil samples at these locations from near surface (2-4 feet bgs), and subsurface (14-16 feet bgs). At the completion of each soil boring, the borehole was backfilled to original grade with bentonite pellets, which were then hydrated to ensure an adequate seal.

3.2 Temporary Wells

Based on observed field conditions, 10 of the soil borings (DPT-2, DPT-4, DPT-9, DPT-12, DPT-17, DPT-23, DPT-33, DPT-35, DPT-36, and DPT-39) located in and around the Process Areas, the Drum Vault and the former Dinoseb Disposal Ponds were completed as temporary monitoring wells, screened within the Perched Zone. AMEC Geomatrix's on-site geologist selected the completion depth and screen interval based on the subsurface conditions encountered in the field at the time of drilling. The temporary wells were constructed of 1-inch polyvinyl chloride (PVC) riser and screen, with total depths generally from 24 to 27 feet bgs; each well had a nominal screen length of 10 feet. A single groundwater sample was collected from each temporary well. Following groundwater sampling, the well materials were removed from the ground and the borehole was backfilled to original grade with bentonite pellets, which were then hydrated to ensure an adequate seal.

All drilling and sampling equipment that contacted soils or groundwater during the DPT investigation was decontaminated prior to each use, at the project decontamination area on the east side of the facility near former Process Unit 4.

The analytical results are presented in Table 2. Boring and temporary well logs, and plugging and abandonment information are provided in Appendix B.

3.3 Cone Penetrometer Testing

A Cone Penetrometer Testing (CPT) investigation was performed at 19 off-site locations to identify highly transmissive zones (i.e., coarse sand and gravel layers) that could act as preferential migration pathways within in the Alluvial Aquifer, and to further characterize the lithology and hydrogeology of this aquifer. The CPT work was performed by Applied Research Associated, Inc. (ARA) based in South Royalton, Vermont. The CPT boring locations are presented on Figure 3.

At each location, a CPT rig was used to advance a borehole to the shallower of approximately 5 feet below the base of the Alluvial Aquifer at an approximate depth of 150 feet bgs, or to refusal. The CPT total depths ranged from 73.0 feet bgs at location CPT-13 to 151.6 feet bgs at location CPT-06. As the boring was advanced, the CPT system generated a continuous record of cone tip resistance and friction sleeve resistance. These were correlated by ARA to known soil types to generate a lithologic boring log. The CPT boring logs are provided in Appendix C. After reaching the total depth of the boring, the CPT probe was removed and the boring was sealed with bentonite grout.

3.4 Monitoring Well Installation and Development

AMEC Geomatrix installed 24 new monitoring wells during the FI field effort. Seventeen of the wells were installed within the Facility boundaries (MW-10 through MW-26) and seven of the wells were installed off site (OFF MW-5 through OFF MW-11). The locations and depths of Alluvial Aquifer wells were based on the results of the CPT investigation, the January and July 2008 groundwater sampling event and data gaps noted from previous investigations. New monitoring wells were constructed as either a conventional well or a Continuous Multichannel Tubing (CMT) well. This technology is a bundled type installation in one borehole that allows water level measurements and groundwater samples to be collected from 4-inch sections of stainless steel screen placed at specific depth intervals within the formation, and connected to the surface completion via flexible tubing. CMT wells were used at locations where multiple zones of the Alluvial Aquifer were to be screened by a single well.

The distribution of the 24 new wells is summarized as follows:

- 10 conventional wells (MW-10, MW-11, MW-12, MW-14, MW-16, MW-18, MW-19, MW-20, MW-21, and MW-24) were completed on site in the Perched Zone,

- 3 conventional wells (MW-13, MW-15, and MW-17) were completed on site in the Upper Alluvial Aquifer.

- One conventional well (MW-23) was completed on site in the Middle Alluvial Aquifer
- Two CMT wells (MW-22 and MW-25) were completed on site with screens in both the Middle and Lower Alluvial Aquifer
- One CMT well (MW-26) was completed on site with screens in all three Alluvial Aquifer zones.
- 7 CMT wells (MWOFF-5 through MWOFF-11) were installed off site; all of these wells had screens in all three Alluvial Aquifer zones.

Boreholes for all wells were drilled using rotasonic drilling techniques. All drilling activities were performed by Boart Longyear based in Memphis, Tennessee. The wells were surveyed by Cline-Fraizer based in Memphis, Tennessee.

During drilling, each soil core was field screened and logged by the on-site field geologist. Screening consisted of noting chemical odors and measuring organic vapors by means of a headspace check using a field organic vapor meter. One sample from each 10-foot interval underwent a headspace examination. The results are documented on the field logs (Appendix B).

Wells were constructed within the outer drive casing as that casing was withdrawn from the boring. The annular space around the well screen was filled with a filter pack of uniform high-silica sand. The filter pack typically extended 1 to 2 feet above the screen. The annular space above the filter pack was sealed with approximately 2 feet of bentonite chips. The remaining annular space was filled to near land surface with an annular seal consisting of bentonite-Portland cement grout. All conventional wells were constructed of nominal 2-inch diameter polyvinyl chloride (PVC) riser and mill-slotted screen.

All wells were developed following installation, in order to remove construction-related fluids and improve the hydraulic communication between the well and the formation. All of the new conventional wells were developed using a submersible pump. All of the CMT wells were developed using dedicated Mini Inertial Pumps. Development continued until field parameters measured during pumping reached a point of stability.

Construction information for all wells in the study area is summarized in Table3.

3.5 Groundwater Sampling

Groundwater samples were collected during the following sampling events:

- January 8 through 16, 2008 - Baseline event to sample 25 existing wells.
- March 31, 2008 - Interim event to sample TW-1 through TW-10.
- April 22, 2008 - Interim event to sample OFFMW-3 and OFFMW-4 on Syrgis Property and to attempt to collect groundwater samples from the temporary wells that were dry in March, 2008.
- July 7 through 16, 2008 - Major event to sample existing and newly installed wells.
- September 23 through 27, 2008 - Major event to sample existing and newly installed wells.
- November 3 through 7, 2008 - Interim event to sample CMT wells OFFMW-3, OFFMW-4, OFFMW-9 and OFFMW-11.

During the January 2008 event, AMEC Geomatrix sampled 25 existing monitoring wells. The four existing off-site wells (OFFMW-1 through OFFMW-4) were not sampled during this event due to access issues. Well 4MW-1 located at the Facility was not sampled due to off gassing observed at the well, and Well 4MW-2 could not be located.

During the March 31, 2008 interim event, groundwater samples were collected from TW-1, TW-2, TW-6 and TW-9. Temporary wells TW-3, TW-4, TW-5, TW-7, TW-8 and TW-10 did not produce sufficient water for sampling.

During the April 22, 2008, another attempt was made to collect a groundwater sample from the temporary wells that were dry in March, 2008. Due to the low yield from these wells, the amount of water collected at wells TW 2, TW-3, TW-4, TW-5,TW-7, TW-8, TW-9 and TW-10 was sufficient only for VOC analysis. Temporary wells TW-1 and TW-6 did not yield sufficient water for any analysis.

During the second major event performed in July 2008, AMEC Geomatrix sampled 25 existing wells and 22 wells installed as part of the FI, including four off-site CMT wells (OFFMW-5 through OFFMW-8). The only existing wells not sampled were well 4MW-2, which could not be located, well EMW-2, which did not produce enough water to collect a sample, and damaged well EMW-3.

During the third major event performed in September, AMEC Geomatrix sampled 25 existing wells and 24 FI wells. Monitoring well 4MW-1 was not sampled due to off gassing, 4MW-2 could not be located, EMW-3 was damaged and OFFMW-3 and OFFMW-4 were inaccessible due to being covered with dense brush. The brush was subsequently cleared to permit access to the wells.

The final interim event was performed November 3 through 7, 2008 to develop and sample new off site wells OFFMW-9 through OFFMW-11, and on site well MW-26. Off-site wells OFFMW-3 and OFFMW-4 that could not be accessed during the September event were also sampled.

Sampling Methods

Groundwater elevations were measured in all of the monitoring wells during each groundwater sampling event using an electric water level sounder, also referred to as an e-line. Water levels were measured to an accuracy of 0.01 feet in all new and existing monitoring wells. Data from these measurements are provided in Table 4. The e-line was decontaminated prior to each use.

All conventional monitoring wells were purged prior to sampling using low-flow purging procedures. Low-flow purging was performed by pumping from near the center of the saturated portion of the well screen using a Grundfos Rediflo-2 electrical submersible pump. Drawdown during purging was limited to a maximum of two feet. Flow rates during low-flow purging typically ranged from 150 to 200 milliliters per minute (ml/min).

CMT wells were purged prior to sampling using a Mini Inertial Pump. Tubing was extended to approximately the depth of the screened port openings. The reciprocating action of the pump then pumped water up the tubing and out of the well. Flow rates during purging typically ranged from 150 to 200 ml/min. Given the productivity of the Alluvial Aquifer zones screened by these wells, the purging rate is not believed to have caused any significant drawdown within the CMT wells.

Field parameters, including pH, specific conductance, temperature, dissolved oxygen, and turbidity, were measured during the purging process using a flow-through cell with a YSI Model 610-D/600-R water parameter instrument. Purging was considered complete when field parameters had stabilized. All wells were sampled within 24 hours of purge completion.

Certain Perched Zone wells could not support the minimal well yields needed for low-flow purging. When measured, these wells contained less than one foot of water. With concurrence from ADEQ, these wells were not sampled. Groundwater samples were submitted to Test America and analyzed for VOCs, SVOCs, pesticides, herbicides, and metals.

3.6 Aquifer Testing

During the week of July 21, 2008, aquifer tests were performed on selected new and existing wells in both the Perched Zone and Alluvial Aquifer, in order to characterize the hydraulic properties of the aquifers. The test methods utilized were step-drawdown pumping tests for

Alluvial Aquifer wells, and slug testing for Perched Zone wells. The Alluvial Aquifer monitoring wells tested were MW-23, 2MW-7, 9MW-1, 4MW-3 and EMW-6A. The Perched zone wells tested were 1MW-1, 1MW-3, 1MW-5, MW-16 and EMW-6B. The testing methods are described in the following paragraphs.

Step-Drawdown Testing

The five (5) Alluvial Aquifer wells chosen for step-drawdown testing were screened in different zones within the aquifer and located in different areas of the Facility. Water level changes were monitored in nearby wells to check for any response from pumping. In some cases, alternate wells were used when it was discovered that water levels were too low or obstructions prevented installation of the submersible pump in the wells originally targeted for pumping. Step-drawdown tests were run in the following wells:

- MW-23 (Middle Alluvial Aquifer well near the southwest corner of the facility in the former office area)
- 2MW-7 (Lower Alluvial Aquifer well near the southwest corner of the facility in the former office area)
- 9MW-1 (Upper Alluvial Aquifer well near the former Dinoseb Disposal Ponds)
- 4MW-3 (Upper Alluvial Aquifer well near the east warehouse)
- EMW-6A (Upper Alluvial Aquifer well near the south warehouse)

To perform the tests, 2-inch diameter submersible pumps with variable frequency drive flow controllers were installed in the wells, along with pressure transducers/recorders. All downhole equipment was decontaminated prior to installation. Initial water levels were measured in the pumping and observation wells using an electric water-level probe (e-line). The pumps were activated and run at a constant flow rate for approximately one hour before stepping to a higher flow rate. Flow rates were measured using a graduated container and a timer. Each test consisted of two to three steps. Only two steps were practical in some of the wells, based on well response. Data acquisition continued through well recovery.

Slug Testing

The five Perched Zone wells and their approximate locations were:

- 1MW-1 (Perched Zone well on the south side of Industrial Park Road in the area of the current wastewater ponds)
- 1MW-3 (Perched Zone well near the current wastewater ponds)
- 1MW-5 (Perched Zone well near the current wastewater ponds)
- MW16 (Perched Zone well near the former Dinoseb Disposal Ponds)
- EMW-6B (Perched Zone well near the southeast corner of the site)

Water levels were initially measured in the wells using an e-line. Next, a decontaminated pressure transducer/recorder was programmed to measure pressures on a one-second interval and the device was turned on. The unit was then disconnected from its control cable

and attached to a Teflon-jacketed, thin steel wireline, and lowered to the bottom of the test well. A bailer was then lowered into the well to a point below the static water level, and the water level in the well was allowed to return to near the initial static level. The bailer was then rapidly withdrawn. An e-line was used to occasionally check the water level, while the transducer measured and continued to record levels on one-second intervals. The test was ended when the e-line measurements indicated that the water level had recovered approximately 70-90 percent of the initial displacement. At this point the test was terminated and the transducer was removed from the well.

Results of the aquifer tests are provided in Appendix D and discussed in Section 5.0 of this report.

3.7 Drum Vault Evaluation

The drum vault is located in the central area of the facility. AMEC Geomatrix and United States Environmental Services (USES), a remedial contractor, conducted an initial field evaluation of the conditions of drums within the vault, and the floor, walls, and backfill material of the vault. The drum vault evaluation was performed on July 8 and 9, 2008. The field evaluation consisted of the following:

- Nominal 1-inch diameter borings were drilled by USES though the concrete warehouse floor, which forms the roof of the vault. One boring was drilled in each quadrant of the vault.
- Borings were advanced slowly through the concrete, measuring the depth as advancement occurred, to prevent the possibility of puncturing any drums present directly beneath the floor area. When the borings had penetrated into the vault, drilling was terminated, and residual drill lubrication was removed.
- The atmosphere of the vault was tested by USES for explosive conditions and organic vapors throughout the field investigation at each boring location.
- After the atmosphere was cleared, the concrete was saw-cut at each location, to remove a concrete slab approximately 4 feet square.
- After slab removal, conditions within the vault were visually inspected at each location, including drum condition, packing, and backfill condition.

The condition of the vault interior was visually inspected at each location by AMEC Geomatrix and USES field personnel. The depth to the vault floor was measured using a metal rod that was advanced by hand through the fill material. The probing suggested that the vault was floored with a hard material. Four to five feet of water was present in the vault at the time of inspection. This is not groundwater, given that the Perched Zone water table was encountered at an approximate depth of 20 feet bgs in the Drum Vault area; consequently, the

water observed in the vault, is accumulated rainwater that has entered the vault via joints or the strip drain that was formerly located along the center of the overlying building.

All vault inspection activities were photographed. One sample of the backfill material was collected from each of the entry locations and analyzed for VOCs, SVOCs, metals pesticides and herbicides. At the conclusion of the visual inspection, the openings in the vault were covered and sealed with grout and concrete.

At the completion of the work, the warehouse where the vault is located was closed and marked with no trespassing signs. Figure 4 shows the drum vault inspection locations and results of analysis. Photographs of the inspection activities are provided in Appendix E.

3.8 Water Supply Well Survey

The CCR presented information on a previous water well survey conducted in 1995 by EnSafe. The survey identified nineteen residences downgradient or cross-gradient from the Site with wells that formerly supplied residences with domestic water. Several of these residences were located within a one-mile radius of the site, primarily along Phillips County Road 300 to the northeast of the Facility. All of the residences, however, had reportedly been connected to the city water system for over 10 years at the time of the survey.

In order to update the well survey, AMEC Geomatrix performed a study to identify all residences and businesses within one mile downgradient (southeast) of the site. A request for information on well status was mailed to each identified residence or business. Although available resources at the Phillips County offices were reviewed and water user associations were contacted for information on these wells, no information was found regarding these wells.

AMEC Geomatrix therefore contracted Banks Information Solutions of Austin, Texas to perform a review of publicly available information to identify documented wells within a one-mile radius of the Facility. Based on that study, a total of 12 water wells were identified as being within a one mile radius of the property. Of these, only three wells were located potentially downgradient of Facility sources. Well locations identified by the Banks search are shown on Figure 5. Information from the Banks search is provided in Appendix F.

- Well #1 on Figure 5 is a well owned by Norac on their property in the industrial park, and mapped as being just northeast of the Blackhawk portion of the industrial park and the railroad, in a cultivated field. The purpose of this well is not identified in the search results, but given its location it seems likely to be used for irrigation. The well is described as being 110 feet in depth.

- Well #2 on Figure 5 is a well owned by Allen Hargraves, and mapped as being near the southern boundary of the Facility. The search results identify this as an irrigation well, with a total depth of 105 feet.

- Well #6 on Figure 5 is a well owned by Mr. Bill Brothers, and mapped as being on the south edge of the cultivated field immediately south of the Blackhawk facility, within the industrial park. The search results identify this as an irrigation well, with a total depth of 120 feet.

All three of these wells would therefore be completed in the Middle and/or Upper portions of the Alluvial Aquifer and none appear to be used for drinking water supply or domestic purposes. No supply wells were identified in the agricultural areas south of the industrial park.

3.9 Well Abandonment

As described in the CCR, monitoring wells have been installed at the Cedar Chemical facility during a number of investigations, commencing in the early 1980s. Completion information was not available for many of these wells, so it cannot be readily determined whether the condition of these wells is satisfactory. These wells were identified as representing a potential migration pathway from the surface to the Perched Zone, and potentially from the Perched Zone into saturated portions of the Alluvial Aquifer. One of the older wells was damaged and another periodically off-gassed. Given these concerns regarding construction, AMEC Geomatrix plugged and abandoned the following wells:

- Six unidentified wells (well construction and number could not be verified).
- 4MW-1 (well located in the Process Area that periodically off-gassed).
- EMW-3 (Damaged well located near the former Dinoseb Disposal Ponds).

Plugging and abandonment was performed using a Minisonic drilling rig supplied by Boart Longyear. Each well was overdrilled with a nominal 6-inch outer diameter (OD) core barrel to destroy and disrupt the grout seal and maximize removal of well construction materials from the borehole. The resulting borehole was then grouted to the surface with a Portland cement-bentonite grout from the bottom of the borehole to the ground surface. All well materials, soils and fluids removed from the subsurface during plugging and abandonment were managed as investigation-derived waste (IDW).

All abandonment procedures were performed to comply with the ADEQ Policy #HWD-002 Monitoring Well Construction, Geotechnical Boreholes and Plug and Abandonment Policy Memorandum. The former locations of the abandoned wells are shown on Figure 6. Well abandonment and plugging reports are provided in Appendix G.

3.10 Surveying

All monitoring wells were surveyed for location (x,y) and ground elevation (z). Monitoring wells were also surveyed for top of riser (casing) elevation. Cline-Frazier, a Tennessee professional surveyor based in Memphis, performed all surveying. The horizontal and vertical (x,y) elevations are based on an arbitrary benchmark relative to mean sea level that was established at the Facility by Cline-Frazier.

3.11 Investigation Derived Waste

Soil cuttings generated during the FI were placed into 55-gallon drums, or roll-off box containers and groundwater was placed into a frac tank. These wastes were characterized for profiling and disposal by sampling and analysis for the following parameters:

- TCLP analysis for VOCs (8260), SVOCS (8270), Metals 6010 and 7470)
- Pesticides (Method 8081)
- Herbicides (Method 8151 for 2,4,5,T and 2,4,5, T,P)
- Reactivity, Corrosivity and Ignitability (water only)

Analytical results indicated that all IDW was non-hazardous, with the exception of one 55-gallon drum that contained soil hazardous for 1,2-DCA. This drum was transported to Clean Harbors Environmental Services located in El Dorado, Arkansas for incineration. All of the water was metered into the sanitary sewer at the Facility and disposed at the Helena-West Helena POTW with the permission and oversight of the City of Helena Water Services Department. Non-hazardous soils were transported to and disposed of at the Tunica Landfill located in Robinsonville, Mississippi. All documentation for waste disposition is provided in Appendix H. No IDW from this FI remains at the site.

4.0 FINDINGS OF INVESTIGATION

This section of the FI Report describes the primary technical findings of the FI. The manner in which these findings and other available information meet the pertinent information needs described in the FI Workplan is described in Section 7.0 of the FI Report.

4.1 Site Hydrogeology

The hydrogeologic setting of the Cedar Chemical site and surrounding area has been extensively characterized by previous geologic, hydrogeologic, and environmental investigations. In general, hydrogeologic conditions observed during the FI were consistent with those described in reports of the previous investigations.

Observations in the field confirmed and further defined the presence and general character of the two near-surface hydrogeologic units in the site area described in this report as the Perched Zone and the Alluvial Aquifer.

4.1.1 Perched Zone

The upper Perched Zone is typically comprised of silty, high plasticity clays extending from ground surface to approximately 30 to 40 feet bgs. The Perched Zone is present under unconfined (water table) conditions. Given its proximity to the surface, this zone probably receives most of its recharge from surface and near-surface sources such as ponds, streams, and ditches. The Perched Zone was observed in all on and off-site soil borings and appears to be a laterally continuous zone. The low yield of many monitoring wells completed in the Perched Zone, however, demonstrates that the transmissivity of the Perched Zone is extremely low in some areas. The potentiometric surface of the Perched Zone for September 2008 is shown on Figure 7. It exhibits localized mounding in the south central area of the Facility, just north of the current wastewater ponds, and in the east-northeast portion of the site. Base on these observations, flow in the Perched Zone would be expected to be generally to the north from the Process Area portion of the facility, and generally to the south from the area of the wastewater ponds.

Given the hydraulic character of the Perched Zone, however, it appears that advective flow of groundwater is too slow to play a significant role in the lateral movement of groundwater constituents away from their source areas or from the Facility property. The gradient in the Perched Zone as calculated from the potentiometric surface map is between 0.011 and 0.025 ft/ft. Slug testing performed during the FI reported hydraulic conductivity (K) values ranging from an estimated 1.6 to 3 gallons per day per square foot (gpd/ft^2) (equivalent to a range of 7.6×10^{-5} to 1.4×10^{-4} centimeters per second, or cm/sec). This equates to very low groundwater velocities, calculated to fall in the range of only 5 to 25 feet/year, with an average of 10 feet/year (Table 5).

4.1.2 Alluvial Aquifer

Based on field observations, the Alluvial Aquifer appears to be one continuous unit extending from approximately 45 to 150 feet bgs with three distinct lithologic intervals. The upper portion of this aquifer, from approximately 45 to 70 feet bgs, consists of fine-grained sand with interbeds of gravel. The middle section, from approximately 70 to 130 feet bgs, consists of fine to medium sand, and exhibits some coarsening with depth. The lower section of the Alluvial Aquifer, from approximately 130 to 150 feet bgs, consists of medium to coarse sands with interbeds of gravel and cobbles. The interbeds of gravel and cobbles observed in this aquifer vary in thickness and lateral extent, but are believed to potentially function as preferential pathways for groundwater movement within the Alluvial Aquifer. Figure 8 provides a cross-section depicting the Alluvial Aquifer and Perched Zone in the study area. The location of this cross section is shown on Figure 9.

Groundwater is present in the Alluvial Aquifer under unconfined conditions. The presence of Perched Zone constituents of concern in shallow Alluvial Aquifer groundwater indicates that the aquifer is receiving some groundwater by leakage from above. This information supports that the Perched Zone is the main source for contaminants in the Alluvial Aquifer. Given the hydraulic gradient, conductivity and porosity of the Alluvial Aquifer, once contaminants reach the Alluvial Aquifer, it appears they are transported through advection downgradient from the Facility.

Horizontal gradients within all portions of the aquifer were consistently to the southeast. Figures 10 and 11 show the potentiometric surface of the upper Alluvial Aquifer for July and September 2008. As shown, groundwater elevations recorded during the January and September 2008 groundwater sampling events indicated a relatively flat gradient with flow towards the southwest at an average gradient of 0.00025 ft/ft. In July 2008, the gradient in this zone was steeper and towards the southeast with an average value of 0.0016 ft/ft. This variation may reflect increased irrigation pumping from this zone during the summer months. Potentiometric maps for the middle and lower Alluvial Aquifer for July and September are not presented because the water levels did not vary enough to show a gradient, and when mapped show a flat potentiometric surface.

At locations where wells screened multiple depths within the aquifer, water levels were consistently identical. This suggests either a remarkable degree of communication between zones at different depths within the aquifer, or a possible problem with water level data acquisition. These measurements do not allow any evaluation of possible vertical gradients within the Alluvial Aquifer. Aquifers of this type, however, often exhibit some degree of downward vertical gradients, typically driven by pumping from the lower portion of the saturated zone. As one moves farther downgradient from the Facility, the 1,2-DCA

concentration is typically higher in the deeper portions of the Alluvial Aquifer at a given well which suggests that some degree of downward vertical gradient exists at the site.

Step-Drawdown tests performed in selected Upper Alluvial Aquifer wells yielded hydraulic conductivity values ranging from approximately 40 to over 1,200 gpd/ft^2 (equivalent to approximately 1.89 x 10^{-3} to over 5.7 x 10^{-2} cm/sec). The resulting range of groundwater velocities calculated for the July 2008 data is 12 to 402 feet/year, while the range calculated for September 2008 is 2 to 63 feet/year.

4.2 Chemical Impact to Environmental Media

The following sections summarize the character and extent of chemical impact identified by the FI on a media-specific basis; i.e., for soils and groundwater.

4.2.1 Soils

Analytes detected in on-site soils during the FI and their respective concentrations are summarized in Table 2. The spatial distribution of these chemicals is shown on Figures 12 through 16. As shown in these Figures, most of these soil exceedances were observed in the Process Areas and former waste disposal areas such as the Drum Vault and former Dinoseb Disposal Ponds.

The following VOCs and SVOCs were detected during the FI in soils at levels above a regulatory standard:

- Chlorobenzenes – 1,2-dichlorobenzene (1,2-DCB), 1,4-dichlorobenzene (1,4-DCB), chlorobenzene, 1,2,4-trichlorobenzene, and hexachlorobenzene
- Ketones – acetone
- Non-Chlorinated aromatics – toluene, ethylbenzene, xylenes
- Chloromethanes – methylene chloride
- Chloroethenes – 1,2-dichloroethane (1,2-DCA) tetrachloroethene (PCE), trichloroethene (TCE), 1,1,2- trichloroethene
- Phenols – 2,4-dinitrophenol,2-methylphenol
- 4-Chloroaniline
- Dinoseb
- Isophorone

Volatile and Semi-Volatile Organic Constituents

The VOCs and SVOCs observed in soils include scattered low detections of acetone and methylene chloride. These compounds have historically been observed in trip and field blanks. This observation, and experience at other sites would suggest that at least some of the detections of these compounds in soil are likely artifacts of sampling and/or analytical procedures. Despite this, concentrations in certain soil samples and in Perched Zone groundwater are too high to be explained as laboratory or sampling artifacts, and both these compounds were believed to have been utilized at the Facility. Acetone and methylene chloride are therefore included as COCs for the Facility.

Organochlorine Pesticides in Soils

Organochlorine pesticides, (aldrin, alpha-BHC, beta-BHC, chlordane, dieldrin, endrin, gamma-BHC [lindane], methoxychlor) were detected in surface and subsurface soils throughout the facility at locations in the Process Areas, in backfill from samples collected within the Drum Vault, and in a few background samples above a regulatory standard.

Backfill samples collected from two locations within the Drum Vault contained only one pesticide, 4-chloroaniline. The concentration of this COC ranged from 4.0 to 11 mg/kg. The water sample collected from Test Hole #1 in the Drum Vault contained several pesticides and herbicides. These included 4-chloroaniline (47000 ug/l), dinoseb (350 ug/l), and propanil (2800 ug/l). Soil and water analytical results from the Drum Vault are rpesented in Tables 6 and 7.

Metals in Soils

Soils were analyzed for a range of metals at most of the DPT locations. These were compared to values observed in background sampling locations. In general, metal concentrations observed in on-site soils were consistent with the ranges observed in off-site soils that are not believed to be affected by historical Facility operations.

One exception would be the detections of arsenic observed in soils from DPT-3, DPT-10 (near former Process Unit 3) and DPT-30, near the Facility Maintenance Building. The observed arsenic concentrations (ranging from 32.3 to 128 mg/kg) although relatively low, are well above observed background concentrations. This suggests there may have been minor localized releases of an arsenic source material in these areas. It is also possible, however, that these may be a relict of routine pesticide application around building exteriors at the Facility.

4.2.2 Groundwater

Analytes detected in the Perched Zone and Alluvial Aquifer and their respective concentrations are summarized in Tables 8 through 10; the spatial distribution of these chemicals is summarized on Figures 17 through 33. Isoconcentratrion maps were prepared for COCs which exhibited sufficient detections and spatial distribution to support contouring; these are presented on Figures 21 through 26. The COCs observed in each groundwater zone are discussed in the following sections.

Perched Zone Groundwater Impacts

The following VOCs, SVOCs, and Pesticides and Herbicides were observed in Perched Zone wells above a regulatory action level:

VOCs and SVOCs:

- Chloroethanes – 1,2-dichloroethane (1,2-DCA)
- Chlorobenzenes – chlorobenzene, 1,2-dichlorobenzene (1,2-DCB), 1,4-dichlorobenzene (1,4-DCB)
- Non-Chlorinated aromatics – benzene, toluene, ethylbenzene, xylenes (BTEX), styrene
- Chloromethanes – methylene chloride
- Acetone
- Chloroform
- 2-Butanone (MEK)
- Dinoseb
- 4-Chloroaniline
- Propanil
- Nitrobenzene
- Phenols -2,4-Dinitrophenol

Pesticides/Herbicides:

- alpha-BHC, beta-BHC, gamma-BHC (lindane), dinoseb, aldrin, heptachlor, dieldrin

As shown in Figures 17 through 26, one can observe the following in the distribution of certain key COCs in Perched Zone groundwater:

- 1,2-DCA is present at highest concentrations in the area of former Process Unit 6 (the DCA Unit). Lesser concentrations were detected in the areas of former Process Units 3, 4 and 5. Lower concentrations of 1,2-DCA were detected in soil throughout the process area.

- Acetone, methylene chloride and toluene exhibit areas of high concentration beneath former Process Unit 6 and in the area of former Process Units 1 (Permethrin and Propanil Unit) and 2. Dinoseb exhibits a similar distribution, except that high concentrations are present in more of a band shaped area between these two areas, rather than two separate location of concentrations.

This is consistent with the presence and location of the Dinoseb Disposal Ponds, which are considered likely sources of this COC to soil and groundwater.

- 4-Chloroaniline, in contrast to other observed COCs, exhibits an area of maximum concentration outside the central Process Area and disposal locations and near the southern edge of the main Facility property. This compound may have been released in storm water and conveyed to the south portion of the plant site in storm water ditches. This distribution however may be strongly influenced by the absence of data for this COC in the former Process Units 1 through 5 (the north part of the Facility). As discussed in the next section, there is an area of elevated 4-chloraniline in Alluvial Aquifer groundwater just south of former Process Units 1 and 2, suggesting a possible source for this compound near that location. Also, based on its distribution, a possible secondary source for this compound may be the former wastewater ponds located on the north-northwest area of the Facility.

Several COCs, including 1,2-DCA, acetone, and toluene were detected at relatively high concentrations near the northeastern and southern boundaries of the Facility, and may extend off site in those directions. Given the low groundwater velocity of the Perched Zone, however, it is extremely unlikely they have moved far beyond the property boundary.

In terms of magnitude, 1,2-DCA was present in Perched Zone groundwater at a maximum concentration of 730,000 ug/l, well over an order of magnitude higher than the maximum observed concentration in Alluvial Aquifer groundwater. A similar pattern was observed for 1,2-DCB. This suggests that most of the mass of this and other COCs is probably continuing to be held up in the low permeability materials of the Perched Zone.

Alluvial Aquifer Groundwater Impacts

The VOCs, SVOCS, and pesticides, and herbicides that were detected in Alluvial Aquifer groundwater above a regulatory limit are illustrated in Figures 27 through 33. The exceeding COCs observed are as follows:

VOCS:

- Chloroethanes – 1,2-DCA, 1,1,2-TCA
- Chlorobenzenes – chlorobenzene,1,2-DCB, 1,4-DCB,
- Non-Chlorinated aromatics –benzene, xylenes
- Chloromethanes – chloroform, methylene chloride
- 1,2-Dichloropropane
- Vinyl chloride

SVOCS:

- Chlorobenzenes - 1,2-DCB, 1,3-DCB, 1,4-DCB
- 4-Chloroaniline
- Bis(2-chloroethylether)
- Aniline

Pesticides and Herbicides:

- Beta-BHC, Gamma-BHC (lindane), aldrin, heptachlor epoxide, and dinoseb.

Constituents Detected in the Alluvial Aquifer

In the vicinity of the Facility, the highest concentrations of the COCs listed above were observed in the upper portion of the Alluvial Aquifer. This pattern suggests that these compounds are leaking downward from the overlying Perched Zone. As discussed above, both the magnitude and numbers of constituents in the Alluvial Aquifer, however, are significantly lower than in the Perched Zone. This is consistent with most of the mass of chemical impact being retained in the shallow clays and silts, and slowly leaking downward into the Upper Alluvial Aquifer groundwater. It is recognized, however, that dilution in the much more transmissive Alluvial Aquifer, as well as other attenuation factors there, may also be contributing to this pattern.

The four most prevalent Alluvial Aquifer groundwater constituents, in terms of distribution and magnitude, were 1,2-DCA, 1,2-DCB, 4-chloroaniline, and dinoseb. With the exception of 1,2-DCA, the balance of these compounds exhibit a generally similar pattern of distribution across the Facility (Figures 30 through 33), extending from the North Process Area and the former wastewater ponds and former Process Unit 6 to approximately the Facility boundary in the south and southeast. Some of these COCs, particularly 4-chloroaniline, may extend beyond the Facility boundary to the south, although their absence in off-site downgradient wells indicates they do not have a significant off-site extent.

1,2-DCA, consistent with historic patterns, extends beyond the southeast Facility boundary to at least the southeastern boundary of the industrial park (Figure 33) at concentrations above screening levels. Due to access restrictions beyond the southern edge of the industrial park, it was not possible to install additional wells or sample existing monitoring wells in these areas to fully delineate the downgradient extent of the 1,2-DCA impact. The Agency for Toxic Substances and Disease Registry (ATSDR) performed a study on 1,2-DCA in groundwater in August 2005. Offsite irrigation well AG-1 located downgradient of the Cedar property was sampled. The results issued in the *Health Consultation Report* dated June 16, 2006, indicate that on the basis of the analytical results from samples collected from this well, 1,2-DCA was below its respective health comparison values and the ATSDR indicated that the groundwater posed no apparent public health hazard to exposed individuals. In this same report, the

ATSDR allowed this well to be returned to normal operation. As noted above, no supply wells were identified in this particular area during the Banks water well search performed. Given that land use in this direction is all agricultural, if undocumented wells are present in this area, they would likely be used for agricultural purposes rather than drinking water or domestic supply.

The highest concentration of 1,2-DCA in Alluvial Aquifer groundwater was observed in an off-site well, OFF-MW-6, which is located approximately 750 feet beyond the Facility southern boundary. At this well, 1,2-DCA concentrations in the various Alluvial Aquifer levels ranged from 4,800 to 19,000 ug/l, as opposed to the maximum on-site observed concentration of 1,600 ug/l. Note that the OFFMW-6 concentration, however, is well below the maximum Perched Zone groundwater concentration of 730,000 ug/l observed on site. In addition, the higher OFFMW-6 concentrations observed were in the deeper Alluvial Aquifer zones.

These factors suggest that the elevated concentrations of 1,2-DCA at this off-site location may have been derived from the Facility, and are gradually moving southward as a “slug” or body of COCs, carried by the advective movement of Alluvial Aquifer groundwater. The fact that levels are significantly higher than on-site levels suggest that contribution from on-site sources has diminished, likely associated with the termination of Facility operations. Under this scenario, this slug of 1,2-DCA would represent a relict of former releases from the Facility that is gradually moving away from those now inactive sources. If future groundwater monitoring continues to show southward movement of these higher concentrations, that would provide further support for this interpretation. Note also that these concentrations, while higher than those observed in other wells sampled during the FI, are significantly lower than 1,2-DCA groundwater concentrations that have historically been documented to be present in the Alluvial Aquifer ground water.

The presence of higher 1,2-DCA concentrations in deeper screens of those downgradient wells along the axis of the plume (i.e, OFF-MW-6 and OFF-MW-8) suggests that advective groundwater movement has a downward component within the aquifer. This may reflect a slight downward vertical gradient, or possibly anisotropy within the aquifer controlled by the distribution of more transmissive gravel-dominated zones.

4.2.3 Comparison Of Current And Historical Groundwater Data

In order to evaluate historical trends in Alluvial Aquifer COCs, maximum concentrations observed during 2008 FI sampling for all detected organic constituents were compared to maximum historical concentrations for these constituents. In addition, the number of COCs detected in the FI were compared to historical data.

As shown in Table 11 maximum concentrations of most constituents in Alluvial Aquifer groundwater have declined from historical highs. Examples include 1,2-DCA (FI maximum of 19,000 ug/l vs historical maximum of 92,000 ug/l), 4-chloroaniline (FI maximum of 2,100 ug/l vs historical maximum of 8,700 ug/l), and dinoseb (FI maximum of 27 ug/l vs historical maximum of 980 ug/l). Most of the exceptions to this trend represent compounds that were detected at low levels during the FI, but that were not detected during the historical site investigations. Given that historical investigations of the Facility continued nearly to the end of Facility operations, these newly-observed low detections most likely represent either on-going improvements in analytical procedures or sampling in previously uninvestigated areas, rather than any new release from the Facility.

A large number of compounds that have historically been detected in Alluvial Aquifer groundwater were not detected in any FI samples. These include dieldrin, acetone, and trichloroethene (TCE). In addition, certain compounds that were formerly detected in off-site Alluvial Aquifer wells, such as 1,2-DCB, now appear to be largely constrained to groundwater in on-site areas.

In general, these trends indicate that contaminant levels and contaminant mass in the Alluvial Aquifer have declined significantly since operations concluded at the Facility. Although a conclusive evaluation of the data with respect to possible natural attenuation trends would require additional evaluation, the FI data does strongly suggest that such attenuation is occurring in the Alluvial Aquifer.

5.0 AQUIFER TESTING

Aquifer tests were performed on selected new and existing wells in both the perched and Alluvial Aquifers. Five wells in each of the aquifers were chosen for testing. Step-drawdown tests were performed in the wells completed in the Alluvial Aquifer, and slug tests were performed in the perched-aquifer wells. The tests were run to evaluate the flow regimes of both aquifers, with a goal of obtaining, at minimum, an estimate of hydraulic conductivity (K). Aquifer test results are presented on Figure 34. .

Step-Drawdown Testing Results

The data from the step-drawdown testing were analyzed to provide an evaluation of general aquifer conditions to aid in estimating the mobility of constituents of concern and the radius of influence of hypothetical pumping wells. The analyses described below resulted in estimates of transmissivity (T) and hydraulic conductivity (K). Given the productivity of the Alluvial Aquifer, however, the pumping rates and/or the duration of pumping used during the step-drawdown testing were not sufficient to allow for measurement of the radius of influence.

The FI Workplan specified that the maximum water level drawdown during the step testing would not exceed 50 percent of the available drawdown (distance between the static water level and the top of the well screen). In some cases, however, the available drawdown was so small that this criterion was exceeded.

The FI Workplan also specified that wells would be pumped at up to five flow rates, increasing the rate for each succeeding step. In practice, most wells were pumped at only three different rates due to limited available drawdown or to time constraints. Each step rate was maintained for approximately one hour. The data are summarized on the worksheets in Appendix D. The key data were the flow rate and the total drawdown at the end of each step. A chart of the water levels versus time during the step test is included on each worksheet. The water levels shown are in the form of transducer submergences.

A chart showing the specific capacity at the end of each step versus the flow rate at the end of the step is also included on each worksheet. For T estimation purposes, the value of specific capacity projected to occur at zero flow rate was chosen, to eliminate as much as possible the effects of “extra” drawdown due to nonlinear well losses or due to the reduction in saturated thickness that occurs near a pumping well in an unconfined aquifer.

For the purpose of this preliminary evaluation, specific capacities measured in the step tests were converted to estimates of transmissivity using conversion factors based on Jacob’s modification of Theis’ (1935) nonequilibrium equation for drawdown in an infinite homogeneous aquifer, as described by Driscoll (1986). The observed specific capacities

measured at the site were used to estimate transmissivity by multiplying them by modified, project-specific conversion factors developed using the equations provided by Driscoll (1986).

The estimates of T are general estimates based on simplifying assumptions. The usual conversion factors (2,000 for a confined aquifer and 1,500 for an unconfined aquifer) were developed using the Jacob-Theis equation and sets of assumed aquifer properties, well geometries, and pumping durations judged to be “typically” encountered in groundwater practice (Driscoll, 1986). Since the well size (one-foot diameter) and pumping duration (one day) used in development of the standard conversion factors differed substantially from the smaller wells and shorter pumping durations used in the testing at the Cedar site, a more realistic site-specific conversion factor was calculated using the Jacob equation. The final value used was 1,300.

The values of T and K calculated for the step tests are summarized on Table 5. The K values were obtained by dividing T by the aquifer thickness, assumed to be equal to the length of the screened interval of the test well. The values should be considered to be rough approximations of the actual aquifer properties. The tests may have been affected by well losses resulting from inadequate well development, which could cause underestimation of K and T. Also, since the wells are partially penetrating, the transmissivity of the screened interval could be overestimated, and true T and K values of the screened intervals could be less than those shown.

The estimated hydraulic conductivity (K) values estimated by step-drawdown tests at the Cedar site are shown on Table 5. The values range from 40 gpd/ft^2 (1.9 x 10^{-3} cm/sec) to over 1200 gpd/ft^2 (over 6 x 10^{-2} cm/sec). These values could underestimate the true K of the water-bearing unit if wells were not developed sufficiently to completely remove drilling debris (skin effect). The values could also overestimate true K if the effect of partial penetration is significant, since the K values were calculated by using transmissivity (T) values estimated from specific capacities observed during the step testing. To obtain K, T was divided by the length of the well screen. The appropriate length to use could be significantly underestimated in these partially-penetrating wells if significant flow to a well during the test was contributed by zones above and/or below the screened interval. More accurate measurements of K could be obtained in specific areas by conducting constant-rate pumping tests at higher flow rates in selected wells. Also, estimates of the radius of influence could be made by performing pumping tests with larger wells at higher flow rates.

The K and T values observed Illustrate that the Alluvial Aquifer is quite transmissive and capable of significant water yields. The wide range of values observed, also illustrate the variability of the aquifer. All of these results are consistent with other available information on the hydrogeology of the Alluvial Aquifer, including the observed lithology (both in terms of

general character and of variability), the nature of Alluvial Aquifer groundwater use in the area, which is consistent with its observed lithology. In comparing these values to those obtained for the Perched zone, it is also clear that the Alluvial Aquifer is significantly more transmissive than the clays and silts of the shallow groundwater zone. Again, this is completely consistent with expectations based on lithology.

Slug Testing Results

The data from the slug tests were also analyzed to provide an evaluation of general conditions in the perched and Alluvial Aquifers. The analyses described below resulted in estimates of hydraulic conductivity (K) of the water-bearing units.

The tests consisted of inserting a bailer in the test well, waiting for the water level to recover to near static conditions, and rapidly withdrawing the bailer. A transducer was used in each well to measure and record the resulting changes in water level.

The data were analyzed by the AQTESOLV® well test analysis software using the method of Bouwer and Rice (1976), including the later modifications noted by Bouwer (1970). The 1970 paper pointed out that when the water table intersects the screened interval of the test well, removal of a slug of water from the well screen will typically result in an initial, rapid inflow of water into the evacuated well screen from the gravel pack. This phenomenon affected four of the five wells tested.

The results of the well test analysis are shown on the printed results sheets generated by the analytical software. Straight lines were fitted to the appropriate intervals of the data plots, as shown on the worksheets in Appendix D. The values of K calculated from the slug tests are summarized on Table 5 The values should be considered approximate.

The estimated hydraulic conductivity (K) values ranged from 1.6 gallons per day per square foot (gpd/ft^2) (7 x 10^{-5} cm/sec) to 7.2 gpd/ft^2 (3.4 x 10^{-4} cm/sec) with an average of about 3 gpd/ft^2 (1.4 x 10^{-4} cm/sec). The values appear to be reasonable for the lithology indicated on the boring logs. The values could underestimate the true K of the water-bearing units tested if partially-penetrated units have significant anisotropy or if wells are poorly developed to remove drilling debris (skin effect). The range of values may give an indication of the variability of the K of the perched aquifer from place to place.

6.0 SOIL BACKGROUND EVALUATION

As discussed earlier, background sampling was performed along State Highway 242 to the west of the Cedar site. This study was performed to establish background conditions for comparison to on-site analytical results for soil. The Facility is located in a highly industrial and agricultural area with known and potential sources of waste releases and pesticides and herbicide use. This presents a challenge to the evaluation of chemical data from an investigation such as the FI.

Background samples were also collected and analyzed for pesticides. All of the background soil sample results were reported as non-detect. Onsite soils where pesticides were detected are likely from soil contamination at those locations. Background data for metals and tabulated comparisons are presented in Table 12.

The mean background concentrations for metals in soils at the Cedar Chemical property in West Helena, Arkansas were calculated using the methods described in USEPA's Statistical Training Course for Groundwater Monitoring Data Analysis. The guidance in the training course manual was used to determine the methodology for analyzing the soil background concentration data. The methodologies used in the data analysis were:

- The Shapiro-Wilk Test of Normality for less than 50 data points.
- Statistical outlier determination for normally distributed data as described in Section 6 of the USEPA guidance.
- The student's t-test to determine the background concentration uncertainty.

Determination of the data normality was required for the statistical outlier calculations. The Shapiro-Wilk Test of Normality was specified as the USEPA's preferred method for determining normality of a sample set of less than 50 data points in the USEPA guidance document.

Each metal had a normal distribution when the outliers were removed except for aluminum, antimony, silver, and sodium. The lack of normality for antimony and silver can be explained by the large number on non-detect values which altered their data sets. The cause of non-normality for aluminum and sodium is unknown.

The statistical outlier determination found 8 outliers out of the 460 total data points using a significance of 5%. The statistical outliers were:

- 128 mg/kg of arsenic in sample BK-10 (0-5)

- 4,390 mg/kg of calcium in sample BK-3 (0-6)
- 5.1 mg/kg of copper in sample BK-5 (0-5)
- 37.3 mg/kg of lead in sample BK-8 (0-5)
- 2,690 mg/kg of manganese in sample BK-3 (0-6)
- 29.2 mg/kg of nickel in sample BK-9 (10-15)
- 0.33 mg/kg of silver in sample BK-3 (0-6)
- 1,960 mg/kg of sodium in sample BK-4 (0-5)

The student's t-test as described in Section 2.0 of *Perry's Chemical Engineering Handbook* was chosen to determine the uncertainty because it is a robust method which can be used with normally or non-normally distributed data and because student's t-test can use calculated standard deviation and mean, which are estimates of the true standard deviation and mean.

The estimated metals background concentrations for the site are presented in Table 11, along with the 95% probability range of the true background concentration using the student's t-test uncertainty. The estimated background concentration for each metal is the mean of the concentrations with any statistical outliers removed and the non-detect values set at the detection limit.

Data from the background study indicate that arsenic, barium, chromium and nickel concentrations detected in one or more on-site soil samples were present at concentrations that exceeding both background concentrations and a regulatory level. When compared to the average concentration of selected metals in soils, (USEPA Groundwater Issue, Behavior of Metals in Soils, EP/540/S-92-018, Lindsey, 1979), however, there were no on-site soil quality exceedences for metals.

7.0 COMPLETION OF INVESTIGATION OBJECTIVES

Based on the requirements of the CAO and Supplemental Agreement, and as specified in the approved FI Work Plan, the FI was intended to better characterize:

- Perched Zone hydrogeology including extent and thickness, seasonal variability, groundwater flow velocity, and hydraulic conductivity,
- Alluvial Aquifer hydrogeology, including groundwater flow velocity, hydraulic conductivity, presence of highly transmissive natural features, and basic geochemical properties of the Alluvial Aquifer,
- Chemical impact to the Perched Zone and Alluvial Aquifer groundwater, including assessment of the sources, character, and extent of chemical impact in the two groundwater zones.
- Waste disposal areas, including further delineation of the extent of waste remaining on site that may be behaving as a source of groundwater contamination, and or current concentrations in soil and groundwater adjacent to waste disposal areas,
- Exposure pathways and the potential for the current or likely future groundwater use within and near impacted groundwater plumes, and
- Provide other data necessary for selection of an appropriate remedy.

In order to develop the scope of the FI, AMEC Geomatrix considered available information regarding the site (see the Description of Current Conditions), and identified the specific objectives detailed in Section 2.0 of this FI Report.

The following section discusses the achievement of each objective by the FI.

Objective: Perched Zone Hydrogeology including extent and thickness, seasonal variability, groundwater flow velocity, and hydraulic conductvity.

FI activities to meet this objective have included soil logging during drilling and DPT, monitoring well installations, slug testing, and CPT investigation. The hydrogeology of the Perched Zone, including groundwater flow directions and rates, is now generally understood for the Facility area. One of the most salient findings with respect to Perched Zone hydrogeology, as discussed in this report, is that advective groundwater movement is likely too slow to likely play a major role in lateral COC migration away from the Facility.

Objective: Quantify the character and extent of chemical impact in the Perched Zone and Alluvial Aquifer groundwater, including assessment of the source, character, and extent of chemical impact in the two groundwater zones.

FI activities to meet this objective have included soil and groundwater sampling at locations across the Facility, with focus on former Process Units and former disposal locations considered to be potential sources. As discussed in previous Sections of this report, this work has identified several locations of higher concentrations for specific COCs in the Perched Zone, suggesting likely source area locations. Although the extent of certain COCs in groundwater extends beyond the Perched Zone well network, the low groundwater velocities in this zone make it unlikely that they have any significant extent in these areas. The concentrations of COCs observed were generally substantially higher in Perched Zone vs. Alluvial Aquifer groundwater, suggesting that most of the contaminant mass is being retained in the shallow, low permeability sediments of the Perched Zone.

Alluvial Aquifer COCs in groundwater have been generally delineated, with the exception of 1,2-DCA, where downgradient delineation was limited by access restrictions. Downgradient groundwater use from the aquifer is believed, however, to be solely agricultural. A small number of COCs were also detected at upgradient and cross gradient perimeter wells, but the low concentrations observed and locations of these wells relative to gradient suggest they are likely close to the plume's edge.

The data as presented on the maps also suggests that COC mass and plume size in the Alluvial Aquifer have generally declined since Facility operations ceased. This suggests that attenuation factors may be active in this aquifer, although further evaluation would be needed to confirm this.

Objective: Further delineate the extent of waste, waste disposal areas, including further delineation of the extent of waste remaining on site that may be behaving as a source of groundwater contamination, and of current concentrations in soil and groundwater adjacent to waste disposal areas.

FI activities to meet this objective have included the Drum Vault evaluation, soil logging during DPT and drilling, and groundwater sampling in the Perched Zone at or near suspected waste disposal areas. This work has resolved several unknowns regarding the character and integrity of the Drum Vault and has identified the former Dinoseb Disposal Ponds as a likely source area for groundwater COCs.

Objective: Evaluate the use of local groundwater resources to support a human health risk assessment, including and evaluation of Exposure pathways and the potential for current or likely future groundwater use within and near impacted groundwater plumes.

To meet this objective, a review of available records of water wells within one mile of the site was performed and the review revealed that 12 water wells are located within 1 mile of the property. These wells appear to be irrigation wells. A request for information on well status was mailed to each identified residence. As of the date of this report, no responses have been received. An attempt has been made to complete this objective, but due to the lack of response from well owners, it was not possible to confirm the existence and status of the wells and estimation of exposure pathways or future use could not be evaluated. Consequently, this task is considered incomplete.

Objective: Plug and abandon damaged wells and wells with missing construction information.

During the FI work, AMEC Geomatrix identified seven wells as having either no construction information or construction problems. All of these wells were plugged and abandoned in compliance with the ADEQ Policy #HWD-002 Monitoring Well Construction, Geotechnical Boreholes and Plug and Abandonment Policy Memorandum.

Objective: Provide data necessary for selection of an appropriate remedy.

The FI work has significantly advanced the level of knowledge regarding the Facility, its setting, and the sources, character, and extent of COCs in soils and groundwater. The information developed, in concert with historical data, should be sufficient for the preparation of a Feasibility Study for the site. The Feasibility Study effort would include the development of remedial objectives, screening of various remedial alternatives, and selection of those remedies most likely to be effective in meeting the remedial objectives.

Depending upon the remedies selected, however, it may be necessary to acquire additional data to support a final remedial design or remedy decisions. Examples would include data acquired through bench or pilot scale testing of various remedies, or data acquired through continued groundwater monitoring to better evaluate temporal trends. Given that the collection of such data is clearly beyond the scope of the FI, however, these factors do not affect the completeness of this study, and this objective is considered to have been met.

8.0 CONCLUSIONS

AMEC Geomatrix has performed a FI on behalf of the Group at the Ceder Chemical Company site in Helena-West Helena, Arkansas. The FI was performed as a part of a Group response to a CAO issued on March 22, 2007 and a Supplemental CAO issued on March 25, 2008. These documents directed the Group to evaluate the character and extent of chemical impact in soils and groundwater from potential sources on the Cedar Chemical Facility. The Group and AMEC Geomatrix developed site specific goals with related information needs to attain the CAO and Supplemental CAO objectives. These goals were developed through discussions with ADEQ, and in consideration of existing information acquired for the site.

The FI utilized a number of investigative techniques to acquire data. These included soil borings, monitoring wells, CPT, and aquifer testing. These activities were performed in a phased approach and a series of field events during the period January 2008 through November 2008.

The primary conclusions of the FI are:

- Site groundwater is present in two water bearing zones. The shallower is termed the Perched Zone, and the deeper is the Alluvial Aquifer. The Alluvial Aquifer is further subdivided into Upper, Middle and Lower Alluvial for the purposes of this evaluation.

- Advective groundwater flow within the Perched Zone, and related lateral COC transport, is believed to be highly limited by the low hydraulic conductivity of this zone.

- The Alluvial Aquifer, in contrast, is highly transmissive, with groundwater flowing generally from the Facility toward industrial park and agricultural properties to the south.

- Hydraulic head between the Perched Zone and the Upper Alluvial Aquifer ranges from 11.4 to 22 feet indicating that downward migration of COCs from the Perched Zone to the Upper Alluvial Aquifer is occurring. The hydraulic head within the Alluvial Aquifer is small and no consistent vertical gradient is present.

- Primary groundwater constituents observed above screening levels in Perched Zone groundwater were 1,2-DCA, 1,2-DCB, dinoseb, 4-chloraniline, toluene, and acetone. In the Alluvial Aquifer, the primary constituents observed above screening levels were 1,2-DCA, 1,2-DCB, and 4-chloraniline. All of these constituents appear to be limited to either on-site or proximal off-site areas with the single exception of 1,2-DCA. 1,2-DCA in the Alluvial Aquifer extends at least to the south end of the industrial park,

approximately 2,700 feet downgradient of the Facility boundary. Predominant source areas for Perched Zone and Alluvial Aquifer COCs appear to be former Process Units and waste disposal sites, with some contribution for certain compounds from the storm water ditches and the current wastewater ponds.

- Contrasts in COC concentrations between the Perched Zone and Alluvial Aquifer groundwater suggest that most of the contaminant mass is being retained in the low permeability soils of the Perched Zone.

- Since the termination of Facility operations, the observed declines of both the overall number of COCs and maximum concentrations of COCs within the Alluvial Aquifer groundwater suggest that attenuation may be occurring.

- The Drum Vault was investigated and found to contain drums of unknown product. The drums were visually observed at four locations. Following inspection, the vault was resealed and left in tact. .Some of the drums were observed in poor condition and others were evidently crushed before being placed into the vault. Soils and water within the drum vault are impacted with various COCs.

- No downgradient water supply wells have been identified near the Facility that would be used for drinking water or domestic supply.

9.0 REFERENCES

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Driscoll, F. G., 1986, Groundwater and Wells, Johnson Filtration Systems, St. Paul, MN.

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TABLE 1

Field Screening Results

TABLE 1
FIELD SCREENING RESULTS
CEADAR CHEMICAL CORPORATION
HELENA-WEST HELENA, ARKANSAS

Boring No.	From	To	Interval Sampled	PID Reading
BK-01	0	6	0-6'	NA
	6	10	-	NA
	10	16	6-16'	NA
BK-02	0	6	0-6'	NA
	6	10	-	NA
	10	16	6-16'	NA
BK-03	0	6	0-6'	NA
	6	10	-	NA
	10	16	6-16'	NA
BK-04	0	5	0-5'	NA
	5	10	-	NA
	10	15	10-15'	NA
BK-05	0	5	0-5'	NA
	5	10	-	NA
	10	15	10-15'	NA
BK-06	0	5	0-5'	NA
	5	10	-	NA
	10	15	10-15'	NA
BK-07	0	5	0-5'	NA
	5	10	-	NA
	10	15	10-15'	NA
BK-08	0	5	0-5'	NA
	5	10	-	NA
	10	15	10-15'	NA
BK-09	0	5	0-5'	NA
	5	10	-	NA
	10	15	10-15'	NA
BK-10	0	5	0-5'	NA
	5	10	-	NA
	10	15	10-15'	NA
DPT-00	0	4	0-4'	39.2
	4	8	-	25.7
	8	12	-	29.6
	12	16	12-16'	47.5
	16	20	-	16.2
	20	24	-	15.7
DPT-01	0	2	0-4'	85.0
	2	4		89.0
	4	6	-	48.0
	6	8	-	98.0
	8	10	-	79.0
	10	12	-	155.0
	12	14	12-16'	197.0
	14	16		238.0
DPT-02/TW-1	0	2	0-4'	638.0
	2	4		535.0
	4	6	-	271.0
	6	8	-	298.0
	8	10	-	703.0
	10	12	-	262.0
	12	14	12-16'	OR
	14	16		OR
	16	18	-	OR
	18	20	-	OR
	20	22	-	537.0
	22	24	-	472.0
DPT-03	0	4	0-4'	116.0
	4	8	-	46.0
	8	12	-	54.0
	12	16	-	51.0
	16	20	16-20'	103.0
	20	24	-	113.0

TABLE 1
FIELD SCREENING RESULTS
CEADAR CHEMICAL CORPORATION
HELENA-WEST HELENA, ARKANSAS

Boring No.	From	To	Interval Sampled	PID Reading
DPT-04/TW-2	0	4	0-4'	161.0
	4	8	-	6.0
	8	12	-	1.3
	12	16	-	1.4
	16	20	-	0.7
	20	24	-	0.7
DPT-05	0	4	0-4'	2.1
	4	8	-	0.9
	8	12	-	0.0
	12	16	-	0.0
	16	20	-	0.0
	20	24	-	0.0
DPT-06	0	4	0-4'	1.2
	4	8	-	1.1
	8	12	-	0.9
	12	16	-	0.9
	16	20	-	0.5
	20	24	-	0.5
DPT-07	0	4	0-4'	0.3
	4	8	-	0.2
	8	12	-	0.3
	12	16	12-16'	0.4
	16	20	-	0.2
	20	24	-	0.0
DPT-08	0	4	0-4'	3.0
	4	8	-	1.7
	8	12	-	2.2
	12	16	-	2.3
	16	20	-	2.2
	20	24	-	0.7
DPT-9/TW-3	0	4	0-4'	6.6
	4	8	-	2.0
	8	12	-	4.1
	12	16	12-16'	4.7
	16	20	-	4.7
	20	24	-	8.1
DPT-10	0	4	0-4'	59.7
	4	8	-	29.2
	8	12	-	7.2
	12	16	12-16'	35.0
	16	20	-	15.5
	20	24	-	5.9
DPT-11	0	4	0-4'	87.8
	4	8	-	30.2
	8	12	-	31.5
	12	16	12-16'	71.6
	16	20	-	155.0
	20	24	-	196.0
DPT-12/TW-4	0	4	0-4'	OR
	4	8	-	OR
	8	12	-	OR
	12	16	12-16'	OR
	16	20	-	OR
	20	24	-	OR
DPT-13	0	2	-	1.8
	2	4	2-4'	35.7
	4	6	-	7.6
	6	8	-	8.8
	8	10	-	8.6
DPT-14	0	2	-	0.3
	2	4	2-4'	7.4
	4	6	-	4.2
	6	8	-	8.8
	8	10	8-10	20.3

TABLE 1
FIELD SCREENING RESULTS
CEADAR CHEMICAL CORPORATION
HELENA-WEST HELENA, ARKANSAS

Boring No.	From	To	Interval Sampled	PID Reading
DPT-15	0	2	-	13.3
	2	4	2-4'	90.4
	4	6	4-6'	107.2
	6	8	-	61.4
	8	10	-	27.0
DPT-16	0	2	-	1.2
	2	4	2-4'	8.6
	4	6	-	95.5
	6	8	6-8'	119.3
	8	10	-	88.8
DPT-17/TW-5	0	2	-	10.5
	2	4	2-4'	32.1
	4	6	-	16.8
	6	8	-	18.4
	8	10	-	17.5
	10	12	-	18.1
	12	14	12-14'	24.7
	14	16	-	17.8
	16	18	-	6.4
	18	20	-	20.7
	20	22	-	24.7
	22	24	-	34.2
DPT-18	0	2	-	20.0
	2	4	2-4'	54.9
	4	6	4-6'	138.1
	6	8	-	59.5
	8	10	-	29.5
	10	12	-	24.4
	12	14	-	37.4
	14	16	14-16'	34.2
DPT-19	0	2	-	0.6
	2	4	2-4'	2.4
	4	6	-	3.6
	6	8	-	3.2
	8	10	-	6.0
DP-20	0	2	-	4.9
	2	4	2-4'	10.9
	4	6	-	NR
	6	8	-	NR
	8	10	-	13.4
DPT-21	0	2	-	4.0
	2	4	2-4'	12.7
	4	6	-	8.3
	6	8	-	7.0
	8	10	8-10'	9.8
DPT-22	0	2	-	31.9
	2	4	2-4'	81.9
	4	6	-	44.6
	6	8	-	20.3
	8	10	8-10'	17.2
DPT-23/TW-6	0	2	-	NR
	2	4	2-4'	73.9
	4	6	4-6'	155.5
	6	8	-	42.4
	8	10	-	30.9
	10	12	-	32.2
	12	14	-	16.4
	14	16	14-16'	17.0
	16	18	-	10.9
	18	20	-	7.2
	20	22	-	12.0
	22	24	-	7.8

TABLE 1
FIELD SCREENING RESULTS
CEADAR CHEMICAL CORPORATION
HELENA-WEST HELENA, ARKANSAS

Boring No.	From	To	Interval Sampled	PID Reading
DPT-24	0	2	-	1.0
	2	4	2-4'	3.1
	4	6	-	7.7
	6	8	-	12.7
	8	10	8-10'	15.1
DPT-25	0	2	-	2.5
	2	4	2-4'	8.3
	4	6	-	6.9
	6	8	6-8'	7.6
	8	10	-	6.7
DPT-26	0	2	-	0.2
	2	4	2-4'	9.2
	4	6	4-6'	26.5
	6	8	-	21.6
	8	10	-	18.1
DPT-27	0	2	0-2'	14.8
	2	4	-	8.2
	4	6	-	8.4
	6	8	-	8.0
	8	10	8-10'	9.3
DPT-28	0	2	-	1.1
	2	4	-	18.3
	4	6	-	NR
	6	8	-	7.5
	8	12	8-12'	84.1
	12	16	-	42.3
	16	20	-	55.8
	20	24	-	59.2
DPT-29	0	4	-	1.8
	4	8	4-8'	2.6
	8	12	-	2.1
	12	16	-	0.7
	16	20	-	0.4
DPT-30	0	4	0-4'	126.5
	4	8	-	17.9
	8	12	-	12.4
	12	16	-	5.4
	16	20	-	4.2
DPT-31	0	4	-	4.2
	4	8	-	10.4
	8	12	8-12'	30.9
	12	16	-	28.1
	16	20	-	3.7
DPT-32	0	4	-	0.3
	4	8	-	0.4
	8	12	-	21.9
	12	16	12-16'	104.2
	16	20	-	34.4
DPT-33/TW-7	0	4	-	6.0
	4	8	-	86.1
	8	12	8-12'	157.2
	12	16	-	71.7
	16	20	-	7.2
	20	24	-	1.6
DPT-34	0	4	-	6.1
	4	8	4-8'	1.2
	8	12	-	0.4
	12	16	-	0.3
	16	20	-	0.4
DPT-35/TW-8	0	4	-	4.1
	4	8	-	5.3
	8	12	-	4.7
	12	16	12-16'	8.2
	16	20	-	5.8
	20	24	-	7.2

TABLE 1
FIELD SCREENING RESULTS
CEADAR CHEMICAL CORPORATION
HELENA-WEST HELENA, ARKANSAS

Boring No.	From	To	Interval Sampled	PID Reading
DPT-36/TW-9	0	4	-	0.0
	4	8	4-8'	0.8
	8	12	-	0.0
	12	16	-	0.0
	16	20	-	0.0
	20	24	-	1.2
DPT-37	0	4	-	0.2
	4	8	4-8'	0.0
	8	12	-	0.1
	12	16	-	0.6
	16	20	-	3.4
DPT-38	0	4	-	0.0
	4	8	4-8'	0.0
	8	12	-	0.0
	12	16	-	NR
	16	20	-	0.0
DPT-39/TW-10	0	4	-	0.0
	4	8	4-8'	2.6
	8	12	-	17.8
	12	16	-	52.8
	16	20	-	47.7
	20	24	-	21.5
DPT-40	0	4	0-4'	0.0
	4	8	-	0.0
	8	12	-	0.0
	12	16	-	0.0
	16	20	-	0.0
MW-10	0	7	-	0.0
	7	10	-	0.1
	17	10	-	0.0
MW-11	0	6	-	NA
	6	18	-	NA
MW-12	0	7	-	4.2
	7	10	-	31.3
	17	10	-	47.5
MW-13	0	7	-	1.1
	7	17	-	3.5
	17	27	-	1.8
	27	37	-	3.8
	37	47	-	3.4
	47	57	-	0.1
	57	67	-	0.2
MW-14	0	7	-	92.4
	7	10	-	124.7
	17	10	-	226.5
MW-15	0	7	-	4.0
	7	17	-	61.8
	17	27	-	244.0
	27	37	-	183.0
	37	47	-	8.0
	47	57	-	0.8
	57	67	-	0.8
MW-16	0	7	-	4.2
	7	10	-	31.3
	17	10	-	47.5
MW-17	0	7	-	2.0
	7	17	-	3.6
	17	27	-	19.0
	27	37	-	56.3
	37	47	-	6.1
	47	57	-	0.0
	57	67	-	0.0
	67	70	-	NA

TABLE 1
FIELD SCREENING RESULTS
CEADAR CHEMICAL CORPORATION
HELENA-WEST HELENA, ARKANSAS

Boring No.	From	To	Interval Sampled	PID Reading
MW-18	0	7	-	0.0
	7	10	-	1.9
	17	10	-	10.7
MW-19	0	7	-	0.0
	7	10	-	0.4
	17	10	-	0.4
MW-20	0	7	-	1.5
	7	10	-	0.4
	17	10	-	0.2
MW-21	0	7	-	0.6
	7	10	-	0.2
	17	10	-	0.0
MW-22	0	7	-	0.0
	7	17	-	0.0
	17	27	-	0.0
	27	37	-	0.0
	37	47	-	0.2
	47	57	-	0.0
	57	67	-	0.0
	67	77	-	0.0
	77	87	-	0.4
	87	97	-	0.2
	97	107	-	0.0
	107	117	-	0.0
	117	127	-	0.0
	127	137	-	0.0
	137	147	-	0.0
	147	157	-	0.0
MW-23	0	7	-	0.9
	7	17	-	0.7
	17	27	-	0.4
	27	37	-	0.7
	37	47	-	0.0
	47	57	-	0.0
	57	67	-	0.0
	67	77	-	0.0
	77	87	-	0.0
	87	97	-	0.0
	97	100	-	NA
MW-24	0	7	-	0.4
	7	10	-	0.2
	17	10	-	0.0
MW-25	0	7	-	0.0
	7	17	-	0.0
	17	27	-	0.2
	27	37	-	0.0
	37	47	-	0.0
	47	57	-	0.0
	57	67	-	0.0
	67	77	-	0.0
	77	87	-	0.0
	87	97	-	0.0
	97	107	-	0.0
	107	117	-	0.0
	117	127	-	0.0
	127	137	-	0.0
	137	147	-	0.0

TABLE 1
FIELD SCREENING RESULTS
CEADAR CHEMICAL CORPORATION
HELENA-WEST HELENA, ARKANSAS

Boring No.	From	To	Interval Sampled	PID Reading
MW-26	0	7	-	0.0
	7	17	-	0.0
	17	27	-	0.0
	27	37	-	0.0
	37	47	-	0.0
	47	57	-	0.0
	57	67	-	0.0
	67	77	-	0.0
	77	87	-	0.0
	87	97	-	0.0
	97	107	-	0.0
	107	117	-	0.0
	117	127	-	0.0
	127	137	-	0.0
	137	147	-	0.0
	147	157	-	0.0
	157	167	-	0.0
OFF-MW-5	0	6	-	0.0
	6	16	-	0.0
	16	26	-	0.0
	26	36	-	0.0
	36	46	-	0.0
	46	56	-	0.0
	56	66	-	0.0
	66	76	-	0.0
	76	86	-	0.0
	86	96	-	0.0
	96	106	-	0.0
	106	116	-	0.0
	116	126	-	0.0
	126	136	-	0.0
	136	146	-	0.0
OFF-MW-6	0	5	-	0.0
	5	15	-	0.0
	15	25	-	0.0
	25	35	-	0.0
	35	45	-	0.0
	45	55	-	0.0
	55	65	-	0.0
	65	75	-	0.0
	75	85	-	0.0
	85	95	-	0.0
	95	105	-	0.0
	105	115	-	0.0
	115	125	-	0.0
	125	135	-	0.0
	135	145	-	0.0
OFF-MW-7	0	7	-	0.0
	7	17	-	0.0
	17	27	-	0.0
	27	37	-	0.0
	37	47	-	0.0
	47	57	-	0.0
	57	67	-	0.0
	67	77	-	0.0
	77	87	-	0.0
	87	97	-	0.0
	97	107	-	0.0
	107	117	-	0.0
	117	127	-	0.0
	127	137	-	0.0
	137	147	-	0.0

TABLE 1
FIELD SCREENING RESULTS
CEADAR CHEMICAL CORPORATION
HELENA-WEST HELENA, ARKANSAS

Boring No.	From	To	Interval Sampled	PID Reading
OFF-MW-8	0	7	-	NA
	7	17	-	NA
	17	27	-	NA
	27	37	-	NA
	37	47	-	NA
	47	57	-	NA
	57	67	-	NA
	67	77	-	NA
	77	87	-	NA
	87	97	-	NA
	97	107	-	NA
	107	117	-	NA
	117	127	-	NA
	127	137	-	NA
OFF-MW-9	0	7	-	0.0
	7	10	-	0.0
	17	10	-	0.0
	27	10	-	0.0
	37	10	-	0.0
	47	10	-	0.0
	57	10	-	0.0
	67	10	-	0.0
	77	10	-	0.0
	87	10	-	0.0
	97	10	-	0.0
	107	10	-	0.0
	117	10	-	0.0
	127	10	-	0.0
	137	10	-	0.0
	147	10	-	0.0
OFF-MW-10	0	17	-	0.0
	17	27	-	0.0
	27	37	-	0.0
	37	47	-	0.0
	47	57	-	0.0
	57	67	-	0.0
	67	77	-	0.0
	77	87	-	0.0
	87	97	-	0.0
	97	107	-	0.0
	107	117	-	0.0
	117	127	-	0.0
	127	137	-	0.0
	137	147	-	0.0
OFF-MW-11	0	7	-	0.0
	7	17	-	0.0
	17	27	-	0.0
	27	37	-	0.0
	37	47	-	0.0
	47	57	-	0.1
	57	67	-	0.0
	67	77	-	0.0
	77	87	-	0.0
	87	97	-	0.0
	97	107	-	0.0
	107	127	-	0.0
	127	137	-	0.0
	137	147	-	0.0

NOTES:
1. "OR" indicates over range
2. "NA" indicates not applicable
3. '"-" indicates no sample collected

TABLE 2

DPT Analytical Results

Table 2
DPT Soil Sampling Analytical Results
Spring 2008
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Residential Soil (mg/kg)	Industrial Outdoor Worker Soil (mg/kg)	DAF1 (mg/kg)	BK-1 (0-6) 4/1/2008	BK-1 (10-16) 4/1/2008	BK-10(0-5) 4/1/2008	BK-10(10-15) 4/1/2008	BK-2 (0-6) 4/1/2008	BK-2 (10-16) 4/1/2008	BK-3 (0-6) 4/1/2008	BK-3 (10-16) 4/1/2008	BK-4 (0-5) 4/1/2008	BK-4 (10-15) 4/1/2008	BK-5 (0-5) 4/2/2008	BK-5 (10-15) 4/2/2008	BK-6 (0-5) 4/2/2008	BK-6 (10-15) 4/2/2008
	Metals																			
6020	Aluminum	7429-90-5	MG/KG	76000	100000	NA	12500	11900	12600	13000	17300	12100	14200	12700	9470	9630	9580	12600	7370	15100
6020	Antimony	7440-36-0	MG/KG	31	450	0.3	0.074 JL	0.067 JL	< 0.041 JL	< 0.047 JL	< 0.047 JL	< 0.044 JL	0.084 JL	< 0.043 JL	< 0.045 JL	< 0.048 JL	< 0.043 JL	< 0.042 JL	< 0.042 JL	< 0.047 JL
6020	Arsenic	7440-38-2	MG/KG	0.39	1.8	1	**19.8 JL**	**9.8 JL**	**9.6 JL**	**11.3 JL**	**7.3 JL**	**9.6 JL**	**5.8 JL**	**9.6 JL**	**7.5 JL**	**9.1 JL**	**4.8 JL**	**8.5 JL**	**1.8 JL**	**7.6 JL**
6020	Barium	7440-39-3	MG/KG	16000	100000	82	169	195	182	224	200	186	181	185	130	176	179	186	70.5	203
6020	Beryllium	7440-41-7	MG/KG	150	2200	3	0.54	0.58	0.72	0.72	0.65	0.64	0.55	0.66	0.44	0.54	0.5	0.64	0.3	0.68
6020	Cadmium	7440-43-9	MG/KG	39	560	0.4	0.22	0.36	0.26	0.4	0.12	0.37	0.17	0.42	0.17	0.44	0.16	0.17	< 0.046	0.22
6020	Calcium	7440-70-2	MG/KG	NA	NA	NA	1930	2660	2760	2510	1640	2780	1210	2830	1960	32600	1570	2720	932	2430
6020	Chromium	7440-47-3	MG/KG	210	500	2	14.3 JH	15.4 JH	15.7 JH	19.2 JH	17.1 JH	15.7 JH	15.6 JH	16.9 JH	12.1 JH	22.7 JH	12.6 JH	20.5 JH	9.1 JH	21 JH
6020	Cobalt	7440-48-4	MG/KG	900	2100	NA	6.9	8.6	7.3	11	8.8	9	9.9	9.5	5.7	9.4	5.4	6.6	3.3	7.8
6020	Copper	7440-50-8	MG/KG	2900	42000	NA	13.8	16.7	10.4	16.3	14.5	15.9	11.4	17.5	12.3	14.8	9.8	12.7	5.1	19.5
6020	Iron	7439-89-6	MG/KG	55000	100000	NA	16700	22400	19500	25600	19600	23300	16300	24800	12200	21400	13200	22000	7760	23500
6020	Lead	7439-92-1	MG/KG	400	800	NA	18.8 JH	12.8 JH	18.4 JH	17.4 JH	14.3 JH	12.4 JH	15.1 JH	13.4 JH	37.3 JH	13 JH	9.9 JH	13 JH	4.7 JH	10.9 JH
6020	Magnesium	7439-95-4	MG/KG	NA	NA	NA	2070	2870	2420	3440	2200	3120	1800	3440	1560	16000	1790	3110	1120	3380
6020	Manganese	7439-96-5	MG/KG	3200	35000	NA	730	863	634	1360	851	715	1060	809	571	851	673	475	197	569
6020	Nickel	7440-02-0	MG/KG	1600	23000	7	17.4 JH	21.6 JH	18.8 JH	29.2 JH	18.8 JH	21.3 JH	15.9 JH	24.8 JH	12.6 JH	23.9 JH	14.7 JH	17.7 JH	9.7 JH	24 JH
6020	Potassium	9/7/7440	MG/KG	NA	NA	NA	1210 JH	1490 JH	1110 JH	1420 JH	1380 JH	1630 JH	1250 JH	1470 JH	921 JH	1070 JH	884 JH	1350 JH	776 JH	1580 JH
6020	Selenium	7782-49-2	MG/KG	390	5700	0.3	0.2	< 0.16	0.17	< 0.16	0.28	0.23	0.21	0.18	0.15	0.22	0.15	< 0.14	< 0.14	< 0.16
6020	Silver	7440-22-4	MG/KG	390	5700	2	0.026	< 0.025	0.041	< 0.025	< 0.025	< 0.023	0.051	< 0.023	0.026	< 0.025	0.064	< 0.022	< 0.022	< 0.025
6020	Sodium	7440-23-5	MG/KG	NA	NA	NA	< 9	< 9.1	< 7.8	29 J	< 8.9	24.3 J	< 8.4	44.8 J	< 8.6	40.1 J	< 8.1	24.9 J	< 7.9	14.1 J
6020	Thallium	7440-28-0	MG/KG	5.5	80	0.4	0.3	0.38	0.29	0.39	0.32	0.36	0.31	0.35	0.2	0.31	0.23	0.27	0.11	0.34
6020	Vanadium	7440-62-2	MG/KG	390	5700	300	23.1 JH	22 JH	20.9 JH	22.7 JH	26 JH	24.1 JH	20.1 JH	23.6 JH	18.7 JH	20.2 JH	15.6 JH	23.7 JH	12.9 JH	25.3 JH
6020	Zinc	7440-66-6	MG/KG	23000	100000	620	60.8	68.5	56.2	73.4	56.1	73.1	46.6	72.1	42.6	60.7	43.7	58.5	21.1	68.2
7471A	Mercury	7439-97-6	MG/KG	NA	NA	0.1	0.027 J	0.034 J	0.023 J	0.046 J	0.019 J	0.045 J	0.021 J	0.036 J	0.022 J	0.021 J	0.023 J	0.023 J	0.0061 J	0.037 J
	Organochlorine Pesticides																			
8081A	4,4'-DDD	72-54-8	MG/KG	2.4	11	0.8	< 0.00071	< 0.00071	0.0049	0.008	< 0.00069	< 0.00071	< 0.00069	< 0.00071	< 0.0033	< 0.00072	0.0063	< 0.00069	< 0.00064	< 0.00073
8081A	4,4'-DDE	72-55-9	MG/KG	1.7	7.8	3	0.01	< 0.00031	0.01	0.0093	0.0026	< 0.00031	< 0.0003	< 0.00031	0.048	< 0.00031	0.013	< 0.0003	0.0038	< 0.00032
8081A	4,4'-DDT	50-29-3	MG/KG	1.7	7.8	2	0.008	< 0.00076	0.0096	0.00092 J	0.002 J	< 0.00077	< 0.00075	< 0.00077	0.022	< 0.00078	0.0081	< 0.00075	0.0029	< 0.00079
8081A	Aldrin	309-00-2	MG/KG	0.029	0.11	0.02	< 0.00033	< 0.00033	< 0.00029	< 0.00034	< 0.00032	< 0.00033	< 0.00032	< 0.00033	< 0.0015	< 0.00033	< 0.00031	< 0.00032	< 0.00029	< 0.00033
8081A	alpha-BHC	319-84-6	MG/KG	0.09	0.4	0.00003	< 0.00028	< 0.00028	< 0.00025	< 0.00029	< 0.00027	< 0.00028	< 0.00027	< 0.00028	< 0.0013	< 0.00028	< 0.00027	< 0.00027	< 0.00025	< 0.00028
8081A	alpha-Chlordane	5103-71-9	MG/KG	NA	NA	NA	< 0.00042	< 0.00042	< 0.00038	< 0.00044	< 0.00041	< 0.00042	< 0.00041	< 0.00042	< 0.002	< 0.00043	< 0.0004	< 0.00041	< 0.00038	< 0.00043
8081A	beta-BHC	319-85-7	MG/KG	0.32	1.4	0.0001	< 0.00037	< 0.00037	< 0.00033	< 0.00039	< 0.00036	< 0.00037	< 0.00036	< 0.00037	< 0.0017	< 0.00038	< 0.00035	< 0.00036	< 0.00033	< 0.00038
8081A	Chlordane (technical)	57-74-9	MG/KG	1.6	7.2	0.5	< 0.01	< 0.01	< 0.0091	< 0.011	< 0.0098	< 0.01	< 0.0099	< 0.01	< 0.047	< 0.01	< 0.0097	< 0.0099	< 0.0091	< 0.01
8081A	delta-BHC	319-86-8	MG/KG	NA	NA	NA	< 0.00022	< 0.00022	< 0.00019	< 0.00023	< 0.00021	< 0.00022	< 0.00021	< 0.00022	< 0.001	< 0.00022	< 0.00021	< 0.00021	< 0.00019	< 0.00022
8081A	Dieldrin	60-57-1	MG/KG	0.03	0.12	0.0002	0.00047 J	< 0.00027	< 0.00024	< 0.00028	< 0.00026	< 0.00027	< 0.00027	< 0.00027	< 0.0013	< 0.00028	< 0.00026	< 0.00027	< 0.00025	< 0.00028
8081A	Endosulfan I	959-98-8	MG/KG	NA	NA	NA	< 0.00023	< 0.00023	< 0.00021	< 0.00024	< 0.00022	< 0.00023	< 0.00022	< 0.00023	< 0.0011	< 0.00023	< 0.00022	< 0.00022	< 0.00021	< 0.00023
8081A	Endosulfan II	33213-65-9	MG/KG	NA	NA	NA	< 0.00038	< 0.00037	< 0.00033	< 0.00039	< 0.00036	< 0.00037	< 0.00036	< 0.00037	< 0.0017	< 0.00038	< 0.00036	< 0.00036	< 0.00034	< 0.00038
8081A	Endosulfan sulfate	1031-07-8	MG/KG	NA	NA	NA	< 0.00036	< 0.00036	< 0.00032	< 0.00037	< 0.00035	< 0.00036	< 0.00035	< 0.00036	< 0.0017	< 0.00036	< 0.00034	< 0.00035	< 0.00032	< 0.00037
8081A	Endrin	72-20-8	MG/KG	18	210	0.05	< 0.0004	< 0.0004	< 0.00036	< 0.00042	< 0.00039	< 0.0004	< 0.00039	< 0.0004	< 0.0019	< 0.0004	< 0.00038	< 0.00039	< 0.00036	< 0.00041
8081A	Endrin aldehyde	7421-93-4	MG/KG	NA	NA	NA	< 0.00028	< 0.00028	< 0.00025	< 0.00029	< 0.00027	< 0.00028	< 0.00027	< 0.00028	< 0.0013	< 0.00028	< 0.00026	< 0.00027	< 0.00025	< 0.00028
8081A	Endrin ketone	53494-70-5	MG/KG	NA	NA	NA	< 0.00028	< 0.00028	< 0.00025	< 0.00029	< 0.00027	< 0.00028	< 0.00027	< 0.00028	< 0.0013	< 0.00028	< 0.00026	< 0.00027	< 0.00025	< 0.00028
8081A	gamma-BHC (Lindane)	58-89-9	MG/KG	0.44	1.9	0.0005	< 0.00019	< 0.00019	< 0.00017	< 0.00019	< 0.00018	< 0.00019	< 0.00018	< 0.00019	< 0.00087	< 0.00019	< 0.00018	< 0.00018	< 0.00017	< 0.00019
8081A	gamma-Chlordane	5103-74-2	MG/KG	NA	NA	NA	< 0.00035	< 0.00034	< 0.00031	< 0.00036	< 0.00034	< 0.00035	< 0.00034	< 0.00035	< 0.0016	< 0.00035	< 0.00033	< 0.00034	< 0.00031	< 0.00035
8081A	Heptachlor	76-44-8	MG/KG	0.11	0.43	1	< 0.00028	< 0.00028	< 0.00025	< 0.00029	< 0.00027	< 0.00028	< 0.00027	< 0.00028	< 0.0013	< 0.00028	< 0.00027	< 0.00027	< 0.00025	< 0.00028
8081A	Heptachlor epoxide	1024-57-3	MG/KG	0.053	0.21	0.03	< 0.00056	< 0.00055	< 0.0005	< 0.00058	< 0.00054	< 0.00055	< 0.00054	< 0.00055	< 0.0026	< 0.00056	< 0.00053	< 0.00054	< 0.0005	< 0.00057
8081A	Methoxychlor	72-43-5	MG/KG	310	3400	8	0.0008 J	< 0.00058	< 0.00052	< 0.00061	< 0.00057	< 0.00059	< 0.00057	< 0.00059	< 0.0027	< 0.00059	< 0.00056	< 0.00057	< 0.00053	< 0.0006
8081A	Toxaphene	8001-35-2	MG/KG	0.44	1.7	2	< 0.021	< 0.02	< 0.018	< 0.021	< 0.02	< 0.021	< 0.02	< 0.021	< 0.096	< 0.021	< 0.02	< 0.02	< 0.019	< 0.021
	Herbicides																			
8151A	Dinoseb	88-85-7	MG/KG	61	680	NA	0.016 UB	0.016 UB	0.014 UB	< 0.0026	< 0.0024	0.016 UB	0.015 UB	0.016 UB	0.015 UB	0.016 UB	< 0.0023	< 0.0024	< 0.0022	< 0.0025
	Volatile Organic Compounds (VOCs)																			
8260B	1,1,1-Trichloroethane	71-55-6	MG/KG	1400	1400	0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	1,1,2,2-Tetrachloroethane	79-34-5	MG/KG	0.38	0.97	0.0002	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	1,1,2-Trichloroethane	79-00-5	MG/KG	0.84	2.1	0.0009	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	1,1-Dichloroethane	75-34-3	MG/KG	850	2300	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	1,1-Dichloroethene	75-35-4	MG/KG	280	470	0.003	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	1,2-Dibromoethane (EDB)	106-93-4	MG/KG	0.028	0.07	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 2
DPT Soil Sampling Analytical Results
Spring 2008
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Residential Soil (mg/kg)	Industrial Outdoor Worker Soil (mg/kg)	DAF1 (mg/kg)	BK-1 (0-6) 4/1/2008	BK-1 (10-16) 4/1/2008	BK-10(0-5) 4/1/2008	BK-10(10-15) 4/1/2008	BK-2 (0-6) 4/1/2008	BK-2 (10-16) 4/1/2008	BK-3 (0-6) 4/1/2008	BK-3 (10-16) 4/1/2008	BK-4 (0-5) 4/1/2008	BK-4 (10-15) 4/1/2008	BK-5 (0-5) 4/2/2008	BK-5 (10-15) 4/2/2008	BK-6 (0-5) 4/2/2008	BK-6 (10-15) 4/2/2008
8260B	1,2-Dichlorobenzene	95-50-1	MG/KG	280	370	0.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	1,2-Dichloroethane	107-06-2	MG/KG	0.35	0.84	0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	1,2-Dichloroethene (total)	540-59-0	MG/KG	NA	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	1,2-Dichloropropane	78-87-5	MG/KG	0.35	0.85	0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	1,3-Dichlorobenzene	541-73-1	MG/KG	69	140	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	1,4-Dichlorobenzene	106-46-7	MG/KG	3.2	8.1	0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	2-Butanone (MEK)	78-93-3	MG/KG	32000	34000	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	2-Chloroethyl vinyl ether	110-75-8	MG/KG	NA	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	2-Hexanone	591-78-6	MG/KG	NA	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	4-Methyl-2-pentanone (MIBK)	108-10-1	MG/KG	5800	17000	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	Acetone	67-64-1	MG/KG	14000	60000	0.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	Benzene	71-43-2	MG/KG	0.66	1.6	0.002	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	Bromobenzene	108-86-1	MG/KG	73	120	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	Bromochloromethane	74-97-5	MG/KG	NA	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	Bromodichloromethane	75-27-4	MG/KG	1	2.6	0.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	Bromoform	75-25-2	MG/KG	62	240	0.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	Bromomethane	74-83-9	MG/KG	3.9	15	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	Carbon disulfide	75-15-0	MG/KG	720	720	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	Carbon tetrachloride	56-23-5	MG/KG	0.24	0.58	0.003	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	Chlorobenzene	108-90-7	MG/KG	270	500	0.07	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	Chloroethane	75-00-3	MG/KG	3	7.2	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	Chloroform	67-66-3	MG/KG	0.25	0.58	0.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	Chloromethane	74-87-3	MG/KG	1.3	3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	cis-1,2-Dichloroethene	156-59-2	MG/KG	43	160	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	cis-1,3-Dichloropropene	10061-01-5	MG/KG	0.7	1.8	0.0002	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	Dibromochloromethane	124-48-1	MG/KG	1	2.6	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	Dibromomethane	74-95-3	MG/KG	140	590	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	Ethylbenzene	100-41-4	MG/KG	230	230	0.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	Methylene chloride	75-09-2	MG/KG	8.9	22	0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	m-Xylene & p-Xylene	136777-61-2	MG/KG	NA	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	o-Xylene	95-47-6	MG/KG	280	280	9	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	Styrene	100-42-5	MG/KG	1700	1700	0.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	Tetrachloroethene	127-18-4	MG/KG	0.55	1.7	0.003	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	Toluene	108-88-3	MG/KG	520	520	0.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	trans-1,2-Dichloroethene	156-60-5	MG/KG	120	200	0.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	trans-1,3-Dichloropropene	10061-02-6	MG/KG	0.7	1.8	0.0002	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	Trichloroethene	79-01-6	MG/KG	0.043	0.1	0.003	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	Trichlorofluoromethane	75-69-4	MG/KG	390	1400	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	Vinyl acetate	108-05-4	MG/KG	430	1600	8	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	Vinyl chloride	75-01-4	MG/KG	0.043	0.86	0.0007	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8260B	Xylenes (total)	1330-20-7	MG/KG	210	210	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Semivolatile Organic Compounds (SVOCs)																			
8270C	1,2,4-Trichlorobenzene	120-82-1	MG/KG	140	260	0.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	1,2-Dichlorobenzene	95-50-1	MG/KG	280	370	0.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	1,3-Dichlorobenzene	541-73-1	MG/KG	69	140	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	1,4-Dichlorobenzene	106-46-7	MG/KG	3.2	8.1	0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	2,4,5-Trichlorophenol	95-95-4	MG/KG	6100	68000	14	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	2,4,6-Trichlorophenol	88-06-2	MG/KG	44	170	0.008	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	2,4-Dichlorophenol	120-83-2	MG/KG	180	2100	0.05	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	2,4-Dimethylphenol	105-67-9	MG/KG	1200	14000	0.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	2,4-Dinitrophenol	51-28-5	MG/KG	120	1400	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	2,4-Dinitrotoluene	121-14-2	MG/KG	120	1400	0.00004	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	2,6-Dinitrotoluene	606-20-2	MG/KG	61	680	0.00003	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	2-Chloronaphthalene	91-58-7	MG/KG	3900	26000	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	2-Chlorophenol	95-57-8	MG/KG	64	260	0.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	2-Methylnaphthalene	91-57-6	MG/KG	NA	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--

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Analytical Method	Analyte	CASRN	Units	Residential Soil (mg/kg)	Industrial Outdoor Worker Soil (mg/kg)	DAF1 (mg/kg)	BK-1 (0-6) 4/1/2008	BK-1 (10-16) 4/1/2008	BK-10(0-5) 4/1/2008	BK-10(10-15) 4/1/2008	BK-2 (0-6) 4/1/2008	BK-2 (10-16) 4/1/2008	BK-3 (0-6) 4/1/2008	BK-3 (10-16) 4/1/2008	BK-4 (0-5) 4/1/2008	BK-4 (10-15) 4/1/2008	BK-5 (0-5) 4/2/2008	BK-5 (10-15) 4/2/2008	BK-6 (0-5) 4/2/2008	BK-6 (10-15) 4/2/2008
8270C	2-Methylphenol	95-48-7	MG/KG	3100	34000	0.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	2-Nitroaniline	88-74-4	MG/KG	180	2000	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	2-Nitrophenol	88-75-5	MG/KG	NA	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	3,3'-Dichlorobenzidine	91-94-1	MG/KG	1.1	4.3	0.0003	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	3,4-Dichloroaniline	95-76-1	MG/KG	NA	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	3-Methylphenol & 4-Methylphenol	65794-96-9	MG/KG	310	3400	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	3-Nitroaniline	99-09-2	MG/KG	NA	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	4,6-Dinitro-2-methylphenol	534-52-1	MG/KG	NA	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	4-Bromophenyl phenyl ether	101-55-3	MG/KG	NA	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	4-Chloro-3-methylphenol	59-50-7	MG/KG	NA	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	4-Chloroaniline	106-47-8	MG/KG	240	2700	0.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	4-Chlorophenyl phenyl ether	7005-72-3	MG/KG	NA	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	4-Nitroaniline	100-01-6	MG/KG	NA	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	4-Nitrophenol	100-02-7	MG/KG	490	5500	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	Acenaphthene	83-32-9	MG/KG	3700	33000	29	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	Acenaphthylene	208-96-8	MG/KG	NA	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	Aniline	62-53-3	MG/KG	85	340	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	Anthracene	120-12-7	MG/KG	22000	100000	590	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	Benzo(a)anthracene	56-55-3	MG/KG	0.15	2.3	0.08	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	Benzo(a)pyrene	50-32-8	MG/KG	0.015	0.23	0.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	Benzo(b)fluoranthene	205-99-2	MG/KG	0.15	2.3	0.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	Benzo(ghi)perylene	191-24-2	MG/KG	NA	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	Benzo(k)fluoranthene	207-08-9	MG/KG	1.5	23	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	Benzoic acid	65-85-0	MG/KG	100000	100000	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	Benzyl alcohol	100-51-6	MG/KG	18000	100000	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	bis(2-Chloroethoxy)methane	111-91-1	MG/KG	NA	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	bis(2-Chloroethyl) ether	111-44-4	MG/KG	0.21	0.62	0.00002	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	bis(2-Chloroisopropyl) ether	108-60-1	MG/KG	2.9	8.2	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	bis(2-Ethylhexyl) phthalate	117-81-7	MG/KG	35	140	180	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	Butyl benzyl phthalate	85-68-7	MG/KG	240	240	810	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	Chrysene	218-01-9	MG/KG	15	230	8	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	Dibenz(a,h)anthracene	53-70-3	MG/KG	0.015	0.23	0.08	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	Dibenzofuran	132-64-9	MG/KG	150	1700	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	Diethyl phthalate	84-66-2	MG/KG	49000	100000	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	Dimethyl phthalate	131-11-3	MG/KG	100000	100000	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	Di-n-butyl phthalate	84-74-2	MG/KG	6100	68000	270	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	Di-n-octyl phthalate	117-84-0	MG/KG	NA	NA	10000	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	Dinoseb	88-85-7	MG/KG	61	680	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	Fluoranthene	206-44-0	MG/KG	2300	24000	210	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	Fluorene	86-73-7	MG/KG	2600	26000	28	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	Hexachlorobenzene	118-74-1	MG/KG	0.3	1.2	0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	Hexachlorobutadiene	87-68-3	MG/KG	6.2	25	0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	Hexachlorocyclopentadiene	77-47-4	MG/KG	370	4100	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	Hexachloroethane	67-72-1	MG/KG	35	140	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	Indeno(1,2,3-cd)pyrene	193-39-5	MG/KG	0.15	2.3	0.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	Isophorone	78-59-1	MG/KG	510	2000	0.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	Naphthalene	91-20-3	MG/KG	120	210	4	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	Nitrobenzene	98-95-3	MG/KG	20	110	0.007	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	N-Nitrosodi-n-propylamine	621-64-7	MG/KG	0.07	0.27	0.000002	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	N-Nitrosodiphenylamine	86-30-6	MG/KG	99	390	0.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	Pentachlorophenol	87-86-5	MG/KG	3	10	0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	Phenanthrene	85-01-8	MG/KG	NA	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	Phenol	108-95-2	MG/KG	18000	100000	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	Propanil	709-98-8	MG/KG	310	3400	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8270C	Pyrene	129-00-0	MG/KG	2300	32000	210	--	--	--	--	--	--	--	--	--	--	--	--	--	--

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Analytical Method	Analyte	CASRN	Units	Residential Soil (mg/kg)	Industrial Outdoor Worker Soil (mg/kg)	DAF1 (mg/kg)	BK-7 (0-5) 4/2/2008	BK-7 (10-15) 4/2/2008	BK-8 (0-5) 4/1/2008	BK-8 (10-15) 4/1/2008	BK-9 (0-5) 4/1/2008	BK-9 (10-15) 4/1/2008	DPT-0 (0-4') 3/27/2008	DPT-0 (12-16') 3/27/2008	DPT-1 (0-4') 3/26/2008	DPT-1 (12-16') 3/26/2008	DPT-10 (0-4') 3/27/2008	DPT-10 (12-16') 3/27/2008	DPT-11 (0-4') 3/27/2008	DPT-11 (12-16') 3/27/2008
	Metals																			
6020	Aluminum	7429-90-5	MG/KG	76000	100000	NA	13800	9450	13500	10900	13500	8800	12200	7470	13400	11200	12300	9440	14400	8510
6020	Antimony	7440-36-0	MG/KG	31	450	0.3	< 0.044 JL	< 0.047 JL	< 0.047 JL	< 0.045 JL	< 0.047 JL	< 0.048 JL	0.19 UB	0.31	0.37	0.45	0.25	0.4	0.33	0.3
6020	Arsenic	7440-38-2	MG/KG	0.39	1.8	1	**3.6 JL**	**5.4 JL**	**4.9 JL**	**4.8 JL**	**11.3 JL**	**6.2 JL**	**5.3**	**9.9**	**4.7**	**9.9**	**128**	**14.6**	**6.7**	**6**
6020	Barium	7440-39-3	MG/KG	16000	100000	82	154	169	135	142	159	126	107	81.3	272	216	87.6	147	77.4	138
6020	Beryllium	7440-41-7	MG/KG	150	2200	3	0.52	0.45	0.5	0.55	0.63	0.47	0.49	0.43	0.56	0.59	0.46	0.48	0.51	0.39
6020	Cadmium	7440-43-9	MG/KG	39	560	0.4	0.089	0.31	0.12	0.27	0.17	0.24	0.082	0.3	0.3	0.12	0.093	0.21	0.08	0.27
6020	Calcium	7440-70-2	MG/KG	NA	NA	NA	1380	2480	1840	2820	2350	2880	13200	2490	4390	2170	1810	2930	1350	2360
6020	Chromium	7440-47-3	MG/KG	210	500	2	14.8 JH	14 JH	13.8 JH	17.4 JH	17.7 JH	15.1 JH	19.3 JH	14.4 JH	14.1 JH	13.6 JH	20.8 JH	14.4 JH	14.9 JH	12.3 JH
6020	Cobalt	7440-48-4	MG/KG	900	2100	NA	3.7	7.9	8	9	11.8	6.2	10.3	9.8	12.1	4.9	7.5	8.3	8.3	7.4
6020	Copper	7440-50-8	MG/KG	2900	42000	NA	9.9	13.5	13.8	17	8.1	10.9	15.2	14.9	12.4	11.4	11.4	14.9	13.2	12.2
6020	Iron	7439-89-6	MG/KG	55000	100000	NA	13200	17200	14800	20200	19600	17500	16900	18200	15800	19700	18200	23400	18900	17000
6020	Lead	7439-92-1	MG/KG	400	800	NA	7.8 JH	9.2 JH	11.4 JH	11.8 JH	16.8 JH	8.1 JH	8.5	10.4	14.2	12.2	10	11.2	11.2	9.4
6020	Magnesium	7439-95-4	MG/KG	NA	NA	NA	1650	2410	1640	3100	1620	2530	1820	2120	1580	2550	1840	2670	2080	2220
6020	Manganese	7439-96-5	MG/KG	3200	35000	NA	277	729	964	626	1300	532	519	594	2690	299	587	559	624	985
6020	Nickel	7440-02-0	MG/KG	1600	23000	7	14.2 JH	19.7 JH	15.7 JH	21.7 JH	14.9 JH	18 JH	21.5	19.8	17.9	16.5	16.4	17.5	17.9	17.4
6020	Potassium	9/7/7440	MG/KG	NA	NA	NA	1120 JH	1140 JH	952 JH	1330 JH	983 JH	993 JH	1020 JH	921 JH	1100 JH	1230 JH	1070 JH	1140 JH	1020 JH	972 JH
6020	Selenium	7782-49-2	MG/KG	390	5700	0.3	0.21	< 0.16	0.27	0.29	0.4	< 0.16	0.15	< 0.13	< 0.15	< 0.14	0.2	< 0.15	< 0.15	< 0.15
6020	Silver	7440-22-4	MG/KG	390	5700	2	0.029	< 0.025	< 0.025	< 0.023	< 0.025	< 0.025	3.3	0.12	0.33	0.12	< 0.02	0.027	< 0.023	< 0.023
6020	Sodium	7440-23-5	MG/KG	NA	NA	NA	< 8.3	10.4 J	< 8.9	35 J	< 8.9	15.1 J	115	100 J	763	1960	79.7 J	59.7 J	63.1 J	46.6 J
6020	Thallium	7440-28-0	MG/KG	5.5	80	0.4	0.21	0.25	0.25	0.32	0.24	0.23	0.2	0.27	0.31	0.35	0.23	0.29	0.25	0.25
6020	Vanadium	7440-62-2	MG/KG	390	5700	300	22 JH	22.9 JH	22.3 JH	24.4 JH	16.8 JH	17.8 JH	26	28.3	26.5	30.4	28.4	30.2	29.4	25.4
6020	Zinc	7440-66-6	MG/KG	23000	100000	620	34.9	48.2	41.6	61.4	52.7	46	43.9	43.7	50.4	63.9	42.2	59.1	45.2	47.5
7471A	Mercury	7439-97-6	MG/KG	NA	NA	0.1	0.014 J	0.018 J	0.016 J	0.022 J	0.016 J	0.02 J	0.021 J	0.025 J	0.016 J	0.027 J	0.011 J	0.026 J	0.02 J	0.026 J
	Organochlorine Pesticides																			
8081A	4,4'-DDD	72-54-8	MG/KG	2.4	11	0.8	0.0011 J	< 0.028 J	< 0.00069	< 0.00074	< 0.0034 J	< 0.0007	< 0.033 J	< 0.036 J	< 0.034 J	< 0.037 J	< 0.037 J	< 0.035 J	0.15 J	< 0.036 J
8081A	4,4'-DDE	72-55-9	MG/KG	1.7	7.8	3	0.033	< 0.012 J	0.0012 J	< 0.00032	0.0088 J	< 0.0003	< 0.014 J	< 0.016 J	0.03 J	< 0.016 J	< 0.016 J	< 0.015 J	0.083 J	< 0.016 J
8081A	4,4'-DDT	50-29-3	MG/KG	1.7	7.8	2	0.014	< 0.031 J	0.0012 J	< 0.0008	< 0.0037 J	< 0.00075	< 0.035 J	< 0.039 J	< 0.037 J	< 0.04 J	0.071 J	< 0.038 J	< 0.037 J	< 0.039 J
8081A	Aldrin	309-00-2	MG/KG	0.029	0.11	0.02	< 0.00031	< 0.013 J	< 0.00032	< 0.00034	< 0.0016 J	< 0.00032	< 0.015 J	< 0.016 J	< 0.016 J	< 0.017 J	< 0.017 J	< 0.016 J	< 0.016 J	< 0.017 J
8081A	alpha-BHC	319-84-6	MG/KG	0.09	0.4	0.00003	< 0.00027	< 0.011 J	< 0.00027	< 0.00029	< 0.0013 J	< 0.00027	< 0.013 J	< 0.014 J	< 0.013 J	< 0.014 J	< 0.014 J	< 0.014 J	< 0.013 J	< 0.014 J
8081A	alpha-Chlordane	5103-71-9	MG/KG	NA	NA	NA	< 0.0004	< 0.017 J	< 0.00041	< 0.00044	< 0.002 J	< 0.00041	< 0.019 J	< 0.021 J	< 0.02 J	< 0.022 J	< 0.022 J	< 0.021 J	< 0.02 J	< 0.021 J
8081A	beta-BHC	319-85-7	MG/KG	0.32	1.4	0.0001	< 0.00035	< 0.015 J	< 0.00036	< 0.00039	< 0.0018 J	< 0.00036	< 0.017 J	< 0.019 J	< 0.018 J	< 0.019 J	< 0.019 J	< 0.018 J	< 0.018 J	< 0.019 J
8081A	Chlordane (technical)	57-74-9	MG/KG	1.6	7.2	0.5	< 0.0097	< 0.41 J	< 0.0098	< 0.011	< 0.048 J	< 0.0099	< 0.47 J	< 0.51 J	< 0.48 J	< 0.52 J	< 0.53 J	< 0.5 J	< 0.49 J	< 0.51 J
8081A	delta-BHC	319-86-8	MG/KG	NA	NA	NA	< 0.00021	< 0.0087 J	< 0.00021	< 0.00023	< 0.001 J	< 0.00021	< 0.0099 J	< 0.011 J	< 0.01 J	< 0.011 J	< 0.011 J	< 0.011 J	< 0.01 J	< 0.011 J
8081A	Dieldrin	60-57-1	MG/KG	0.03	0.12	0.0002	< 0.00026	< 0.011 J	0.0044	< 0.00029	**0.098 J**	< 0.00027	< 0.013 J	< 0.014 J	< 0.013 J	< 0.014 J	< 0.014 J	< 0.013 J	< 0.013 J	< 0.014 J
8081A	Endosulfan I	959-98-8	MG/KG	NA	NA	NA	< 0.00022	< 0.0092 J	< 0.00022	< 0.00024	< 0.0011 J	< 0.00022	< 0.011 J	< 0.011 J	< 0.011 J	< 0.012 J	< 0.012 J	< 0.011 J	< 0.011 J	< 0.012 J
8081A	Endosulfan II	33213-65-9	MG/KG	NA	NA	NA	< 0.00036	< 0.015 J	< 0.00036	< 0.00039	< 0.0018 J	< 0.00037	< 0.017 J	< 0.019 J	< 0.018 J	< 0.019 J	< 0.019 J	< 0.018 J	< 0.018 J	< 0.019 J
8081A	Endosulfan sulfate	1031-07-8	MG/KG	NA	NA	NA	< 0.00034	< 0.014 J	< 0.00035	< 0.00038	< 0.0017 J	< 0.00035	< 0.017 J	< 0.018 J	< 0.017 J	< 0.019 J	< 0.019 J	< 0.018 J	< 0.017 J	< 0.018 J
8081A	Endrin	72-20-8	MG/KG	18	210	0.05	< 0.00038	< 0.016 J	< 0.00038	< 0.00042	< 0.0019 J	< 0.00039	< 0.018 J	< 0.02 J	< 0.019 J	< 0.021 J	< 0.021 J	< 0.02 J	< 0.019 J	< 0.02 J
8081A	Endrin aldehyde	7421-93-4	MG/KG	NA	NA	NA	< 0.00026	< 0.011 J	< 0.00027	< 0.00029	< 0.0013 J	< 0.00027	< 0.013 J	< 0.014 J	< 0.013 J	< 0.014 J	< 0.014 J	< 0.014 J	< 0.013 J	< 0.014 J
8081A	Endrin ketone	53494-70-5	MG/KG	NA	NA	NA	< 0.00026	< 0.011 J	< 0.00027	< 0.00029	< 0.0013 J	< 0.00027	< 0.013 J	< 0.014 J	< 0.013 J	< 0.014 J	< 0.014 J	< 0.014 J	< 0.013 J	< 0.014 J
8081A	gamma-BHC (Lindane)	58-89-9	MG/KG	0.44	1.9	0.0005	< 0.00018	< 0.0075 J	< 0.00018	< 0.00019	< 0.00089 J	< 0.00018	< 0.0086 J	< 0.0093 J	< 0.0089 J	< 0.0096 J	< 0.0097 J	< 0.0092 J	< 0.0089 J	< 0.0094 J
8081A	gamma-Chlordane	5103-74-2	MG/KG	NA	NA	NA	< 0.00033	< 0.014 J	< 0.00033	< 0.00036	< 0.0017 J	< 0.00034	< 0.016 J	< 0.017 J	< 0.017 J	< 0.018 J	< 0.018 J	< 0.017 J	< 0.017 J	< 0.018 J
8081A	Heptachlor	76-44-8	MG/KG	0.11	0.43	1	< 0.00027	< 0.011 J	< 0.00027	< 0.00029	< 0.0013 J	< 0.00027	< 0.013 J	< 0.014 J	< 0.013 J	< 0.014 J	< 0.014 J	< 0.014 J	< 0.013 J	< 0.014 J
8081A	Heptachlor epoxide	1024-57-3	MG/KG	0.053	0.21	0.03	< 0.00053	< 0.022 J	< 0.00054	< 0.00058	< 0.0026 J	< 0.00054	< 0.025 J	< 0.028 J	< 0.026 J	< 0.029 J	< 0.029 J	< 0.027 J	< 0.027 J	< 0.028 J
8081A	Methoxychlor	72-43-5	MG/KG	310	3400	8	< 0.00056	< 0.023 J	< 0.00057	< 0.00061	< 0.0028 J	< 0.00057	< 0.027 J	< 0.029 J	< 0.028 J	< 0.03 J	< 0.03 J	< 0.029 J	< 0.028 J	< 0.03 J
8081A	Toxaphene	8001-35-2	MG/KG	0.44	1.7	2	< 0.02	< 0.82 J	< 0.02	< 0.022	< 0.098 J	< 0.02	< 0.94 J	< 1 J	< 0.98 J	< 1.1 J	< 1.1 J	< 1 J	< 0.99 J	< 1 J
	Herbicides																			
8151A	Dinoseb	88-85-7	MG/KG	61	680	NA	< 0.0023	< 0.0025	< 0.0024	0.016 UB	< 0.0024	0.015 UB	< 0.0023	< 0.0025	< 0.0024	0.0038 J	4	0.0076 J	4.2	< 0.0025
	Volatile Organic Compounds (VOCs)																			
8260B	1,1,1-Trichloroethane	71-55-6	MG/KG	1400	1400	0.1	--	--	--	--	--	--	< 0.0018	< 0.001	< 0.0044	< 0.67	< 0.005	< 0.0047	< 0.0048	< 0.002
8260B	1,1,2,2-Tetrachloroethane	79-34-5	MG/KG	0.38	0.97	0.0002	--	--	--	--	--	--	< 0.0075	< 0.0041	< 0.018	< 0.93	< 0.021	< 0.019	< 0.02	< 0.0084
8260B	1,1,2-Trichloroethane	79-00-5	MG/KG	0.84	2.1	0.0009	--	--	--	--	--	--	< 0.0012	< 0.00068	< 0.003	< 0.75	< 0.0034	< 0.0032	< 0.0032	< 0.0014
8260B	1,1-Dichloroethane	75-34-3	MG/KG	850	2300	1	--	--	--	--	--	--	< 0.0015	< 0.00081	< 0.0036	< 0.71	< 0.0041	< 0.0038	< 0.0039	< 0.0016
8260B	1,1-Dichloroethene	75-35-4	MG/KG	280	470	0.003	--	--	--	--	--	--	< 0.002	< 0.0011	< 0.005	< 0.74	< 0.0056	< 0.0052	< 0.0053	< 0.0023
8260B	1,2-Dibromoethane (EDB)	106-93-4	MG/KG	0.028	0.07	NA	--	--	--	--	--	--	< 0.0018	< 0.00098	< 0.0044	< 0.82	< 0.0049	< 0.0046	< 0.0047	< 0.002

Table 2
DPT Soil Sampling Analytical Results
Spring 2008
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Residential Soil (mg/kg)	Industrial Outdoor Worker Soil (mg/kg)	DAF1 (mg/kg)	BK-7 (0-5) 4/2/2008	BK-7 (10-15) 4/2/2008	BK-8 (0-5) 4/1/2008	BK-8 (10-15) 4/1/2008	BK-9 (0-5) 4/1/2008	BK-9 (10-15) 4/1/2008	DPT-0 (0-4') 3/27/2008	DPT-0 (12-16') 3/27/2008	DPT-1 (0-4') 3/26/2008	DPT-1 (12-16') 3/26/2008	DPT-10 (0-4') 3/27/2008	DPT-10 (12-16') 3/27/2008	DPT-11 (0-4') 3/27/2008	DPT-11 (12-16') 3/27/2008
8260B	1,2-Dichlorobenzene	95-50-1	MG/KG	280	370	0.9	--	--	--	--	--	--	0.0064 J	0.0056 J	4.8 J	1.5 J	0.073	< 0.01	0.5	< 0.0045
8260B	1,2-Dichloroethane	107-06-2	MG/KG	0.35	0.84	0.001	--	--	--	--	--	--	0.035	0.076	< 0.0044	< 0.8	**0.4**	**1.6**	0.011 J	0.0072 J
8260B	1,2-Dichloroethene (total)	540-59-0	MG/KG	NA	NA	NA	--	--	--	--	--	--	0.0031 J	< 0.0015	< 0.0069	< 1.4	< 0.0078	< 0.0072	< 0.0074	< 0.0031
8260B	1,2-Dichloropropane	78-87-5	MG/KG	0.35	0.85	0.001	--	--	--	--	--	--	< 0.0016	< 0.00088	< 0.0039	< 0.84	< 0.0044	< 0.0041	< 0.0042	< 0.0018
8260B	1,3-Dichlorobenzene	541-73-1	MG/KG	69	140	NA	--	--	--	--	--	--	< 0.002	< 0.0011	< 0.005	< 0.69	< 0.0056	< 0.0052	< 0.0053	< 0.0023
8260B	1,4-Dichlorobenzene	106-46-7	MG/KG	3.2	8.1	0.1	--	--	--	--	--	--	< 0.0027	< 0.0015	0.014 J	< 0.71	< 0.0073	< 0.0068	< 0.007	< 0.003
8260B	2-Butanone (MEK)	78-93-3	MG/KG	32000	34000	NA	--	--	--	--	--	--	0.024	0.003 J	0.041 J	< 1.4 J	0.047 J	< 0.011	0.088	0.029
8260B	2-Chloroethyl vinyl ether	110-75-8	MG/KG	NA	NA	NA	--	--	--	--	--	--	< 0.0013	< 0.00073	< 0.0032	< 0.84	< 0.0037	< 0.0034	< 0.0035	< 0.0015
8260B	2-Hexanone	591-78-6	MG/KG	NA	NA	NA	--	--	--	--	--	--	< 0.007	< 0.0038	< 0.017	< 0.87	< 0.019	< 0.018	< 0.018	< 0.0079
8260B	4-Methyl-2-pentanone (MIBK)	108-10-1	MG/KG	5800	17000	NA	--	--	--	--	--	--	< 0.004	< 0.0022	0.18	1 J	< 0.011	< 0.01	< 0.01	0.032
8260B	Acetone	67-64-1	MG/KG	14000	60000	0.8	--	--	--	--	--	--	0.084 J	0.0069 J	0.35	3.4 J	0.039 J	< 0.011	0.11 J	0.23
8260B	Benzene	71-43-2	MG/KG	0.66	1.6	0.002	--	--	--	--	--	--	< 0.0016	< 0.00087	< 0.0039	< 0.79	< 0.0044	< 0.0041	< 0.0041	< 0.0018
8260B	Bromobenzene	108-86-1	MG/KG	73	120	NA	--	--	--	--	--	--	< 0.0014	< 0.00076	< 0.0034	< 0.75	< 0.0038	< 0.0035	< 0.0036	< 0.0015
8260B	Bromochloromethane	74-97-5	MG/KG	NA	NA	NA	--	--	--	--	--	--	< 0.0019	< 0.001	< 0.0046	< 0.67	< 0.0052	< 0.0048	< 0.0049	< 0.0021
8260B	Bromodichloromethane	75-27-4	MG/KG	1	2.6	0.03	--	--	--	--	--	--	< 0.0015	< 0.0008	< 0.0036	< 0.86	< 0.004	< 0.0038	< 0.0038	< 0.0016
8260B	Bromoform	75-25-2	MG/KG	62	240	0.04	--	--	--	--	--	--	< 0.0026	< 0.0014	< 0.0064	< 1.2	< 0.0073	< 0.0068	< 0.0069	< 0.003
8260B	Bromomethane	74-83-9	MG/KG	3.9	15	0.01	--	--	--	--	--	--	< 0.0015	< 0.00085	< 0.0038	< 0.72	< 0.0043	< 0.004	< 0.0041	< 0.0017
8260B	Carbon disulfide	75-15-0	MG/KG	720	720	2	--	--	--	--	--	--	< 0.0019	< 0.0011	< 0.0048	< 0.68	< 0.0054	< 0.005	< 0.0051	< 0.0022
8260B	Carbon tetrachloride	56-23-5	MG/KG	0.24	0.58	0.003	--	--	--	--	--	--	< 0.0027	< 0.0015	< 0.0066	< 0.73	< 0.0074	< 0.0069	< 0.0071	< 0.003
8260B	Chlorobenzene	108-90-7	MG/KG	270	500	0.07	--	--	--	--	--	--	< 0.0014	< 0.00075	0.0096 J	< 0.71	< 0.0038	< 0.0035	0.0078 J	< 0.0015
8260B	Chloroethane	75-00-3	MG/KG	3	7.2	NA	--	--	--	--	--	--	< 0.0016	< 0.0009	< 0.004	< 0.71	< 0.0045	< 0.0042	< 0.0043	< 0.0018
8260B	Chloroform	67-66-3	MG/KG	0.25	0.58	0.03	--	--	--	--	--	--	< 0.0017	< 0.00094	< 0.0042	< 0.67	< 0.0048	< 0.0044	< 0.0045	< 0.0019
8260B	Chloromethane	74-87-3	MG/KG	1.3	3	NA	--	--	--	--	--	--	< 0.0015	< 0.0008	< 0.0036	< 0.77	< 0.004	< 0.0038	< 0.0038	< 0.0016
8260B	cis-1,2-Dichloroethene	156-59-2	MG/KG	43	160	0.02	--	--	--	--	--	--	0.0031 J	0.0015 J	< 0.0037	< 0.69	0.0043 J	< 0.0038	< 0.0039	< 0.0017
8260B	cis-1,3-Dichloropropene	10061-01-5	MG/KG	0.7	1.8	0.0002	--	--	--	--	--	--	< 0.0014	< 0.00075	< 0.0033	< 0.78	< 0.0038	< 0.0035	< 0.0036	< 0.0015
8260B	Dibromochloromethane	124-48-1	MG/KG	1	2.6	0.02	--	--	--	--	--	--	< 0.0015	< 0.00084	< 0.0038	< 0.72	< 0.0043	< 0.004	< 0.004	< 0.0017
8260B	Dibromomethane	74-95-3	MG/KG	140	590	NA	--	--	--	--	--	--	< 0.0021	< 0.0011	< 0.0051	< 0.82	< 0.0058	< 0.0054	< 0.0055	< 0.0023
8260B	Ethylbenzene	100-41-4	MG/KG	230	230	0.7	--	--	--	--	--	--	< 0.002	< 0.0011	0.035	1.5 J	< 0.0055	< 0.0052	0.0053 J	< 0.0023
8260B	Methylene chloride	75-09-2	MG/KG	8.9	22	0.001	--	--	--	--	--	--	0.0022 J	0.0028 J	< 0.0052	< 0.74	< 0.0059	0.014 J	< 0.0056	0.0045 J
8260B	m-Xylene & p-Xylene	136777-61-2	MG/KG	NA	NA	NA	--	--	--	--	--	--	< 0.0037	< 0.0021	0.19	6.7	< 0.01	< 0.0096	0.033 J	< 0.0042
8260B	o-Xylene	95-47-6	MG/KG	280	280	9	--	--	--	--	--	--	< 0.0013	< 0.00074	0.14	5	< 0.0037	< 0.0035	0.016 J	< 0.0015
8260B	Styrene	100-42-5	MG/KG	1700	1700	0.2	--	--	--	--	--	--	< 0.0013	< 0.00069	< 0.0031	< 0.71	< 0.0035	< 0.0032	< 0.0033	< 0.0014
8260B	Tetrachloroethene	127-18-4	MG/KG	0.55	1.7	0.003	--	--	--	--	--	--	0.28	0.016	< 0.0091	< 0.77	**2.1**	0.15	< 0.0098	< 0.0042
8260B	Toluene	108-88-3	MG/KG	520	520	0.6	--	--	--	--	--	--	0.053	0.0045 J	2 J	37	0.084	0.033	0.85	0.044
8260B	trans-1,2-Dichloroethene	156-60-5	MG/KG	120	200	0.03	--	--	--	--	--	--	< 0.0016	< 0.00089	< 0.004	< 0.68	< 0.0045	< 0.0042	< 0.0043	< 0.0018
8260B	trans-1,3-Dichloropropene	10061-02-6	MG/KG	0.7	1.8	0.0002	--	--	--	--	--	--	< 0.0015	< 0.00082	< 0.0037	< 0.71	< 0.0042	< 0.0039	< 0.0039	< 0.0017
8260B	Trichloroethene	79-01-6	MG/KG	0.043	0.1	0.003	--	--	--	--	--	--	< 0.0022	< 0.0012	< 0.0054	< 0.73	0.0066 J	< 0.0057	< 0.0059	< 0.0025
8260B	Trichlorofluoromethane	75-69-4	MG/KG	390	1400	NA	--	--	--	--	--	--	< 0.0024	< 0.0013	< 0.006 J	< 0.71	< 0.0067	< 0.0063	< 0.0064	< 0.0027
8260B	Vinyl acetate	108-05-4	MG/KG	430	1600	8	--	--	--	--	--	--	< 0.0025	< 0.0014	< 0.0062	< 1.1	< 0.007	< 0.0065	< 0.0066	< 0.0028
8260B	Vinyl chloride	75-01-4	MG/KG	0.043	0.86	0.0007	--	--	--	--	--	--	< 0.0018	< 0.00099	< 0.0044	< 0.74	< 0.005	< 0.0047	< 0.0048	< 0.002
8260B	Xylenes (total)	1330-20-7	MG/KG	210	210	10	--	--	--	--	--	--	< 0.005	< 0.0027	0.33	12	< 0.014	< 0.013	0.049 J	< 0.0056
	Semivolatile Organic Compounds (SVOCs)																			
8270C	1,2,4-Trichlorobenzene	120-82-1	MG/KG	140	260	0.3	--	--	--	--	--	--	< 0.054	< 0.059	< 0.056	< 0.06	< 0.061	< 0.058	< 0.056	< 0.059
8270C	1,2-Dichlorobenzene	95-50-1	MG/KG	280	370	0.9	--	--	--	--	--	--	< 0.047	< 0.052	0.9	0.59	0.32 J	< 0.051	0.12 J	< 0.052
8270C	1,3-Dichlorobenzene	541-73-1	MG/KG	69	140	NA	--	--	--	--	--	--	< 0.041	< 0.045	< 0.043	< 0.046	< 0.046	< 0.044	< 0.043	< 0.045
8270C	1,4-Dichlorobenzene	106-46-7	MG/KG	3.2	8.1	0.1	--	--	--	--	--	--	< 0.036	< 0.039	< 0.037	< 0.04	< 0.04	< 0.038	< 0.037	< 0.039
8270C	2,4,5-Trichlorophenol	95-95-4	MG/KG	6100	68000	14	--	--	--	--	--	--	< 0.041	< 0.045	< 0.043	< 0.046	< 0.046	< 0.044	< 0.043	< 0.045
8270C	2,4,6-Trichlorophenol	88-06-2	MG/KG	44	170	0.008	--	--	--	--	--	--	< 0.053	< 0.057	< 0.055	< 0.059	< 0.059	< 0.056	< 0.055	< 0.058
8270C	2,4-Dichlorophenol	120-83-2	MG/KG	180	2100	0.05	--	--	--	--	--	--	< 0.052	< 0.057	< 0.054	< 0.058	< 0.059	< 0.056	< 0.054	< 0.057
8270C	2,4-Dimethylphenol	105-67-9	MG/KG	1200	14000	0.4	--	--	--	--	--	--	< 0.094	< 0.1	< 0.098	< 0.11	< 0.11	< 0.1	< 0.098	< 0.1
8270C	2,4-Dinitrophenol	51-28-5	MG/KG	120	1400	0.01	--	--	--	--	--	--	< 0.21	< 0.23	< 0.22	< 0.24	< 0.24	< 0.23	< 0.22	< 0.24
8270C	2,4-Dinitrotoluene	121-14-2	MG/KG	120	1400	0.00004	--	--	--	--	--	--	< 0.19	< 0.21	< 0.2	< 0.21	< 0.21	< 0.2	< 0.2	< 0.21
8270C	2,6-Dinitrotoluene	606-20-2	MG/KG	61	680	0.00003	--	--	--	--	--	--	< 0.049	< 0.053	< 0.051	< 0.055	< 0.055	< 0.053	< 0.051	< 0.054
8270C	2-Chloronaphthalene	91-58-7	MG/KG	3900	26000	NA	--	--	--	--	--	--	< 0.037	< 0.041	< 0.039	< 0.042	< 0.042	< 0.04	< 0.039	< 0.041
8270C	2-Chlorophenol	95-57-8	MG/KG	64	260	0.2	--	--	--	--	--	--	< 0.035	< 0.038	< 0.036	< 0.039	< 0.039	< 0.037	< 0.036	< 0.038
8270C	2-Methylnaphthalene	91-57-6	MG/KG	NA	NA	NA	--	--	--	--	--	--	< 0.038	< 0.042	< 0.04	0.078 J	< 0.043	< 0.041	< 0.04	< 0.042

Table 2
DPT Soil Sampling Analytical Results
Spring 2008
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Residential Soil (mg/kg)	Industrial Outdoor Worker Soil (mg/kg)	DAF1 (mg/kg)	BK-7 (0-5) 4/2/2008	BK-7 (10-15) 4/2/2008	BK-8 (0-5) 4/1/2008	BK-8 (10-15) 4/1/2008	BK-9 (0-5) 4/1/2008	BK-9 (10-15) 4/1/2008	DPT-0 (0-4') 3/27/2008	DPT-0 (12-16') 3/27/2008	DPT-1 (0-4') 3/26/2008	DPT-1 (12-16') 3/26/2008	DPT-10 (0-4') 3/27/2008	DPT-10 (12-16') 3/27/2008	DPT-11 (0-4') 3/27/2008	DPT-11 (12-16') 3/27/2008
8270C	2-Methylphenol	95-48-7	MG/KG	3100	34000	0.8	--	--	--	--	--	--	< 0.048	< 0.052	< 0.05	0.11 J	< 0.054	< 0.051	< 0.05	< 0.052
8270C	2-Nitroaniline	88-74-4	MG/KG	180	2000	NA	--	--	--	--	--	--	< 0.051	< 0.055	< 0.053	< 0.057	< 0.057	< 0.055	< 0.053	< 0.056
8270C	2-Nitrophenol	88-75-5	MG/KG	NA	NA	NA	--	--	--	--	--	--	< 0.075	< 0.082	< 0.078	< 0.085	< 0.085	< 0.081	< 0.079	< 0.083
8270C	3,3'-Dichlorobenzidine	91-94-1	MG/KG	1.1	4.3	0.0003	--	--	--	--	--	--	< 0.029	< 0.031	< 0.03	< 0.032	< 0.032	< 0.031	< 0.03	< 0.031
8270C	3,4-Dichloroaniline	95-76-1	MG/KG	NA	NA	NA	--	--	--	--	--	--	0.22 J	0.42 J	22	18	78	0.23 J	38	0.1 J
8270C	3-Methylphenol & 4-Methylphenol	65794-96-9	MG/KG	310	3400	NA	--	--	--	--	--	--	< 0.077	< 0.085	< 0.081	0.14 J	< 0.088	< 0.083	< 0.081	< 0.085
8270C	3-Nitroaniline	99-09-2	MG/KG	NA	NA	NA	--	--	--	--	--	--	< 0.038	< 0.042	< 0.04	< 0.043	< 0.043	< 0.041	< 0.04	< 0.042
8270C	4,6-Dinitro-2-methylphenol	534-52-1	MG/KG	NA	NA	NA	--	--	--	--	--	--	< 0.17	< 0.19	< 0.18	< 0.19	< 0.19	< 0.18	< 0.18	< 0.19
8270C	4-Bromophenyl phenyl ether	101-55-3	MG/KG	NA	NA	NA	--	--	--	--	--	--	< 0.036	< 0.039	< 0.038	< 0.041	< 0.041	< 0.039	< 0.038	< 0.04
8270C	4-Chloro-3-methylphenol	59-50-7	MG/KG	NA	NA	NA	--	--	--	--	--	--	< 0.063	< 0.069	< 0.066	< 0.071	< 0.071	< 0.068	< 0.066	< 0.069
8270C	4-Chloroaniline	106-47-8	MG/KG	240	2700	0.03	--	--	--	--	--	--	< 0.045	< 0.049	< 0.047	< 0.05	< 0.051	< 0.048	0.048 J	0.15 J
8270C	4-Chlorophenyl phenyl ether	7005-72-3	MG/KG	NA	NA	NA	--	--	--	--	--	--	< 0.031	< 0.033	< 0.032	< 0.034	< 0.035	< 0.033	< 0.032	< 0.034
8270C	4-Nitroaniline	100-01-6	MG/KG	NA	NA	NA	--	--	--	--	--	--	< 0.12	< 0.13	< 0.12	< 0.13	< 0.14	< 0.13	< 0.12	< 0.13
8270C	4-Nitrophenol	100-02-7	MG/KG	490	5500	NA	--	--	--	--	--	--	< 0.18	< 0.2	< 0.19	< 0.2	< 0.2	< 0.19	< 0.19	< 0.2
8270C	Acenaphthene	83-32-9	MG/KG	3700	33000	29	--	--	--	--	--	--	< 0.041	< 0.045	< 0.043	< 0.047	< 0.047	< 0.045	< 0.043	< 0.046
8270C	Acenaphthylene	208-96-8	MG/KG	NA	NA	NA	--	--	--	--	--	--	< 0.039	< 0.043	< 0.041	< 0.044	< 0.044	< 0.042	< 0.041	< 0.043
8270C	Aniline	62-53-3	MG/KG	85	340	NA	--	--	--	--	--	--	< 0.038	< 0.041	< 0.039	< 0.042	< 0.043	< 0.041	< 0.039	< 0.042
8270C	Anthracene	120-12-7	MG/KG	22000	100000	590	--	--	--	--	--	--	< 0.029	< 0.032	< 0.031	< 0.033	< 0.033	< 0.032	< 0.031	< 0.032
8270C	Benzo(a)anthracene	56-55-3	MG/KG	0.15	2.3	0.08	--	--	--	--	--	--	< 0.024	< 0.026	< 0.025	< 0.027	< 0.027	< 0.026	< 0.025	< 0.026
8270C	Benzo(a)pyrene	50-32-8	MG/KG	0.015	0.23	0.4	--	--	--	--	--	--	< 0.027	< 0.03	< 0.028	< 0.031	< 0.031	< 0.029	< 0.028	< 0.03
8270C	Benzo(b)fluoranthene	205-99-2	MG/KG	0.15	2.3	0.2	--	--	--	--	--	--	< 0.062	< 0.068	< 0.065	< 0.07	< 0.071	< 0.067	< 0.065	< 0.069
8270C	Benzo(ghi)perylene	191-24-2	MG/KG	NA	NA	NA	--	--	--	--	--	--	< 0.032	< 0.035	< 0.033	< 0.036	< 0.036	< 0.034	< 0.034	< 0.035
8270C	Benzo(k)fluoranthene	207-08-9	MG/KG	1.5	23	2	--	--	--	--	--	--	< 0.048	< 0.052	< 0.049	< 0.053	< 0.054	< 0.051	< 0.05	< 0.052
8270C	Benzoic acid	65-85-0	MG/KG	100000	100000	20	--	--	--	--	--	--	< 0.14	< 0.15	< 0.14	< 0.16	< 0.16	< 0.15	< 0.14	< 0.15
8270C	Benzyl alcohol	100-51-6	MG/KG	18000	100000	NA	--	--	--	--	--	--	< 0.099	< 0.11	< 0.1	< 0.11	< 0.11	< 0.11	< 0.1	< 0.11
8270C	bis(2-Chloroethoxy)methane	111-91-1	MG/KG	NA	NA	NA	--	--	--	--	--	--	< 0.039	< 0.042	< 0.04	< 0.044	< 0.044	< 0.042	< 0.041	< 0.043
8270C	bis(2-Chloroethyl) ether	111-44-4	MG/KG	0.21	0.62	0.00002	--	--	--	--	--	--	< 0.041	< 0.045	< 0.043	< 0.046	< 0.046	< 0.044	< 0.043	< 0.045
8270C	bis(2-Chloroisopropyl) ether	108-60-1	MG/KG	2.9	8.2	NA	--	--	--	--	--	--	< 0.033	< 0.036	< 0.034	< 0.037	< 0.037	< 0.035	< 0.034	< 0.036
8270C	bis(2-Ethylhexyl) phthalate	117-81-7	MG/KG	35	140	180	--	--	--	--	--	--	0.1 J	0.12 J	0.39 J	0.18 J	0.39 J	0.15 J	0.068 J	0.1 J
8270C	Butyl benzyl phthalate	85-68-7	MG/KG	240	240	810	--	--	--	--	--	--	< 0.031	< 0.034	< 0.032	< 0.035	< 0.035	< 0.033	< 0.033	< 0.034
8270C	Chrysene	218-01-9	MG/KG	15	230	8	--	--	--	--	--	--	< 0.027	< 0.03	< 0.028	< 0.03	< 0.031	< 0.029	< 0.028	< 0.03
8270C	Dibenz(a,h)anthracene	53-70-3	MG/KG	0.015	0.23	0.08	--	--	--	--	--	--	< 0.1	< 0.11	< 0.1	< 0.11	< 0.11	< 0.11	< 0.1	< 0.11
8270C	Dibenzofuran	132-64-9	MG/KG	150	1700	NA	--	--	--	--	--	--	< 0.043	< 0.047	< 0.045	< 0.048	< 0.049	< 0.046	< 0.045	< 0.047
8270C	Diethyl phthalate	84-66-2	MG/KG	49000	100000	NA	--	--	--	--	--	--	< 0.026	< 0.028	< 0.027	< 0.029	< 0.029	< 0.028	< 0.027	< 0.028
8270C	Dimethyl phthalate	131-11-3	MG/KG	100000	100000	NA	--	--	--	--	--	--	< 0.028	< 0.031	< 0.03	< 0.032	< 0.032	< 0.031	< 0.03	< 0.031
8270C	Di-n-butyl phthalate	84-74-2	MG/KG	6100	68000	270	--	--	--	--	--	--	< 0.029	< 0.032	< 0.031	< 0.033	< 0.033	< 0.032	< 0.031	< 0.032
8270C	Di-n-octyl phthalate	117-84-0	MG/KG	NA	NA	10000	--	--	--	--	--	--	< 0.14	< 0.16	< 0.15	< 0.16	0.48	< 0.16	< 0.15	< 0.16
8270C	Dinoseb	88-85-7	MG/KG	61	680	NA	--	--	--	--	--	--	< 0.016	0.36 J	< 0.016	< 0.018	**270**	3.1	**250**	< 0.017
8270C	Fluoranthene	206-44-0	MG/KG	2300	24000	210	--	--	--	--	--	--	< 0.029	< 0.032	< 0.03	< 0.033	< 0.033	< 0.031	< 0.03	< 0.032
8270C	Fluorene	86-73-7	MG/KG	2600	26000	28	--	--	--	--	--	--	< 0.028	< 0.03	< 0.029	< 0.031	< 0.031	< 0.03	< 0.029	< 0.03
8270C	Hexachlorobenzene	118-74-1	MG/KG	0.3	1.2	0.1	--	--	--	--	--	--	< 0.034	< 0.037	< 0.035	< 0.038	< 0.038	< 0.036	< 0.035	< 0.037
8270C	Hexachlorobutadiene	87-68-3	MG/KG	6.2	25	0.1	--	--	--	--	--	--	< 0.049	< 0.053	< 0.05	< 0.054	< 0.055	< 0.052	< 0.051	< 0.053
8270C	Hexachlorocyclopentadiene	77-47-4	MG/KG	370	4100	20	--	--	--	--	--	--	< 0.2	< 0.22	< 0.21	< 0.23	< 0.23	< 0.22	< 0.21	< 0.22
8270C	Hexachloroethane	67-72-1	MG/KG	35	140	0.02	--	--	--	--	--	--	< 0.051	< 0.056	< 0.054	< 0.058	< 0.058	< 0.055	< 0.054	< 0.057
8270C	Indeno(1,2,3-cd)pyrene	193-39-5	MG/KG	0.15	2.3	0.7	--	--	--	--	--	--	< 0.062	< 0.067	< 0.064	< 0.069	< 0.07	< 0.066	< 0.064	< 0.068
8270C	Isophorone	78-59-1	MG/KG	510	2000	0.03	--	--	--	--	--	--	< 0.051	< 0.056	10	67	< 0.058	< 0.055	< 0.053	< 0.056
8270C	Naphthalene	91-20-3	MG/KG	120	210	4	--	--	--	--	--	--	< 0.038	< 0.042	0.1 J	0.19 J	< 0.043	< 0.041	< 0.04	< 0.042
8270C	Nitrobenzene	98-95-3	MG/KG	20	110	0.007	--	--	--	--	--	--	< 0.059	< 0.064	< 0.061	< 0.066	< 0.066	< 0.063	< 0.061	< 0.065
8270C	N-Nitrosodi-n-propylamine	621-64-7	MG/KG	0.07	0.27	0.000002	--	--	--	--	--	--	< 0.029	< 0.032	< 0.03	< 0.033	< 0.033	< 0.031	< 0.03	< 0.032
8270C	N-Nitrosodiphenylamine	86-30-6	MG/KG	99	390	0.06	--	--	--	--	--	--	< 0.027	< 0.03	< 0.028	< 0.03	< 0.031	< 0.029	< 0.028	< 0.03
8270C	Pentachlorophenol	87-86-5	MG/KG	3	10	0.001	--	--	--	--	--	--	< 0.06	< 0.066	< 0.063	< 0.068	< 0.068	< 0.065	< 0.063	< 0.066
8270C	Phenanthrene	85-01-8	MG/KG	NA	NA	NA	--	--	--	--	--	--	< 0.026	< 0.029	< 0.028	< 0.03	< 0.03	< 0.028	< 0.028	< 0.029
8270C	Phenol	108-95-2	MG/KG	18000	100000	5	--	--	--	--	--	--	< 0.039	< 0.043	< 0.041	< 0.044	< 0.044	< 0.042	0.21 J	< 0.043
8270C	Propanil	709-98-8	MG/KG	310	3400	NA	--	--	--	--	--	--	< 0.033	< 0.036	1	30	14	< 0.036	1.6	< 0.037
8270C	Pyrene	129-00-0	MG/KG	2300	32000	210	--	--	--	--	--	--	< 0.028	< 0.03	< 0.029	< 0.031	< 0.032	< 0.03	< 0.029	< 0.031

Table 2
DPT Soil Sampling Analytical Results
Spring 2008
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Residential Soil (mg/kg)	Industrial Outdoor Worker Soil (mg/kg)	DAF1 (mg/kg)	DPT-12 (0-4') 3/27/2008	DPT-12 (12-16') 3/27/2008	DPT-13(2-4') 3/28/2008	DPT-14(2-4') 3/28/2008	DPT-14(8-10') 3/28/2008	DPT-15(2-4') 3/28/2008	DPT-15(4-6') 3/28/2008	DPT-16(2-4') 3/28/2008	DPT-16(6-8') 3/28/2008	DPT-17/TW-5(12-14') 3/28/2008	DPT-17/TW-5(2-4') 3/28/2008	DPT-18(14-16') 3/28/2008	DPT-18(2-4') 3/28/2008
	Metals																		
6020	Aluminum	7429-90-5	MG/KG	76000	100000	NA	17200	12000	--	--	--	--	--	--	--	--	--	--	--
6020	Antimony	7440-36-0	MG/KG	31	450	0.3	0.17	0.18	--	--	--	--	--	--	--	--	--	--	--
6020	Arsenic	7440-38-2	MG/KG	0.39	1.8	1	**5.9**	**9.2**	--	--	--	--	--	--	--	--	--	--	--
6020	Barium	7440-39-3	MG/KG	16000	100000	82	133	192	--	--	--	--	--	--	--	--	--	--	--
6020	Beryllium	7440-41-7	MG/KG	150	2200	3	0.62	0.57	--	--	--	--	--	--	--	--	--	--	--
6020	Cadmium	7440-43-9	MG/KG	39	560	0.4	0.093	0.14	--	--	--	--	--	--	--	--	--	--	--
6020	Calcium	7440-70-2	MG/KG	NA	NA	NA	2300	1920	--	--	--	--	--	--	--	--	--	--	--
6020	Chromium	7440-47-3	MG/KG	210	500	2	16.9	15	--	--	--	--	--	--	--	--	--	--	--
6020	Cobalt	7440-48-4	MG/KG	900	2100	NA	7.9	6.6	--	--	--	--	--	--	--	--	--	--	--
6020	Copper	7440-50-8	MG/KG	2900	42000	NA	13	10.6	--	--	--	--	--	--	--	--	--	--	--
6020	Iron	7439-89-6	MG/KG	55000	100000	NA	19500	23400	--	--	--	--	--	--	--	--	--	--	--
6020	Lead	7439-92-1	MG/KG	400	800	NA	12	11.4	--	--	--	--	--	--	--	--	--	--	--
6020	Magnesium	7439-95-4	MG/KG	NA	NA	NA	2190	2640	--	--	--	--	--	--	--	--	--	--	--
6020	Manganese	7439-96-5	MG/KG	3200	35000	NA	655	311	--	--	--	--	--	--	--	--	--	--	--
6020	Nickel	7440-02-0	MG/KG	1600	23000	7	17.3	18.9	--	--	--	--	--	--	--	--	--	--	--
6020	Potassium	9/7/7440	MG/KG	NA	NA	NA	1350	1450	--	--	--	--	--	--	--	--	--	--	--
6020	Selenium	7782-49-2	MG/KG	390	5700	0.3	0.31	0.26	--	--	--	--	--	--	--	--	--	--	--
6020	Silver	7440-22-4	MG/KG	390	5700	2	0.026	0.021	--	--	--	--	--	--	--	--	--	--	--
6020	Sodium	7440-23-5	MG/KG	NA	NA	NA	323	886	--	--	--	--	--	--	--	--	--	--	--
6020	Thallium	7440-28-0	MG/KG	5.5	80	0.4	0.29	0.34	--	--	--	--	--	--	--	--	--	--	--
6020	Vanadium	7440-62-2	MG/KG	390	5700	300	30.1	32.8	--	--	--	--	--	--	--	--	--	--	--
6020	Zinc	7440-66-6	MG/KG	23000	100000	620	54.6	62.6	--	--	--	--	--	--	--	--	--	--	--
7471A	Mercury	7439-97-6	MG/KG	NA	NA	0.1	0.015 J	0.0036 J	--	--	--	--	--	--	--	--	--	--	--
	Organochlorine Pesticides																		
8081A	4,4'-DDD	72-54-8	MG/KG	2.4	11	0.8	0.044 J	< 0.0071 J	< 0.14 J	< 0.014 J	< 0.014 J	< 0.07 J	< 0.014 J	< 0.066 J	< 0.68 J	< 0.014 J	< 0.13 J	< 0.014 J	0.05 J
8081A	4,4'-DDE	72-55-9	MG/KG	1.7	7.8	3	< 0.0029 J	< 0.0031 J	0.14 J	< 0.0061 J	< 0.0061 J	< 0.03 J	< 0.006 J	< 0.029 J	< 0.3 J	< 0.006 J	< 0.057 J	< 0.0061 J	0.12 J
8081A	4,4'-DDT	50-29-3	MG/KG	1.7	7.8	2	< 0.0073 J	0.0096 J	1.2 J	< 0.015 J	< 0.015 J	0.48 J	< 0.015 J	0.17 J	< 0.74 J	< 0.015 J	0.53 J	< 0.015 J	0.36 J
8081A	Aldrin	309-00-2	MG/KG	0.029	0.11	0.02	< 0.0031 J	< 0.0033 J	< 0.064 J	**0.036 J**	< 0.0064 J	< 0.032 J	< 0.0063 J	< 0.03 J	< 0.31 J	< 0.0064 J	< 0.06 J	< 0.0065 J	**0.13 J**
8081A	alpha-BHC	319-84-6	MG/KG	0.09	0.4	0.00003	0.011 J	0.014 J	< 0.055 J	< 0.0055 J	< 0.0055 J	< 0.027 J	< 0.0054 J	< 0.026 J	< 0.27 J	< 0.0054 J	< 0.051 J	< 0.0055 J	< 0.0054 J
8081A	alpha-Chlordane	5103-71-9	MG/KG	NA	NA	NA	< 0.004 J	< 0.0042 J	< 0.083 J	< 0.0082 J	< 0.0083 J	0.39 J	< 0.0081 J	< 0.039 J	< 0.4 J	< 0.0082 J	< 0.077 J	< 0.0083 J	< 0.0081 J
8081A	beta-BHC	319-85-7	MG/KG	0.32	1.4	0.0001	< 0.0035 J	< 0.0037 J	**0.8 J**	< 0.0073 J	< 0.0073 J	**1.1 J**	< 0.0072 J	< 0.035 J	< 0.36 J	< 0.0073 J	**1.1 J**	< 0.0074 J	< 0.0072 J
8081A	Chlordane (technical)	57-74-9	MG/KG	1.6	7.2	0.5	< 0.096 J	< 0.1 J	< 2 J	< 0.2 J	< 0.2 J	< 1 J	< 0.2 J	< 0.95 J	< 9.7 J	< 0.2 J	< 1.9 J	< 0.2 J	< 0.2 J
8081A	delta-BHC	319-86-8	MG/KG	NA	NA	NA	< 0.0021 J	< 0.0022 J	< 0.043 J	< 0.0042 J	< 0.0043 J	< 0.021 J	< 0.0042 J	< 0.02 J	< 0.21 J	< 0.0042 J	< 0.04 J	< 0.0043 J	< 0.0042 J
8081A	Dieldrin	60-57-1	MG/KG	0.03	0.12	0.0002	< 0.0026 J	0.0061 J	< 0.054 J	**0.48 J**	< 0.0054 J	**4 J**	**0.2 J**	0.53 J	< 0.26 J	< 0.0053 J	< 0.05 J	0.015 J	**0.45 J**
8081A	Endosulfan I	959-98-8	MG/KG	NA	NA	NA	< 0.0022 J	< 0.0023 J	< 0.045 J	< 0.0045 J	< 0.0045 J	< 0.023 J	< 0.0044 J	< 0.021 J	< 0.22 J	< 0.0045 J	< 0.042 J	< 0.0045 J	< 0.0044 J
8081A	Endosulfan II	33213-65-9	MG/KG	NA	NA	NA	< 0.0035 J	< 0.0037 J	< 0.074 J	< 0.0073 J	< 0.0073 J	< 0.037 J	< 0.0072 J	< 0.035 J	< 0.36 J	< 0.0073 J	< 0.068 J	< 0.0074 J	< 0.0072 J
8081A	Endosulfan sulfate	1031-07-8	MG/KG	NA	NA	NA	< 0.0034 J	< 0.0036 J	< 0.071 J	< 0.007 J	< 0.0071 J	0.047 J	< 0.0069 J	< 0.034 J	< 0.34 J	< 0.007 J	< 0.066 J	< 0.0071 J	< 0.0069 J
8081A	Endrin	72-20-8	MG/KG	18	210	0.05	0.0081 J	< 0.004 J	< 0.079 J	< 0.0078 J	< 0.0078 J	< 0.039 J	< 0.0077 J	< 0.037 J	< 0.38 J	< 0.0078 J	< 0.073 J	< 0.0079 J	< 0.0077 J
8081A	Endrin aldehyde	7421-93-4	MG/KG	NA	NA	NA	< 0.0026 J	< 0.0028 J	< 0.055 J	< 0.0054 J	< 0.0055 J	< 0.027 J	< 0.0054 J	< 0.026 J	< 0.27 J	< 0.0054 J	< 0.051 J	< 0.0055 J	< 0.0053 J
8081A	Endrin ketone	53494-70-5	MG/KG	NA	NA	NA	< 0.0026 J	< 0.0028 J	< 0.055 J	< 0.0054 J	< 0.0055 J	< 0.027 J	< 0.0054 J	< 0.026 J	< 0.27 J	< 0.0054 J	< 0.051 J	< 0.0055 J	< 0.0053 J
8081A	gamma-BHC (Lindane)	58-89-9	MG/KG	0.44	1.9	0.0005	< 0.0018 J	< 0.0019 J	**5 J**	< 0.0036 J	< 0.0037 J	**0.84 J**	**0.48 J**	< 0.017 J	< 0.18 J	< 0.0036 J	**1.2 J**	< 0.0037 J	< 0.0036 J
8081A	gamma-Chlordane	5103-74-2	MG/KG	NA	NA	NA	0.0048 J	< 0.0035 J	0.13 J	< 0.0068 J	< 0.0068 J	< 0.034 J	< 0.0067 J	< 0.032 J	< 0.33 J	< 0.0068 J	< 0.063 J	< 0.0069 J	< 0.0067 J
8081A	Heptachlor	76-44-8	MG/KG	0.11	0.43	1	< 0.0026 J	< 0.0028 J	< 0.055 J	< 0.0055 J	< 0.0055 J	< 0.027 J	< 0.0054 J	< 0.026 J	< 0.27 J	< 0.0054 J	< 0.051 J	< 0.0055 J	< 0.0054 J
8081A	Heptachlor epoxide	1024-57-3	MG/KG	0.053	0.21	0.03	0.027 J	< 0.0055 J	< 0.11 J	< 0.011 J	< 0.011 J	< 0.054 J	< 0.011 J	< 0.052 J	< 0.53 J	< 0.011 J	< 0.1 J	< 0.011 J	< 0.011 J
8081A	Methoxychlor	72-43-5	MG/KG	310	3400	8	< 0.0056 J	0.24 J	0.14 J	0.37 J	< 0.012 J	0.11 J	0.033 J	2.2 J	25 J	< 0.011 J	2.9 J	< 0.012 J	0.039 J
8081A	Toxaphene	8001-35-2	MG/KG	0.44	1.7	2	< 0.2 J	< 0.2 J	< 4.1 J	< 0.4 J	< 0.4 J	< 2 J	< 0.4 J	< 1.9 J	< 20 J	< 0.4 J	< 3.8 J	< 0.41 J	< 0.4 J
	Herbicides																		
8151A	Dinoseb	88-85-7	MG/KG	61	680	NA	9.8	0.12	**83**	0.64	0.015 UBJ	**530**	**260**	5.4	0.057	0.012 J	**320**	0.065 J	22
	Volatile Organic Compounds (VOCs)																		
8260B	1,1,1-Trichloroethane	71-55-6	MG/KG	1400	1400	0.1	< 0.5	< 2.6	--	--	--	--	--	--	--	--	--	--	--
8260B	1,1,2,2-Tetrachloroethane	79-34-5	MG/KG	0.38	0.97	0.0002	< 0.69	< 3.7	--	--	--	--	--	--	--	--	--	--	--
8260B	1,1,2-Trichloroethane	79-00-5	MG/KG	0.84	2.1	0.0009	< 0.55	< 2.9	--	--	--	--	--	--	--	--	--	--	--
8260B	1,1-Dichloroethane	75-34-3	MG/KG	850	2300	1	< 0.53	< 2.8	--	--	--	--	--	--	--	--	--	--	--
8260B	1,1-Dichloroethene	75-35-4	MG/KG	280	470	0.003	< 0.55	< 2.9	--	--	--	--	--	--	--	--	--	--	--
8260B	1,2-Dibromoethane (EDB)	106-93-4	MG/KG	0.028	0.07	NA	< 0.6	< 3.2	--	--	--	--	--	--	--	--	--	--	--

Table 2
DPT Soil Sampling Analytical Results
Spring 2008
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Residential Soil (mg/kg)	Industrial Outdoor Worker Soil (mg/kg)	DAF1 (mg/kg)	DPT-12 (0-4') 3/27/2008	DPT-12 (12-16') 3/27/2008	DPT-13(2-4') 3/28/2008	DPT-14(2-4') 3/28/2008	DPT-14(8-10') 3/28/2008	DPT-15(2-4') 3/28/2008	DPT-15(4-6') 3/28/2008	DPT-16(2-4') 3/28/2008	DPT-16(6-8') 3/28/2008	DPT-17/TW-5(12-14') 3/28/2008	DPT-17/TW-5(2-4') 3/28/2008	DPT-18(14-16') 3/28/2008	DPT-18(2-4') 3/28/2008
8260B	1,2-Dichlorobenzene	95-50-1	MG/KG	280	370	0.9	6.9	< 3	--	--	--	--	--	--	--	--	--	--	--
8260B	1,2-Dichloroethane	107-06-2	MG/KG	0.35	0.84	0.001	< 0.59	< 3.1	--	--	--	--	--	--	--	--	--	--	--
8260B	1,2-Dichloroethene (total)	540-59-0	MG/KG	NA	NA	NA	< 1	< 5.4	--	--	--	--	--	--	--	--	--	--	--
8260B	1,2-Dichloropropane	78-87-5	MG/KG	0.35	0.85	0.001	< 0.62	< 3.3	--	--	--	--	--	--	--	--	--	--	--
8260B	1,3-Dichlorobenzene	541-73-1	MG/KG	69	140	NA	< 0.51	< 2.7	--	--	--	--	--	--	--	--	--	--	--
8260B	1,4-Dichlorobenzene	106-46-7	MG/KG	3.2	8.1	0.1	< 0.53	< 2.8	--	--	--	--	--	--	--	--	--	--	--
8260B	2-Butanone (MEK)	78-93-3	MG/KG	32000	34000	NA	< 1.1 J	< 5.7 J	--	--	--	--	--	--	--	--	--	--	--
8260B	2-Chloroethyl vinyl ether	110-75-8	MG/KG	NA	NA	NA	< 0.62	< 3.3	--	--	--	--	--	--	--	--	--	--	--
8260B	2-Hexanone	591-78-6	MG/KG	NA	NA	NA	< 0.64	< 3.4	--	--	--	--	--	--	--	--	--	--	--
8260B	4-Methyl-2-pentanone (MIBK)	108-10-1	MG/KG	5800	17000	NA	< 0.69	< 3.7	--	--	--	--	--	--	--	--	--	--	--
8260B	Acetone	67-64-1	MG/KG	14000	60000	0.8	3.9 J	< 5.9	--	--	--	--	--	--	--	--	--	--	--
8260B	Benzene	71-43-2	MG/KG	0.66	1.6	0.002	< 0.59	< 3.1	--	--	--	--	--	--	--	--	--	--	--
8260B	Bromobenzene	108-86-1	MG/KG	73	120	NA	< 0.56	< 3	--	--	--	--	--	--	--	--	--	--	--
8260B	Bromochloromethane	74-97-5	MG/KG	NA	NA	NA	< 0.49	< 2.6	--	--	--	--	--	--	--	--	--	--	--
8260B	Bromodichloromethane	75-27-4	MG/KG	1	2.6	0.03	< 0.63	< 3.4	--	--	--	--	--	--	--	--	--	--	--
8260B	Bromoform	75-25-2	MG/KG	62	240	0.04	< 0.91	< 4.9	--	--	--	--	--	--	--	--	--	--	--
8260B	Bromomethane	74-83-9	MG/KG	3.9	15	0.01	< 0.53	< 2.8	--	--	--	--	--	--	--	--	--	--	--
8260B	Carbon disulfide	75-15-0	MG/KG	720	720	2	< 0.5	< 2.7	--	--	--	--	--	--	--	--	--	--	--
8260B	Carbon tetrachloride	56-23-5	MG/KG	0.24	0.58	0.003	< 0.54	< 2.9	--	--	--	--	--	--	--	--	--	--	--
8260B	Chlorobenzene	108-90-7	MG/KG	270	500	0.07	< 0.52	< 2.8	--	--	--	--	--	--	--	--	--	--	--
8260B	Chloroethane	75-00-3	MG/KG	3	7.2	NA	< 0.53	< 2.8	--	--	--	--	--	--	--	--	--	--	--
8260B	Chloroform	67-66-3	MG/KG	0.25	0.58	0.03	< 0.5	< 2.6	--	--	--	--	--	--	--	--	--	--	--
8260B	Chloromethane	74-87-3	MG/KG	1.3	3	NA	< 0.57	< 3	--	--	--	--	--	--	--	--	--	--	--
8260B	cis-1,2-Dichloroethene	156-59-2	MG/KG	43	160	0.02	< 0.51	< 2.7	--	--	--	--	--	--	--	--	--	--	--
8260B	cis-1,3-Dichloropropene	10061-01-5	MG/KG	0.7	1.8	0.0002	< 0.58	< 3.1	--	--	--	--	--	--	--	--	--	--	--
8260B	Dibromochloromethane	124-48-1	MG/KG	1	2.6	0.02	< 0.53	< 2.8	--	--	--	--	--	--	--	--	--	--	--
8260B	Dibromomethane	74-95-3	MG/KG	140	590	NA	< 0.61	< 3.2	--	--	--	--	--	--	--	--	--	--	--
8260B	Ethylbenzene	100-41-4	MG/KG	230	230	0.7	0.89 J	10	--	--	--	--	--	--	--	--	--	--	--
8260B	Methylene chloride	75-09-2	MG/KG	8.9	22	0.001	< 0.55	< 2.9	--	--	--	--	--	--	--	--	--	--	--
8260B	m-Xylene & p-Xylene	136777-61-2	MG/KG	NA	NA	NA	3.7	39	--	--	--	--	--	--	--	--	--	--	--
8260B	o-Xylene	95-47-6	MG/KG	280	280	9	2	20	--	--	--	--	--	--	--	--	--	--	--
8260B	Styrene	100-42-5	MG/KG	1700	1700	0.2	< 0.52	< 2.8	--	--	--	--	--	--	--	--	--	--	--
8260B	Tetrachloroethene	127-18-4	MG/KG	0.55	1.7	0.003	< 0.57	< 3	--	--	--	--	--	--	--	--	--	--	--
8260B	Toluene	108-88-3	MG/KG	520	520	0.6	25	400	--	--	--	--	--	--	--	--	--	--	--
8260B	trans-1,2-Dichloroethene	156-60-5	MG/KG	120	200	0.03	< 0.5	< 2.7	--	--	--	--	--	--	--	--	--	--	--
8260B	trans-1,3-Dichloropropene	10061-02-6	MG/KG	0.7	1.8	0.0002	< 0.52	< 2.8	--	--	--	--	--	--	--	--	--	--	--
8260B	Trichloroethene	79-01-6	MG/KG	0.043	0.1	0.003	< 0.54	< 2.9	--	--	--	--	--	--	--	--	--	--	--
8260B	Trichlorofluoromethane	75-69-4	MG/KG	390	1400	NA	< 0.52	< 2.8	--	--	--	--	--	--	--	--	--	--	--
8260B	Vinyl acetate	108-05-4	MG/KG	430	1600	8	< 0.79	< 4.2	--	--	--	--	--	--	--	--	--	--	--
8260B	Vinyl chloride	75-01-4	MG/KG	0.043	0.86	0.0007	< 0.55	< 2.9	--	--	--	--	--	--	--	--	--	--	--
8260B	Xylenes (total)	1330-20-7	MG/KG	210	210	10	5.7	59	--	--	--	--	--	--	--	--	--	--	--
Semivolatile Organic Compounds (SVOCs)																			
8270C	1,2,4-Trichlorobenzene	120-82-1	MG/KG	140	260	0.3	< 0.28	< 0.29	--	--	--	--	--	--	--	--	--	--	--
8270C	1,2-Dichlorobenzene	95-50-1	MG/KG	280	370	0.9	17	3.2	--	--	--	--	--	--	--	--	--	--	--
8270C	1,3-Dichlorobenzene	541-73-1	MG/KG	69	140	NA	< 0.21	< 0.22	--	--	--	--	--	--	--	--	--	--	--
8270C	1,4-Dichlorobenzene	106-46-7	MG/KG	3.2	8.1	0.1	0.22 J	< 0.19	--	--	--	--	--	--	--	--	--	--	--
8270C	2,4,5-Trichlorophenol	95-95-4	MG/KG	6100	68000	14	< 0.21	< 0.22	--	--	--	--	--	--	--	--	--	--	--
8270C	2,4,6-Trichlorophenol	88-06-2	MG/KG	44	170	0.008	< 0.27	< 0.28	--	--	--	--	--	--	--	--	--	--	--
8270C	2,4-Dichlorophenol	120-83-2	MG/KG	180	2100	0.05	< 0.27	< 0.28	--	--	--	--	--	--	--	--	--	--	--
8270C	2,4-Dimethylphenol	105-67-9	MG/KG	1200	14000	0.4	< 0.49	< 0.51	--	--	--	--	--	--	--	--	--	--	--
8270C	2,4-Dinitrophenol	51-28-5	MG/KG	120	1400	0.01	< 1.1	< 1.2	--	--	--	--	--	--	--	--	--	--	--
8270C	2,4-Dinitrotoluene	121-14-2	MG/KG	120	1400	0.00004	< 0.97	< 1	--	--	--	--	--	--	--	--	--	--	--
8270C	2,6-Dinitrotoluene	606-20-2	MG/KG	61	680	0.00003	< 0.25	< 0.27	--	--	--	--	--	--	--	--	--	--	--
8270C	2-Chloronaphthalene	91-58-7	MG/KG	3900	26000	NA	< 0.19	< 0.2	--	--	--	--	--	--	--	--	--	--	--
8270C	2-Chlorophenol	95-57-8	MG/KG	64	260	0.2	< 0.18	< 0.19	--	--	--	--	--	--	--	--	--	--	--
8270C	2-Methylnaphthalene	91-57-6	MG/KG	NA	NA	NA	< 0.2	< 0.21	--	--	--	--	--	--	--	--	--	--	--

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8270C	2-Methylphenol	95-48-7	MG/KG	3100	34000	0.8	< 0.25	0.74 J	--	--	--	--	--	--	--	--	--	--	--
8270C	2-Nitroaniline	88-74-4	MG/KG	180	2000	NA	< 0.26	< 0.28	--	--	--	--	--	--	--	--	--	--	--
8270C	2-Nitrophenol	88-75-5	MG/KG	NA	NA	NA	< 0.39	< 0.41	--	--	--	--	--	--	--	--	--	--	--
8270C	3,3'-Dichlorobenzidine	91-94-1	MG/KG	1.1	4.3	0.0003	< 0.15	< 0.15	--	--	--	--	--	--	--	--	--	--	--
8270C	3,4-Dichloroaniline	95-76-1	MG/KG	NA	NA	NA	59	22	--	--	--	--	--	--	--	--	--	--	--
8270C	3-Methylphenol & 4-Methylphenol	65794-96-9	MG/KG	310	3400	NA	< 0.4	0.88 J	--	--	--	--	--	--	--	--	--	--	--
8270C	3-Nitroaniline	99-09-2	MG/KG	NA	NA	NA	< 0.2	< 0.21	--	--	--	--	--	--	--	--	--	--	--
8270C	4,6-Dinitro-2-methylphenol	534-52-1	MG/KG	NA	NA	NA	< 0.88	< 0.92	--	--	--	--	--	--	--	--	--	--	--
8270C	4-Bromophenyl phenyl ether	101-55-3	MG/KG	NA	NA	NA	< 0.19	< 0.2	--	--	--	--	--	--	--	--	--	--	--
8270C	4-Chloro-3-methylphenol	59-50-7	MG/KG	NA	NA	NA	< 0.33	< 0.34	--	--	--	--	--	--	--	--	--	--	--
8270C	4-Chloroaniline	106-47-8	MG/KG	240	2700	0.03	3.7	< 0.24	--	--	--	--	--	--	--	--	--	--	--
8270C	4-Chlorophenyl phenyl ether	7005-72-3	MG/KG	NA	NA	NA	< 0.16	< 0.17	--	--	--	--	--	--	--	--	--	--	--
8270C	4-Nitroaniline	100-01-6	MG/KG	NA	NA	NA	< 0.62	< 0.65	--	--	--	--	--	--	--	--	--	--	--
8270C	4-Nitrophenol	100-02-7	MG/KG	490	5500	NA	< 0.93	< 0.98	--	--	--	--	--	--	--	--	--	--	--
8270C	Acenaphthene	83-32-9	MG/KG	3700	33000	29	< 0.21	< 0.22	--	--	--	--	--	--	--	--	--	--	--
8270C	Acenaphthylene	208-96-8	MG/KG	NA	NA	NA	< 0.2	< 0.21	--	--	--	--	--	--	--	--	--	--	--
8270C	Aniline	62-53-3	MG/KG	85	340	NA	< 0.2	< 0.2	--	--	--	--	--	--	--	--	--	--	--
8270C	Anthracene	120-12-7	MG/KG	22000	100000	590	< 0.15	< 0.16	--	--	--	--	--	--	--	--	--	--	--
8270C	Benzo(a)anthracene	56-55-3	MG/KG	0.15	2.3	0.08	< 0.12	< 0.13	--	--	--	--	--	--	--	--	--	--	--
8270C	Benzo(a)pyrene	50-32-8	MG/KG	0.015	0.23	0.4	< 0.14	< 0.15	--	--	--	--	--	--	--	--	--	--	--
8270C	Benzo(b)fluoranthene	205-99-2	MG/KG	0.15	2.3	0.2	< 0.32	< 0.34	--	--	--	--	--	--	--	--	--	--	--
8270C	Benzo(ghi)perylene	191-24-2	MG/KG	NA	NA	NA	< 0.17	< 0.17	--	--	--	--	--	--	--	--	--	--	--
8270C	Benzo(k)fluoranthene	207-08-9	MG/KG	1.5	23	2	< 0.25	< 0.26	--	--	--	--	--	--	--	--	--	--	--
8270C	Benzoic acid	65-85-0	MG/KG	100000	100000	20	< 0.72	< 0.75	--	--	--	--	--	--	--	--	--	--	--
8270C	Benzyl alcohol	100-51-6	MG/KG	18000	100000	NA	< 0.51	< 0.54	--	--	--	--	--	--	--	--	--	--	--
8270C	bis(2-Chloroethoxy)methane	111-91-1	MG/KG	NA	NA	NA	< 0.2	< 0.21	--	--	--	--	--	--	--	--	--	--	--
8270C	bis(2-Chloroethyl) ether	111-44-4	MG/KG	0.21	0.62	0.00002	< 0.21	< 0.22	--	--	--	--	--	--	--	--	--	--	--
8270C	bis(2-Chloroisopropyl) ether	108-60-1	MG/KG	2.9	8.2	NA	< 0.17	< 0.18	--	--	--	--	--	--	--	--	--	--	--
8270C	bis(2-Ethylhexyl) phthalate	117-81-7	MG/KG	35	140	180	0.47 J	< 0.27	--	--	--	--	--	--	--	--	--	--	--
8270C	Butyl benzyl phthalate	85-68-7	MG/KG	240	240	810	< 0.16	< 0.17	--	--	--	--	--	--	--	--	--	--	--
8270C	Chrysene	218-01-9	MG/KG	15	230	8	< 0.14	< 0.15	--	--	--	--	--	--	--	--	--	--	--
8270C	Dibenz(a,h)anthracene	53-70-3	MG/KG	0.015	0.23	0.08	< 0.52	< 0.54	--	--	--	--	--	--	--	--	--	--	--
8270C	Dibenzofuran	132-64-9	MG/KG	150	1700	NA	< 0.22	< 0.23	--	--	--	--	--	--	--	--	--	--	--
8270C	Diethyl phthalate	84-66-2	MG/KG	49000	100000	NA	< 0.13	< 0.14	--	--	--	--	--	--	--	--	--	--	--
8270C	Dimethyl phthalate	131-11-3	MG/KG	100000	100000	NA	< 0.15	< 0.15	--	--	--	--	--	--	--	--	--	--	--
8270C	Di-n-butyl phthalate	84-74-2	MG/KG	6100	68000	270	< 0.15	0.2 J	--	--	--	--	--	--	--	--	--	--	--
8270C	Di-n-octyl phthalate	117-84-0	MG/KG	NA	NA	10000	< 0.75	< 0.78	--	--	--	--	--	--	--	--	--	--	--
8270C	Dinoseb	88-85-7	MG/KG	61	680	NA	**530**	6	--	--	--	--	--	--	--	--	--	--	--
8270C	Fluoranthene	206-44-0	MG/KG	2300	24000	210	< 0.15	< 0.16	--	--	--	--	--	--	--	--	--	--	--
8270C	Fluorene	86-73-7	MG/KG	2600	26000	28	< 0.14	< 0.15	--	--	--	--	--	--	--	--	--	--	--
8270C	Hexachlorobenzene	118-74-1	MG/KG	0.3	1.2	0.1	< 0.17	< 0.18	--	--	--	--	--	--	--	--	--	--	--
8270C	Hexachlorobutadiene	87-68-3	MG/KG	6.2	25	0.1	< 0.25	< 0.26	--	--	--	--	--	--	--	--	--	--	--
8270C	Hexachlorocyclopentadiene	77-47-4	MG/KG	370	4100	20	< 1	< 1.1	--	--	--	--	--	--	--	--	--	--	--
8270C	Hexachloroethane	67-72-1	MG/KG	35	140	0.02	< 0.27	< 0.28	--	--	--	--	--	--	--	--	--	--	--
8270C	Indeno(1,2,3-cd)pyrene	193-39-5	MG/KG	0.15	2.3	0.7	< 0.32	< 0.33	--	--	--	--	--	--	--	--	--	--	--
8270C	Isophorone	78-59-1	MG/KG	510	2000	0.03	< 0.26	3.9	--	--	--	--	--	--	--	--	--	--	--
8270C	Naphthalene	91-20-3	MG/KG	120	210	4	< 0.2	0.39 J	--	--	--	--	--	--	--	--	--	--	--
8270C	Nitrobenzene	98-95-3	MG/KG	20	110	0.007	< 0.3	< 0.32	--	--	--	--	--	--	--	--	--	--	--
8270C	N-Nitrosodi-n-propylamine	621-64-7	MG/KG	0.07	0.27	0.000002	< 0.15	< 0.16	--	--	--	--	--	--	--	--	--	--	--
8270C	N-Nitrosodiphenylamine	86-30-6	MG/KG	99	390	0.06	< 0.14	< 0.15	--	--	--	--	--	--	--	--	--	--	--
8270C	Pentachlorophenol	87-86-5	MG/KG	3	10	0.001	< 0.31	< 0.33	--	--	--	--	--	--	--	--	--	--	--
8270C	Phenanthrene	85-01-8	MG/KG	NA	NA	NA	< 0.14	< 0.14	--	--	--	--	--	--	--	--	--	--	--
8270C	Phenol	108-95-2	MG/KG	18000	100000	5	< 0.2	< 0.21	--	--	--	--	--	--	--	--	--	--	--
8270C	Propanil	709-98-8	MG/KG	310	3400	NA	120	110	--	--	--	--	--	--	--	--	--	--	--
8270C	Pyrene	129-00-0	MG/KG	2300	32000	210	< 0.14	< 0.15	--	--	--	--	--	--	--	--	--	--	--

Table 2
DPT Soil Sampling Analytical Results
Spring 2008
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Residential Soil (mg/kg)	Industrial Outdoor Worker Soil (mg/kg)	DAF1 (mg/kg)	DPT-18(4-6') 3/28/2008	DPT-19(2-4') 3/28/2008	DPT-2 (0-4') 3/26/2008	DPT-2 (12-16') 3/26/2008	DPT-20(2-4') 3/28/2008	DPT-21(2-4') 3/28/2008	DPT-21(8-10') 3/28/2008	DPT-22(2-4') 3/28/2008	DPT-22(8-10') 3/28/2008	DPT-23(14-16') 3/28/2008	DPT-23(2-4') 3/28/2008	DPT-24(2-4') 3/29/2008	DPT-24(8-10') 3/29/2008	DPT-25(2-4') 3/29/2008
	Metals																			
6020	Aluminum	7429-90-5	MG/KG	76000	100000	NA	--	--	7320	10700	--	--	--	--	--	--	--	--	--	--
6020	Antimony	7440-36-0	MG/KG	31	450	0.3	--	--	0.2 UB	0.48	--	--	--	--	--	--	--	--	--	--
6020	Arsenic	7440-38-2	MG/KG	0.39	1.8	1	--	--	**4.2**	**10.4**	--	--	--	--	--	--	--	--	--	--
6020	Barium	7440-39-3	MG/KG	16000	100000	82	--	--	68.4	196	--	--	--	--	--	--	--	--	--	--
6020	Beryllium	7440-41-7	MG/KG	150	2200	3	--	--	0.34	0.55	--	--	--	--	--	--	--	--	--	--
6020	Cadmium	7440-43-9	MG/KG	39	560	0.4	--	--	0.13	0.54	--	--	--	--	--	--	--	--	--	--
6020	Calcium	7440-70-2	MG/KG	NA	NA	NA	--	--	17600	1580	--	--	--	--	--	--	--	--	--	--
6020	Chromium	7440-47-3	MG/KG	210	500	2	--	--	22.9 JH	14.8 JH	--	--	--	--	--	--	--	--	--	--
6020	Cobalt	7440-48-4	MG/KG	900	2100	NA	--	--	5.8	8.7	--	--	--	--	--	--	--	--	--	--
6020	Copper	7440-50-8	MG/KG	2900	42000	NA	--	--	9.2	17.8	--	--	--	--	--	--	--	--	--	--
6020	Iron	7439-89-6	MG/KG	55000	100000	NA	--	--	10400	21300	--	--	--	--	--	--	--	--	--	--
6020	Lead	7439-92-1	MG/KG	400	800	NA	--	--	7.6	12.7	--	--	--	--	--	--	--	--	--	--
6020	Magnesium	7439-95-4	MG/KG	NA	NA	NA	--	--	1820	2580	--	--	--	--	--	--	--	--	--	--
6020	Manganese	7439-96-5	MG/KG	3200	35000	NA	--	--	304	281	--	--	--	--	--	--	--	--	--	--
6020	Nickel	7440-02-0	MG/KG	1600	23000	7	--	--	28.6	21.3	--	--	--	--	--	--	--	--	--	--
6020	Potassium	9/7/7440	MG/KG	NA	NA	NA	--	--	737 JH	1160 JH	--	--	--	--	--	--	--	--	--	--
6020	Selenium	7782-49-2	MG/KG	390	5700	0.3	--	--	0.15	< 0.15	--	--	--	--	--	--	--	--	--	--
6020	Silver	7440-22-4	MG/KG	390	5700	2	--	--	1.3	0.074	--	--	--	--	--	--	--	--	--	--
6020	Sodium	7440-23-5	MG/KG	NA	NA	NA	--	--	583	2260	--	--	--	--	--	--	--	--	--	--
6020	Thallium	7440-28-0	MG/KG	5.5	80	0.4	--	--	0.12	0.35	--	--	--	--	--	--	--	--	--	--
6020	Vanadium	7440-62-2	MG/KG	390	5700	300	--	--	17.6	33.3	--	--	--	--	--	--	--	--	--	--
6020	Zinc	7440-66-6	MG/KG	23000	100000	620	--	--	27.8	68.3	--	--	--	--	--	--	--	--	--	--
7471A	Mercury	7439-97-6	MG/KG	NA	NA	0.1	--	--	0.018 J	0.091 J	--	--	--	--	--	--	--	--	--	--
	Organochlorine Pesticides																			
8081A	4,4'-DDD	72-54-8	MG/KG	2.4	11	0.8	< 0.014 J	< 0.014 J	< 0.066 J	< 0.036 J	< 0.66 J	< 0.13 J	< 0.014 J	< 0.075 J	< 0.014 J	< 0.014 J	< 0.7 J	< 0.013 J	< 0.014 J	< 0.13 J
8081A	4,4'-DDE	72-55-9	MG/KG	1.7	7.8	3	< 0.0061 J	< 0.0062 J	< 0.029 J	< 0.016 J	< 0.29 J	0.13 J	< 0.006 J	0.037 J	< 0.0062 J	< 0.0062 J	< 0.3 J	< 0.0057 J	< 0.0061 J	< 0.057 J
8081A	4,4'-DDT	50-29-3	MG/KG	1.7	7.8	2	< 0.015 J	< 0.015 J	0.097 J	< 0.039 J	1.2 J	0.85 J	< 0.015 J	0.36 J	< 0.015 J	< 0.015 J	1.6 J	< 0.014 J	< 0.015 J	0.19 J
8081A	Aldrin	309-00-2	MG/KG	0.029	0.11	0.02	0.025 J	< 0.0066 J	< 0.03 J	< 0.016 J	**2.2 J**	< 0.06 J	< 0.0063 J	< 0.035 J	< 0.0065 J	< 0.0065 J	< 0.32 J	< 0.006 J	< 0.0065 J	**0.28 J**
8081A	alpha-BHC	319-84-6	MG/KG	0.09	0.4	0.00003	< 0.0055 J	< 0.0056 J	< 0.026 J	< 0.014 J	< 0.26 J	< 0.052 J	< 0.0054 J	< 0.03 J	< 0.0055 J	< 0.0056 J	< 0.27 J	< 0.0052 J	< 0.0055 J	< 0.051 J
8081A	alpha-Chlordane	5103-71-9	MG/KG	NA	NA	NA	0.03 J	< 0.0084 J	< 0.039 J	< 0.021 J	< 0.39 J	0.66 J	< 0.0081 J	< 0.045 J	< 0.0084 J	< 0.0084 J	2.8 J	< 0.0078 J	< 0.0083 J	< 0.077 J
8081A	beta-BHC	319-85-7	MG/KG	0.32	1.4	0.0001	0.17 J	< 0.0075 J	< 0.034 J	< 0.019 J	< 0.34 J	**0.56 J**	< 0.0072 J	< 0.04 J	< 0.0074 J	< 0.0075 J	**2.8 J**	< 0.0069 J	< 0.0074 J	< 0.068 J
8081A	Chlordane (technical)	57-74-9	MG/KG	1.6	7.2	0.5	< 0.2 J	< 0.2 J	< 0.94 J	< 0.51 J	< 9.4 J	< 1.9 J	< 0.2 J	< 1.1 J	< 0.2 J	< 0.2 J	< 10 J	< 0.19 J	< 0.2 J	< 1.9 J
8081A	delta-BHC	319-86-8	MG/KG	NA	NA	NA	< 0.0043 J	0.0088 J	< 0.02 J	< 0.011 J	< 0.2 J	< 0.04 J	< 0.0042 J	< 0.023 J	< 0.0043 J	< 0.0043 J	< 0.21 J	< 0.004 J	< 0.0043 J	< 0.04 J
8081A	Dieldrin	60-57-1	MG/KG	0.03	0.12	0.0002	**0.47 J**	**0.05 J**	< 0.025 J	< 0.014 J	**1.8 J**	< 0.051 J	< 0.0053 J	< 0.029 J	< 0.0054 J	< 0.0055 J	< 0.27 J	**0.052 J**	< 0.0054 J	**4.9 J**
8081A	Endosulfan I	959-98-8	MG/KG	NA	NA	NA	< 0.0045 J	< 0.0046 J	< 0.021 J	< 0.012 J	< 0.21 J	< 0.042 J	< 0.0044 J	< 0.024 J	< 0.0046 J	< 0.0046 J	< 0.23 J	< 0.0042 J	< 0.0045 J	< 0.042 J
8081A	Endosulfan II	33213-65-9	MG/KG	NA	NA	NA	< 0.0074 J	< 0.0075 J	< 0.035 J	< 0.019 J	< 0.35 J	< 0.069 J	< 0.0072 J	< 0.04 J	< 0.0074 J	< 0.0075 J	< 0.37 J	< 0.0069 J	< 0.0074 J	< 0.068 J
8081A	Endosulfan sulfate	1031-07-8	MG/KG	NA	NA	NA	< 0.0071 J	< 0.0072 J	< 0.033 J	< 0.018 J	< 0.33 J	< 0.066 J	< 0.0069 J	< 0.038 J	< 0.0072 J	< 0.0072 J	< 0.35 J	< 0.0066 J	< 0.0071 J	< 0.066 J
8081A	Endrin	72-20-8	MG/KG	18	210	0.05	< 0.0079 J	< 0.008 J	< 0.037 J	< 0.02 J	< 0.37 J	< 0.074 J	< 0.0077 J	< 0.042 J	< 0.0079 J	< 0.008 J	< 0.39 J	< 0.0074 J	< 0.0079 J	0.083 J
8081A	Endrin aldehyde	7421-93-4	MG/KG	NA	NA	NA	< 0.0055 J	< 0.0056 J	< 0.026 J	0.017 J	< 0.26 J	< 0.051 J	< 0.0053 J	< 0.029 J	< 0.0055 J	< 0.0056 J	< 0.27 J	< 0.0051 J	< 0.0055 J	0.18 J
8081A	Endrin ketone	53494-70-5	MG/KG	NA	NA	NA	< 0.0055 J	< 0.0056 J	< 0.026 J	< 0.014 J	< 0.26 J	< 0.051 J	< 0.0053 J	< 0.029 J	< 0.0055 J	< 0.0056 J	< 0.27 J	< 0.0051 J	< 0.0055 J	0.25 J
8081A	gamma-BHC (Lindane)	58-89-9	MG/KG	0.44	1.9	0.0005	**0.27 J**	< 0.0037 J	< 0.017 J	< 0.0094 J	< 0.17 J	**45 J**	< 0.0036 J	**0.68 J**	< 0.0037 J	< 0.0037 J	**0.95 J**	< 0.0034 J	< 0.0037 J	< 0.034 J
8081A	gamma-Chlordane	5103-74-2	MG/KG	NA	NA	NA	< 0.0069 J	< 0.007 J	< 0.032 J	< 0.017 J	< 0.32 J	< 0.064 J	< 0.0067 J	< 0.037 J	< 0.0069 J	< 0.0069 J	< 0.34 J	< 0.0064 J	< 0.0069 J	< 0.063 J
8081A	Heptachlor	76-44-8	MG/KG	0.11	0.43	1	< 0.0055 J	< 0.0056 J	< 0.026 J	< 0.014 J	< 0.26 J	< 0.052 J	< 0.0054 J	**0.14 J**	< 0.0055 J	< 0.0056 J	< 0.27 J	< 0.0052 J	< 0.0055 J	< 0.051 J
8081A	Heptachlor epoxide	1024-57-3	MG/KG	0.053	0.21	0.03	< 0.011 J	< 0.011 J	< 0.051 J	< 0.028 J	< 0.51 J	< 0.1 J	< 0.011 J	< 0.059 J	< 0.011 J	< 0.011 J	< 0.54 J	< 0.01 J	< 0.011 J	< 0.1 J
8081A	Methoxychlor	72-43-5	MG/KG	310	3400	8	0.039 J	0.51 J	< 0.054 J	0.81 J	29 J	< 0.11 J	< 0.011 J	< 0.062 J	< 0.012 J	< 0.012 J	1.3 J	0.2 J	< 0.012 J	5.2 J
8081A	Toxaphene	8001-35-2	MG/KG	0.44	1.7	2	< 0.41 J	< 0.41 J	< 1.9 J	< 1 J	< 19 J	< 3.8 J	< 0.4 J	< 2.2 J	< 0.41 J	< 0.41 J	< 20 J	< 0.38 J	< 0.41 J	< 3.8 J
	Herbicides																			
8151A	Dinoseb	88-85-7	MG/KG	61	680	NA	**110**	1.8	3.1	0.0095 J	**160**	**130**	< 0.0024	**520**	0.99	0.057 J	**600**	0.0048 J	< 0.0024	**260**
	Volatile Organic Compounds (VOCs)																			
8260B	1,1,1-Trichloroethane	71-55-6	MG/KG	1400	1400	0.1	--	--	< 0.0044	< 13	--	--	--	--	--	--	--	--	--	--
8260B	1,1,2,2-Tetrachloroethane	79-34-5	MG/KG	0.38	0.97	0.0002	--	--	< 0.018	< 18	--	--	--	--	--	--	--	--	--	--
8260B	1,1,2-Trichloroethane	79-00-5	MG/KG	0.84	2.1	0.0009	--	--	< 0.003	< 15	--	--	--	--	--	--	--	--	--	--
8260B	1,1-Dichloroethane	75-34-3	MG/KG	850	2300	1	--	--	< 0.0036	< 14	--	--	--	--	--	--	--	--	--	--
8260B	1,1-Dichloroethene	75-35-4	MG/KG	280	470	0.003	--	--	< 0.0049	< 15	--	--	--	--	--	--	--	--	--	--
8260B	1,2-Dibromoethane (EDB)	106-93-4	MG/KG	0.028	0.07	NA	--	--	< 0.0043	< 16	--	--	--	--	--	--	--	--	--	--

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Spring 2008
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Residential Soil (mg/kg)	Industrial Outdoor Worker Soil (mg/kg)	DAF1 (mg/kg)	DPT-18(4-6') 3/28/2008	DPT-19(2-4') 3/28/2008	DPT-2 (0-4') 3/26/2008	DPT-2 (12-16') 3/26/2008	DPT-20(2-4') 3/28/2008	DPT-21(2-4') 3/28/2008	DPT-21(8-10') 3/28/2008	DPT-22(2-4') 3/28/2008	DPT-22(8-10') 3/28/2008	DPT-23(14-16') 3/28/2008	DPT-23(2-4') 3/28/2008	DPT-24(2-4') 3/29/2008	DPT-24(8-10') 3/29/2008	DPT-25(2-4') 3/29/2008
8260B	1,2-Dichlorobenzene	95-50-1	MG/KG	280	370	0.9	--	--	0.66	16 J	--	--	--	--	--	--	--	--	--	--
8260B	1,2-Dichloroethane	107-06-2	MG/KG	0.35	0.84	0.001	--	--	0.0068 J	< 16	--	--	--	--	--	--	--	--	--	--
8260B	1,2-Dichloroethene (total)	540-59-0	MG/KG	NA	NA	NA	--	--	< 0.0068	< 27	--	--	--	--	--	--	--	--	--	--
8260B	1,2-Dichloropropane	78-87-5	MG/KG	0.35	0.85	0.001	--	--	< 0.0039	< 16	--	--	--	--	--	--	--	--	--	--
8260B	1,3-Dichlorobenzene	541-73-1	MG/KG	69	140	NA	--	--	< 0.0049	< 14	--	--	--	--	--	--	--	--	--	--
8260B	1,4-Dichlorobenzene	106-46-7	MG/KG	3.2	8.1	0.1	--	--	< 0.0064	< 14	--	--	--	--	--	--	--	--	--	--
8260B	2-Butanone (MEK)	78-93-3	MG/KG	32000	34000	NA	--	--	0.14	< 28 J	--	--	--	--	--	--	--	--	--	--
8260B	2-Chloroethyl vinyl ether	110-75-8	MG/KG	NA	NA	NA	--	--	< 0.0032	< 17	--	--	--	--	--	--	--	--	--	--
8260B	2-Hexanone	591-78-6	MG/KG	NA	NA	NA	--	--	< 0.017	< 17	--	--	--	--	--	--	--	--	--	--
8260B	4-Methyl-2-pentanone (MIBK)	108-10-1	MG/KG	5800	17000	NA	--	--	0.11	< 18	--	--	--	--	--	--	--	--	--	--
8260B	Acetone	67-64-1	MG/KG	14000	60000	0.8	--	--	0.16 J	< 29	--	--	--	--	--	--	--	--	--	--
8260B	Benzene	71-43-2	MG/KG	0.66	1.6	0.002	--	--	< 0.0038	< 16	--	--	--	--	--	--	--	--	--	--
8260B	Bromobenzene	108-86-1	MG/KG	73	120	NA	--	--	< 0.0034	< 15	--	--	--	--	--	--	--	--	--	--
8260B	Bromochloromethane	74-97-5	MG/KG	NA	NA	NA	--	--	< 0.0046	< 13	--	--	--	--	--	--	--	--	--	--
8260B	Bromodichloromethane	75-27-4	MG/KG	1	2.6	0.03	--	--	< 0.0036	< 17	--	--	--	--	--	--	--	--	--	--
8260B	Bromoform	75-25-2	MG/KG	62	240	0.04	--	--	< 0.0064	< 24	--	--	--	--	--	--	--	--	--	--
8260B	Bromomethane	74-83-9	MG/KG	3.9	15	0.01	--	--	< 0.0038	< 14	--	--	--	--	--	--	--	--	--	--
8260B	Carbon disulfide	75-15-0	MG/KG	720	720	2	--	--	< 0.0047	< 13	--	--	--	--	--	--	--	--	--	--
8260B	Carbon tetrachloride	56-23-5	MG/KG	0.24	0.58	0.003	--	--	< 0.0065	< 14	--	--	--	--	--	--	--	--	--	--
8260B	Chlorobenzene	108-90-7	MG/KG	270	500	0.07	--	--	< 0.0033	< 14	--	--	--	--	--	--	--	--	--	--
8260B	Chloroethane	75-00-3	MG/KG	3	7.2	NA	--	--	< 0.004	< 14	--	--	--	--	--	--	--	--	--	--
8260B	Chloroform	67-66-3	MG/KG	0.25	0.58	0.03	--	--	0.021 J	< 13	--	--	--	--	--	--	--	--	--	--
8260B	Chloromethane	74-87-3	MG/KG	1.3	3	NA	--	--	< 0.0036	< 15	--	--	--	--	--	--	--	--	--	--
8260B	cis-1,2-Dichloroethene	156-59-2	MG/KG	43	160	0.02	--	--	< 0.0036	< 14	--	--	--	--	--	--	--	--	--	--
8260B	cis-1,3-Dichloropropene	10061-01-5	MG/KG	0.7	1.8	0.0002	--	--	< 0.0033	< 15	--	--	--	--	--	--	--	--	--	--
8260B	Dibromochloromethane	124-48-1	MG/KG	1	2.6	0.02	--	--	< 0.0037	< 14	--	--	--	--	--	--	--	--	--	--
8260B	Dibromomethane	74-95-3	MG/KG	140	590	NA	--	--	< 0.0051	< 16	--	--	--	--	--	--	--	--	--	--
8260B	Ethylbenzene	100-41-4	MG/KG	230	230	0.7	--	--	0.14	< 14	--	--	--	--	--	--	--	--	--	--
8260B	Methylene chloride	75-09-2	MG/KG	8.9	22	0.001	--	--	0.015 J	< 15	--	--	--	--	--	--	--	--	--	--
8260B	m-Xylene & p-Xylene	136777-61-2	MG/KG	NA	NA	NA	--	--	0.47	< 26	--	--	--	--	--	--	--	--	--	--
8260B	o-Xylene	95-47-6	MG/KG	280	280	9	--	--	0.27	< 14	--	--	--	--	--	--	--	--	--	--
8260B	Styrene	100-42-5	MG/KG	1700	1700	0.2	--	--	< 0.003	< 14	--	--	--	--	--	--	--	--	--	--
8260B	Tetrachloroethene	127-18-4	MG/KG	0.55	1.7	0.003	--	--	< 0.009	< 15	--	--	--	--	--	--	--	--	--	--
8260B	Toluene	108-88-3	MG/KG	520	520	0.6	--	--	15	360	--	--	--	--	--	--	--	--	--	--
8260B	trans-1,2-Dichloroethene	156-60-5	MG/KG	120	200	0.03	--	--	< 0.004	< 13	--	--	--	--	--	--	--	--	--	--
8260B	trans-1,3-Dichloropropene	10061-02-6	MG/KG	0.7	1.8	0.0002	--	--	< 0.0037	< 14	--	--	--	--	--	--	--	--	--	--
8260B	Trichloroethene	79-01-6	MG/KG	0.043	0.1	0.003	--	--	< 0.0054	< 14	--	--	--	--	--	--	--	--	--	--
8260B	Trichlorofluoromethane	75-69-4	MG/KG	390	1400	NA	--	--	< 0.0059	< 14	--	--	--	--	--	--	--	--	--	--
8260B	Vinyl acetate	108-05-4	MG/KG	430	1600	8	--	--	< 0.0061	< 21	--	--	--	--	--	--	--	--	--	--
8260B	Vinyl chloride	75-01-4	MG/KG	0.043	0.86	0.0007	--	--	< 0.0044	< 15	--	--	--	--	--	--	--	--	--	--
8260B	Xylenes (total)	1330-20-7	MG/KG	210	210	10	--	--	0.74	< 39	--	--	--	--	--	--	--	--	--	--
	Semivolatile Organic Compounds (SVOCs)																			
8270C	1,2,4-Trichlorobenzene	120-82-1	MG/KG	140	260	0.3	--	--	< 0.27	< 0.059	--	--	--	--	--	--	--	--	--	--
8270C	1,2-Dichlorobenzene	95-50-1	MG/KG	280	370	0.9	--	--	1.2 J	8.5 J	--	--	--	--	--	--	--	--	--	--
8270C	1,3-Dichlorobenzene	541-73-1	MG/KG	69	140	NA	--	--	< 0.21	< 0.045	--	--	--	--	--	--	--	--	--	--
8270C	1,4-Dichlorobenzene	106-46-7	MG/KG	3.2	8.1	0.1	--	--	< 0.18	0.11 J	--	--	--	--	--	--	--	--	--	--
8270C	2,4,5-Trichlorophenol	95-95-4	MG/KG	6100	68000	14	--	--	< 0.21	< 0.045	--	--	--	--	--	--	--	--	--	--
8270C	2,4,6-Trichlorophenol	88-06-2	MG/KG	44	170	0.008	--	--	< 0.26	< 0.058	--	--	--	--	--	--	--	--	--	--
8270C	2,4-Dichlorophenol	120-83-2	MG/KG	180	2100	0.05	--	--	< 0.26	< 0.057	--	--	--	--	--	--	--	--	--	--
8270C	2,4-Dimethylphenol	105-67-9	MG/KG	1200	14000	0.4	--	--	< 0.47	< 0.1	--	--	--	--	--	--	--	--	--	--
8270C	2,4-Dinitrophenol	51-28-5	MG/KG	120	1400	0.01	--	--	< 1.1	< 0.24	--	--	--	--	--	--	--	--	--	--
8270C	2,4-Dinitrotoluene	121-14-2	MG/KG	120	1400	0.00004	--	--	< 0.95	< 0.21	--	--	--	--	--	--	--	--	--	--
8270C	2,6-Dinitrotoluene	606-20-2	MG/KG	61	680	0.00003	--	--	< 0.25	< 0.054	--	--	--	--	--	--	--	--	--	--
8270C	2-Chloronaphthalene	91-58-7	MG/KG	3900	26000	NA	--	--	< 0.19	< 0.041	--	--	--	--	--	--	--	--	--	--
8270C	2-Chlorophenol	95-57-8	MG/KG	64	260	0.2	--	--	< 0.18	< 0.038	--	--	--	--	--	--	--	--	--	--
8270C	2-Methylnaphthalene	91-57-6	MG/KG	NA	NA	NA	--	--	< 0.19	< 0.042	--	--	--	--	--	--	--	--	--	--

Table 2
DPT Soil Sampling Analytical Results
Spring 2008
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Residential Soil (mg/kg)	Industrial Outdoor Worker Soil (mg/kg)	DAF1 (mg/kg)	DPT-18(4-6') 3/28/2008	DPT-19(2-4') 3/28/2008	DPT-2 (0-4') 3/26/2008	DPT-2 (12-16') 3/26/2008	DPT-20(2-4') 3/28/2008	DPT-21(2-4') 3/28/2008	DPT-21(8-10') 3/28/2008	DPT-22(2-4') 3/28/2008	DPT-22(8-10') 3/28/2008	DPT-23(14-16') 3/28/2008	DPT-23(2-4') 3/28/2008	DPT-24(2-4') 3/29/2008	DPT-24(8-10') 3/29/2008	DPT-25(2-4') 3/29/2008
8270C	2-Methylphenol	95-48-7	MG/KG	3100	34000	0.8	--	--	< 0.24	0.56	--	--	--	--	--	--	--	--	--	--
8270C	2-Nitroaniline	88-74-4	MG/KG	180	2000	NA	--	--	< 0.26	< 0.056	--	--	--	--	--	--	--	--	--	--
8270C	2-Nitrophenol	88-75-5	MG/KG	NA	NA	NA	--	--	< 0.38	< 0.083	--	--	--	--	--	--	--	--	--	--
8270C	3,3'-Dichlorobenzidine	91-94-1	MG/KG	1.1	4.3	0.0003	--	--	< 0.14	< 0.031	--	--	--	--	--	--	--	--	--	--
8270C	3,4-Dichloroaniline	95-76-1	MG/KG	NA	NA	NA	--	--	260	74	--	--	--	--	--	--	--	--	--	--
8270C	3-Methylphenol & 4-Methylphenol	65794-96-9	MG/KG	310	3400	NA	--	--	< 0.39	0.54	--	--	--	--	--	--	--	--	--	--
8270C	3-Nitroaniline	99-09-2	MG/KG	NA	NA	NA	--	--	< 0.19	< 0.042	--	--	--	--	--	--	--	--	--	--
8270C	4,6-Dinitro-2-methylphenol	534-52-1	MG/KG	NA	NA	NA	--	--	< 0.85	< 0.19	--	--	--	--	--	--	--	--	--	--
8270C	4-Bromophenyl phenyl ether	101-55-3	MG/KG	NA	NA	NA	--	--	< 0.18	< 0.04	--	--	--	--	--	--	--	--	--	--
8270C	4-Chloro-3-methylphenol	59-50-7	MG/KG	NA	NA	NA	--	--	< 0.32	< 0.069	--	--	--	--	--	--	--	--	--	--
8270C	4-Chloroaniline	106-47-8	MG/KG	240	2700	0.03	--	--	< 0.23	2.3	--	--	--	--	--	--	--	--	--	--
8270C	4-Chlorophenyl phenyl ether	7005-72-3	MG/KG	NA	NA	NA	--	--	< 0.15	< 0.034	--	--	--	--	--	--	--	--	--	--
8270C	4-Nitroaniline	100-01-6	MG/KG	NA	NA	NA	--	--	< 0.6	< 0.13	--	--	--	--	--	--	--	--	--	--
8270C	4-Nitrophenol	100-02-7	MG/KG	490	5500	NA	--	--	< 0.91	< 0.2	--	--	--	--	--	--	--	--	--	--
8270C	Acenaphthene	83-32-9	MG/KG	3700	33000	29	--	--	< 0.21	< 0.046	--	--	--	--	--	--	--	--	--	--
8270C	Acenaphthylene	208-96-8	MG/KG	NA	NA	NA	--	--	< 0.2	< 0.043	--	--	--	--	--	--	--	--	--	--
8270C	Aniline	62-53-3	MG/KG	85	340	NA	--	--	< 0.19	< 0.041	--	--	--	--	--	--	--	--	--	--
8270C	Anthracene	120-12-7	MG/KG	22000	100000	590	--	--	< 0.15	< 0.032	--	--	--	--	--	--	--	--	--	--
8270C	Benzo(a)anthracene	56-55-3	MG/KG	0.15	2.3	0.08	--	--	< 0.12	< 0.026	--	--	--	--	--	--	--	--	--	--
8270C	Benzo(a)pyrene	50-32-8	MG/KG	0.015	0.23	0.4	--	--	< 0.14	< 0.03	--	--	--	--	--	--	--	--	--	--
8270C	Benzo(b)fluoranthene	205-99-2	MG/KG	0.15	2.3	0.2	--	--	< 0.31	< 0.068	--	--	--	--	--	--	--	--	--	--
8270C	Benzo(ghi)perylene	191-24-2	MG/KG	NA	NA	NA	--	--	< 0.16	< 0.035	--	--	--	--	--	--	--	--	--	--
8270C	Benzo(k)fluoranthene	207-08-9	MG/KG	1.5	23	2	--	--	< 0.24	< 0.052	--	--	--	--	--	--	--	--	--	--
8270C	Benzoic acid	65-85-0	MG/KG	100000	100000	20	--	--	< 0.7	< 0.15	--	--	--	--	--	--	--	--	--	--
8270C	Benzyl alcohol	100-51-6	MG/KG	18000	100000	NA	--	--	< 0.5	< 0.11	--	--	--	--	--	--	--	--	--	--
8270C	bis(2-Chloroethoxy)methane	111-91-1	MG/KG	NA	NA	NA	--	--	< 0.2	< 0.043	--	--	--	--	--	--	--	--	--	--
8270C	bis(2-Chloroethyl) ether	111-44-4	MG/KG	0.21	0.62	0.00002	--	--	< 0.21	< 0.045	--	--	--	--	--	--	--	--	--	--
8270C	bis(2-Chloroisopropyl) ether	108-60-1	MG/KG	2.9	8.2	NA	--	--	< 0.16	< 0.036	--	--	--	--	--	--	--	--	--	--
8270C	bis(2-Ethylhexyl) phthalate	117-81-7	MG/KG	35	140	180	--	--	0.43 J	0.15 J	--	--	--	--	--	--	--	--	--	--
8270C	Butyl benzyl phthalate	85-68-7	MG/KG	240	240	810	--	--	< 0.16	< 0.034	--	--	--	--	--	--	--	--	--	--
8270C	Chrysene	218-01-9	MG/KG	15	230	8	--	--	< 0.14	< 0.03	--	--	--	--	--	--	--	--	--	--
8270C	Dibenz(a,h)anthracene	53-70-3	MG/KG	0.015	0.23	0.08	--	--	< 0.51	< 0.11	--	--	--	--	--	--	--	--	--	--
8270C	Dibenzofuran	132-64-9	MG/KG	150	1700	NA	--	--	< 0.22	< 0.047	--	--	--	--	--	--	--	--	--	--
8270C	Diethyl phthalate	84-66-2	MG/KG	49000	100000	NA	--	--	< 0.13	< 0.028	--	--	--	--	--	--	--	--	--	--
8270C	Dimethyl phthalate	131-11-3	MG/KG	100000	100000	NA	--	--	< 0.14	< 0.031	--	--	--	--	--	--	--	--	--	--
8270C	Di-n-butyl phthalate	84-74-2	MG/KG	6100	68000	270	--	--	< 0.15	< 0.032	--	--	--	--	--	--	--	--	--	--
8270C	Di-n-octyl phthalate	117-84-0	MG/KG	NA	NA	10000	--	--	1.1 J	< 0.16	--	--	--	--	--	--	--	--	--	--
8270C	Dinoseb	88-85-7	MG/KG	61	680	NA	--	--	25	< 0.017	--	--	--	--	--	--	--	--	--	--
8270C	Fluoranthene	206-44-0	MG/KG	2300	24000	210	--	--	< 0.15	< 0.032	--	--	--	--	--	--	--	--	--	--
8270C	Fluorene	86-73-7	MG/KG	2600	26000	28	--	--	< 0.14	< 0.03	--	--	--	--	--	--	--	--	--	--
8270C	Hexachlorobenzene	118-74-1	MG/KG	0.3	1.2	0.1	--	--	0.23 J	< 0.037	--	--	--	--	--	--	--	--	--	--
8270C	Hexachlorobutadiene	87-68-3	MG/KG	6.2	25	0.1	--	--	< 0.24	< 0.053	--	--	--	--	--	--	--	--	--	--
8270C	Hexachlorocyclopentadiene	77-47-4	MG/KG	370	4100	20	--	--	< 1	< 0.22	--	--	--	--	--	--	--	--	--	--
8270C	Hexachloroethane	67-72-1	MG/KG	35	140	0.02	--	--	< 0.26	< 0.056	--	--	--	--	--	--	--	--	--	--
8270C	Indeno(1,2,3-cd)pyrene	193-39-5	MG/KG	0.15	2.3	0.7	--	--	< 0.31	< 0.068	--	--	--	--	--	--	--	--	--	--
8270C	Isophorone	78-59-1	MG/KG	510	2000	0.03	--	--	0.9 J	2.2	--	--	--	--	--	--	--	--	--	--
8270C	Naphthalene	91-20-3	MG/KG	120	210	4	--	--	< 0.19	< 0.042	--	--	--	--	--	--	--	--	--	--
8270C	Nitrobenzene	98-95-3	MG/KG	20	110	0.007	--	--	< 0.3	< 0.064	--	--	--	--	--	--	--	--	--	--
8270C	N-Nitrosodi-n-propylamine	621-64-7	MG/KG	0.07	0.27	0.000002	--	--	< 0.15	< 0.032	--	--	--	--	--	--	--	--	--	--
8270C	N-Nitrosodiphenylamine	86-30-6	MG/KG	99	390	0.06	--	--	< 0.14	< 0.03	--	--	--	--	--	--	--	--	--	--
8270C	Pentachlorophenol	87-86-5	MG/KG	3	10	0.001	--	--	< 0.3	< 0.066	--	--	--	--	--	--	--	--	--	--
8270C	Phenanthrene	85-01-8	MG/KG	NA	NA	NA	--	--	< 0.13	< 0.029	--	--	--	--	--	--	--	--	--	--
8270C	Phenol	108-95-2	MG/KG	18000	100000	5	--	--	< 0.2	< 0.043	--	--	--	--	--	--	--	--	--	--
8270C	Propanil	709-98-8	MG/KG	310	3400	NA	--	--	240	21	--	--	--	--	--	--	--	--	--	--
8270C	Pyrene	129-00-0	MG/KG	2300	32000	210	--	--	< 0.14	< 0.031	--	--	--	--	--	--	--	--	--	--

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Spring 2008
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Residential Soil (mg/kg)	Industrial Outdoor Worker Soil (mg/kg)	DAF1 (mg/kg)	DPT-25(6-8') 3/29/2008	DPT-26(2-4') 3/29/2008	DPT-26(4-6') 3/29/2008	DPT-27(0-2') 3/29/2008	DPT-27(8-10') 3/29/2008	DPT-28(8-12') 3/29/2008	DPT-29(4-8') 3/29/2008	DPT-3 (0-4') 3/26/2008	DPT-3 (16-20') 3/26/2008	DPT-30(0-4') 3/29/2008	DPT-31(8-12') 3/29/2008	DPT-32(12-16') 3/29/2008	DPT-33 TW-7(8-12') 3/29/2008	DPT-34(4-8') 3/29/2008	DPT-35(12-16') 3/30/2008
	Metals																				
6020	Aluminum	7429-90-5	MG/KG	76000	100000	NA	--	--	--	--	--	12200	15500	15700	7370	11700	13800	13800	13400	18400	11200
6020	Antimony	7440-36-0	MG/KG	31	450	0.3	--	--	--	--	--	0.2	0.18	0.24	0.24	0.37	0.32	0.32	0.23	0.18	0.14
6020	Arsenic	7440-38-2	MG/KG	0.39	1.8	1	--	--	--	--	--	**9.3**	**8.1**	**78.7**	**8.3**	**32.3**	**8.4**	**9.6**	**6.7**	**5.2**	**8.5**
6020	Barium	7440-39-3	MG/KG	16000	100000	82	--	--	--	--	--	230	214	118	98.5	123	214	220	263	124	183
6020	Beryllium	7440-41-7	MG/KG	150	2200	3	--	--	--	--	--	0.45	0.64	0.54	0.44	0.47	0.6	0.6	0.56	0.51	0.39
6020	Cadmium	7440-43-9	MG/KG	39	560	0.4	--	--	--	--	--	0.12	0.22	0.081	0.25	0.35	0.27	0.31	0.19	0.074	0.094
6020	Calcium	7440-70-2	MG/KG	NA	NA	NA	--	--	--	--	--	3310	1970	2700	2620	20100	1970	2770	2090	2340	2170
6020	Chromium	7440-47-3	MG/KG	210	500	2	--	--	--	--	--	17.3 JH	17.3	17.1 JH	12.5 JH	28.3	16.2	16.9	15.8	19.5	16.4
6020	Cobalt	7440-48-4	MG/KG	900	2100	NA	--	--	--	--	--	6.7	9.1	8.2	7.6	6.7	8	8.6	7.5	7.7	5
6020	Copper	7440-50-8	MG/KG	2900	42000	NA	--	--	--	--	--	17.1	16	15	13.5	12.8	14.4	15.1	12.8	12.9	13.3
6020	Iron	7439-89-6	MG/KG	55000	100000	NA	--	--	--	--	--	22700	21600	20600	16600	16900	19300	22100	18400	19300	20500
6020	Lead	7439-92-1	MG/KG	400	800	NA	--	--	--	--	--	12.1	12.7	10.4	10.3	10.2	11.7	11.9	10.4	10.7	10.1
6020	Magnesium	7439-95-4	MG/KG	NA	NA	NA	--	--	--	--	--	2450	3110	2240	2450	7030	2940	3150	2670	2510	2270
6020	Manganese	7439-96-5	MG/KG	3200	35000	NA	--	--	--	--	--	529	883	616	503	420	870	845	712	481	402
6020	Nickel	7440-02-0	MG/KG	1600	23000	7	--	--	--	--	--	18.7 JH	20.7	19.1	19.7	18	19	20.5	17.8	19.4	15.5
6020	Potassium	9/7/7440	MG/KG	NA	NA	NA	--	--	--	--	--	1310	1650 JH	1230 JH	1000 JH	1480 JH	1630 JH	1750 JH	1460 JH	2050 JH	1390 JH
6020	Selenium	7782-49-2	MG/KG	390	5700	0.3	--	--	--	--	--	0.14	0.35	< 0.14	< 0.15	0.34	0.32	0.2	0.15	0.26	0.14
6020	Silver	7440-22-4	MG/KG	390	5700	2	--	--	--	--	--	< 0.022	< 0.024	0.12	< 0.024	< 0.021	0.026	< 0.022	< 0.019	< 0.021	< 0.022
6020	Sodium	7440-23-5	MG/KG	NA	NA	NA	--	--	--	--	--	3620	128	174	183	145	228	150	269	57.3 J	323
6020	Thallium	7440-28-0	MG/KG	5.5	80	0.4	--	--	--	--	--	0.35	0.37	0.27	0.25	0.26	0.35	0.37	0.31	0.29	0.28
6020	Vanadium	7440-62-2	MG/KG	390	5700	300	--	--	--	--	--	35.1	38.1	30.5	24.4	30.5	35.8	38.3	33.8	34.2	33.5
6020	Zinc	7440-66-6	MG/KG	23000	100000	620	--	--	--	--	--	74.5	70.9	51.7	49.2	66.2	68.8	67.3	60.5	60.6	55.5
7471A	Mercury	7439-97-6	MG/KG	NA	NA	0.1	--	--	--	--	--	0.013 J	0.03 J	0.017 J	0.021 J	0.028 J	0.036 J	0.023 J	0.034 J	0.015 J	0.0083 J
	Organochlorine Pesticides																				
8081A	4,4'-DDD	72-54-8	MG/KG	2.4	11	0.8	< 0.014 J	< 0.25 J	< 0.032 J	< 0.14 J	< 0.014 J	< 0.073 J	< 0.014 J	< 0.033 J	< 0.036 J	< 0.67 J	< 0.018 J	< 0.014 J	< 0.014 J	< 0.028 J	< 0.028 J
8081A	4,4'-DDE	72-55-9	MG/KG	1.7	7.8	3	< 0.0059 J	< 0.11 J	0.054 J	0.077 J	< 0.006 J	< 0.032 J	< 0.0061 J	< 0.015 J	< 0.016 J	< 0.29 J	< 0.0076 J	< 0.0061 J	< 0.0061 J	< 0.012 J	< 0.012 J
8081A	4,4'-DDT	50-29-3	MG/KG	1.7	7.8	2	< 0.015 J	< 0.27 J	0.35 J	< 0.15 J	< 0.015 J	< 0.078 J	< 0.015 J	< 0.036 J	< 0.039 J	< 0.73 J	< 0.019 J	< 0.015 J	< 0.015 J	< 0.03 J	< 0.03 J
8081A	Aldrin	309-00-2	MG/KG	0.029	0.11	0.02	< 0.0063 J	**1 J**	< 0.015 J	< 0.066 J	< 0.0063 J	< 0.033 J	< 0.0065 J	< 0.015 J	< 0.017 J	< 0.31 J	< 0.008 J	< 0.0064 J	< 0.0065 J	< 0.013 J	< 0.013 J
8081A	alpha-BHC	319-84-6	MG/KG	0.09	0.4	0.00003	< 0.0053 J	< 0.099 J	< 0.013 J	< 0.056 J	< 0.0054 J	< 0.028 J	< 0.0055 J	< 0.013 J	< 0.014 J	< 0.26 J	< 0.0069 J	< 0.0055 J	< 0.0055 J	< 0.011 J	< 0.011 J
8081A	alpha-Chlordane	5103-71-9	MG/KG	NA	NA	NA	< 0.0081 J	< 0.15 J	< 0.019 J	< 0.084 J	< 0.0082 J	< 0.043 J	< 0.0083 J	< 0.02 J	< 0.022 J	2.2 J	< 0.01 J	< 0.0082 J	< 0.0083 J	< 0.016 J	< 0.016 J
8081A	beta-BHC	319-85-7	MG/KG	0.32	1.4	0.0001	< 0.0071 J	< 0.13 J	< 0.017 J	< 0.075 J	< 0.0072 J	< 0.038 J	< 0.0074 J	< 0.017 J	< 0.019 J	< 0.35 J	< 0.0092 J	< 0.0073 J	< 0.0074 J	< 0.015 J	< 0.015 J
8081A	Chlordane (technical)	57-74-9	MG/KG	1.6	7.2	0.5	< 0.19 J	< 3.6 J	< 0.46 J	< 2 J	< 0.2 J	< 1 J	< 0.2 J	< 0.48 J	< 0.52 J	**23 J**	< 0.25 J	< 0.2 J	< 0.2 J	< 0.4 J	< 0.4 J
8081A	delta-BHC	319-86-8	MG/KG	NA	NA	NA	< 0.0041 J	< 0.077 J	< 0.0097 J	< 0.043 J	< 0.0042 J	< 0.022 J	< 0.0043 J	< 0.01 J	< 0.011 J	< 0.2 J	< 0.0053 J	< 0.0042 J	< 0.0043 J	< 0.0085 J	< 0.0085 J
8081A	Dieldrin	60-57-1	MG/KG	0.03	0.12	0.0002	0.013 J	**15 J**	**0.84 J**	**8.2 J**	< 0.0053 J	< 0.028 J	< 0.0054 J	< 0.013 J	< 0.014 J	< 0.26 J	< 0.0067 J	< 0.0054 J	< 0.0054 J	< 0.011 J	< 0.011 J
8081A	Endosulfan I	959-98-8	MG/KG	NA	NA	NA	< 0.0044 J	< 0.081 J	< 0.01 J	< 0.046 J	< 0.0044 J	< 0.023 J	< 0.0045 J	< 0.011 J	< 0.012 J	< 0.22 J	< 0.0056 J	< 0.0045 J	< 0.0045 J	< 0.009 J	< 0.009 J
8081A	Endosulfan II	33213-65-9	MG/KG	NA	NA	NA	< 0.0072 J	< 0.13 J	< 0.017 J	< 0.075 J	< 0.0072 J	< 0.038 J	< 0.0074 J	< 0.018 J	< 0.019 J	< 0.35 J	< 0.0092 J	< 0.0073 J	< 0.0074 J	< 0.015 J	< 0.015 J
8081A	Endosulfan sulfate	1031-07-8	MG/KG	NA	NA	NA	< 0.0069 J	< 0.13 J	< 0.016 J	< 0.072 J	< 0.007 J	< 0.037 J	< 0.0071 J	< 0.017 J	< 0.018 J	< 0.34 J	< 0.0088 J	< 0.007 J	< 0.0071 J	< 0.014 J	< 0.014 J
8081A	Endrin	72-20-8	MG/KG	18	210	0.05	< 0.0076 J	0.18 J	0.023 J	< 0.08 J	< 0.0077 J	< 0.041 J	< 0.0079 J	< 0.019 J	< 0.02 J	< 0.38 J	< 0.0098 J	< 0.0078 J	< 0.0079 J	< 0.016 J	< 0.016 J
8081A	Endrin aldehyde	7421-93-4	MG/KG	NA	NA	NA	< 0.0053 J	< 0.099 J	0.19 J	0.3 J	< 0.0054 J	< 0.028 J	< 0.0055 J	< 0.013 J	< 0.014 J	< 0.26 J	< 0.0068 J	< 0.0054 J	< 0.0055 J	< 0.011 J	< 0.011 J
8081A	Endrin ketone	53494-70-5	MG/KG	NA	NA	NA	< 0.0053 J	0.26 J	< 0.012 J	0.13 J	< 0.0054 J	< 0.028 J	< 0.0055 J	< 0.013 J	< 0.014 J	< 0.26 J	< 0.0068 J	< 0.0054 J	< 0.0055 J	< 0.011 J	< 0.011 J
8081A	gamma-BHC (Lindane)	58-89-9	MG/KG	0.44	1.9	0.0005	< 0.0036 J	< 0.066 J	< 0.0084 J	< 0.037 J	< 0.0036 J	< 0.019 J	< 0.0037 J	< 0.0087 J	< 0.0096 J	< 0.18 J	< 0.0046 J	< 0.0036 J	< 0.0037 J	< 0.0073 J	< 0.0073 J
8081A	gamma-Chlordane	5103-74-2	MG/KG	NA	NA	NA	< 0.0066 J	< 0.12 J	< 0.016 J	< 0.07 J	< 0.0067 J	< 0.035 J	< 0.0069 J	< 0.016 J	< 0.018 J	2.9 J	< 0.0085 J	< 0.0068 J	< 0.0068 J	< 0.014 J	< 0.014 J
8081A	Heptachlor	76-44-8	MG/KG	0.11	0.43	1	< 0.0053 J	< 0.099 J	< 0.013 J	< 0.056 J	< 0.0054 J	< 0.028 J	< 0.0055 J	< 0.013 J	< 0.014 J	< 0.26 J	< 0.0069 J	< 0.0055 J	< 0.0055 J	< 0.011 J	< 0.011 J
8081A	Heptachlor epoxide	1024-57-3	MG/KG	0.053	0.21	0.03	< 0.011 J	< 0.2 J	< 0.025 J	< 0.11 J	< 0.011 J	< 0.057 J	< 0.011 J	< 0.026 J	< 0.028 J	< 0.53 J	< 0.014 J	< 0.011 J	< 0.011 J	< 0.022 J	< 0.022 J
8081A	Methoxychlor	72-43-5	MG/KG	310	3400	8	0.026 J	8.1 J	0.97 J	0.56 J	< 0.011 J	< 0.06 J	< 0.012 J	< 0.028 J	< 0.03 J	21 J	< 0.014 J	< 0.011 J	< 0.012 J	0.14 J	< 0.023 J
8081A	Toxaphene	8001-35-2	MG/KG	0.44	1.7	2	< 0.39 J	< 7.3 J	< 0.93 J	< 4.1 J	< 0.4 J	< 2.1 J	< 0.41 J	< 0.97 J	< 1.1 J	< 20 J	< 0.51 J	< 0.4 J	< 0.41 J	< 0.81 J	< 0.81 J
	Herbicides																				
8151A	Dinoseb	88-85-7	MG/KG	61	680	NA	0.038	**120**	**500**	**950**	0.17	**73**	0.0082 J	< 0.0023	< 0.0025	2	0.017	0.045	0.0085 J	0.46	45
	Volatile Organic Compounds (VOCs)																				
8260B	1,1,1-Trichloroethane	71-55-6	MG/KG	1400	1400	0.1	--	--	--	--	--	< 0.53 J	< 0.00098	< 0.0047	< 0.13	< 0.0019	< 0.00098	< 0.00097	< 0.00099	< 0.00097	< 0.002
8260B	1,1,2,2-Tetrachloroethane	79-34-5	MG/KG	0.38	0.97	0.0002	--	--	--	--	--	< 0.74 J	< 0.0041	< 0.019	< 0.18	< 0.0079	< 0.004	< 0.004	< 0.0041	< 0.004	< 0.0081
8260B	1,1,2-Trichloroethane	79-00-5	MG/KG	0.84	2.1	0.0009	--	--	--	--	--	< 0.59 J	< 0.00067	< 0.0032	< 0.15	< 0.0013	< 0.00067	< 0.00066	< 0.00067	< 0.00066	< 0.0013
8260B	1,1-Dichloroethane	75-34-3	MG/KG	850	2300	1	--	--	--	--	--	< 0.57 J	< 0.0008	< 0.0038	< 0.14	< 0.0015	< 0.00079	< 0.00079	< 0.0008	< 0.00079	< 0.0016
8260B	1,1-Dichloroethene	75-35-4	MG/KG	280	470	0.003	--	--	--	--	--	< 0.59 J	< 0.0011	< 0.0052	< 0.15	< 0.0021	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0022
8260B	1,2-Dibromoethane (EDB)	106-93-4	MG/KG	0.028	0.07	NA	--	--	--	--	--	< 0.65 J	< 0.00097	< 0.0046	< 0.16	< 0.0019	< 0.00096	< 0.00095	< 0.00097	< 0.00096	< 0.0019

Table 2
DPT Soil Sampling Analytical Results
Spring 2008
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Residential Soil (mg/kg)	Industrial Outdoor Worker Soil (mg/kg)	DAF1 (mg/kg)	DPT-25(6-8') 3/29/2008	DPT-26(2-4') 3/29/2008	DPT-26(4-6') 3/29/2008	DPT-27(0-2') 3/29/2008	DPT-27(8-10') 3/29/2008	DPT-28(8-12') 3/29/2008	DPT-29(4-8') 3/29/2008	DPT-3 (0-4') 3/26/2008	DPT-3 (16-20') 3/26/2008	DPT-30(0-4') 3/29/2008	DPT-31(8-12') 3/29/2008	DPT-32(12-16') 3/29/2008	DPT-33 TW-7(8-12') 3/29/2008	DPT-34(4-8') 3/29/2008	DPT-35(12-16') 3/30/2008
8260B	1,2-Dichlorobenzene	95-50-1	MG/KG	280	370	0.9	--	--	--	--	--	< 0.6 J	0.022	0.057	0.33	0.37	0.016	< 0.0022	0.014	0.16	0.099
8260B	1,2-Dichloroethane	107-06-2	MG/KG	0.35	0.84	0.001	--	--	--	--	--	< 0.63 J	< 0.00098	0.03	< 0.16	< 0.0019	0.0065	< 0.00097	0.0026 J	< 0.00097	0.0056 J
8260B	1,2-Dichloroethene (total)	540-59-0	MG/KG	NA	NA	NA	--	--	--	--	--	< 1.1 J	< 0.0015	0.012 J	< 0.27	< 0.003	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.003
8260B	1,2-Dichloropropane	78-87-5	MG/KG	0.35	0.85	0.001	--	--	--	--	--	< 0.67 J	< 0.00087	< 0.0041	< 0.17	< 0.0017	< 0.00086	< 0.00086	< 0.00088	< 0.00086	< 0.0017
8260B	1,3-Dichlorobenzene	541-73-1	MG/KG	69	140	NA	--	--	--	--	--	< 0.55 J	< 0.0011	0.041	0.19 J	< 0.0021	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0022
8260B	1,4-Dichlorobenzene	106-46-7	MG/KG	3.2	8.1	0.1	--	--	--	--	--	< 0.57 J	< 0.0014	0.043	0.23 J	0.0044 J	< 0.0014	< 0.0014	< 0.0014	0.0025 J	< 0.0029
8260B	2-Butanone (MEK)	78-93-3	MG/KG	32000	34000	NA	--	--	--	--	--	33 J	0.0079 J	0.016 J	< 0.29 J	0.02 J	0.016	0.071	0.054	0.055	0.84
8260B	2-Chloroethyl vinyl ether	110-75-8	MG/KG	NA	NA	NA	--	--	--	--	--	< 0.67 J	< 0.00072	< 0.0034	< 0.17	< 0.0014	< 0.00072	< 0.00071	< 0.00072	< 0.00071	< 0.0014
8260B	2-Hexanone	591-78-6	MG/KG	NA	NA	NA	--	--	--	--	--	< 0.69 J	< 0.0038	< 0.018	< 0.17	< 0.0074	< 0.0038	< 0.0037	< 0.0038	< 0.0038	< 0.0075
8260B	4-Methyl-2-pentanone (MIBK)	108-10-1	MG/KG	5800	17000	NA	--	--	--	--	--	< 0.74 J	< 0.0022	< 0.01	< 0.19	< 0.0042	0.56	0.92	0.9	0.017	< 0.0043
8260B	Acetone	67-64-1	MG/KG	14000	60000	0.8	--	--	--	--	--	4.6 J	0.064 UB	0.30 UB	< 0.3	0.12 UB	11	87	100	0.063 UB	0.13 UB
8260B	Benzene	71-43-2	MG/KG	0.66	1.6	0.002	--	--	--	--	--	< 0.63 J	< 0.00086	< 0.0041	< 0.16	< 0.0017	< 0.00085	< 0.00084	< 0.00086	< 0.00085	< 0.0017
8260B	Bromobenzene	108-86-1	MG/KG	73	120	NA	--	--	--	--	--	< 0.6 J	< 0.00075	< 0.0035	< 0.15	< 0.0015	< 0.00074	< 0.00074	< 0.00075	< 0.00074	< 0.0015
8260B	Bromochloromethane	74-97-5	MG/KG	NA	NA	NA	--	--	--	--	--	< 0.53 J	< 0.001	< 0.0048	< 0.13	< 0.002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.002
8260B	Bromodichloromethane	75-27-4	MG/KG	1	2.6	0.03	--	--	--	--	--	< 0.68 J	< 0.00079	< 0.0038	< 0.17	< 0.0015	< 0.00079	< 0.00078	< 0.0008	< 0.00078	< 0.0016
8260B	Bromoform	75-25-2	MG/KG	62	240	0.04	--	--	--	--	--	< 0.98 J	< 0.0014	< 0.0068	< 0.25	< 0.0028	< 0.0014	< 0.0014	< 0.0014	< 0.0014	< 0.0028
8260B	Bromomethane	74-83-9	MG/KG	3.9	15	0.01	--	--	--	--	--	< 0.57 J	< 0.00084	< 0.004	< 0.14	< 0.0016	< 0.00083	< 0.00083	< 0.00084	< 0.00083	< 0.0017
8260B	Carbon disulfide	75-15-0	MG/KG	720	720	2	--	--	--	--	--	< 0.54 J	< 0.0011	< 0.005	< 0.13	< 0.002	< 0.001	< 0.001	< 0.0011	< 0.001	< 0.0021
8260B	Carbon tetrachloride	56-23-5	MG/KG	0.24	0.58	0.003	--	--	--	--	--	< 0.58 J	< 0.0015	< 0.0069	< 0.15	< 0.0028	< 0.0014	< 0.0014	< 0.0015	< 0.0014	< 0.0029
8260B	Chlorobenzene	108-90-7	MG/KG	270	500	0.07	--	--	--	--	--	< 0.56 J	< 0.00074	0.012 J	< 0.14	< 0.0014	< 0.00074	< 0.00073	< 0.00075	0.004 J	< 0.0015
8260B	Chloroethane	75-00-3	MG/KG	3	7.2	NA	--	--	--	--	--	< 0.57 J	< 0.00089	< 0.0042	< 0.14	< 0.0017	< 0.00088	< 0.00088	< 0.0009	< 0.00088	< 0.0018
8260B	Chloroform	67-66-3	MG/KG	0.25	0.58	0.03	--	--	--	--	--	< 0.53 J	< 0.00093	< 0.0044	< 0.13	< 0.0018	< 0.00093	< 0.00092	< 0.00094	< 0.00092	0.0023 J
8260B	Chloromethane	74-87-3	MG/KG	1.3	3	NA	--	--	--	--	--	< 0.61 J	< 0.00079	< 0.0038	< 0.15	< 0.0015	< 0.00079	< 0.00078	< 0.0008	< 0.00079	< 0.0016
8260B	cis-1,2-Dichloroethene	156-59-2	MG/KG	43	160	0.02	--	--	--	--	--	< 0.55 J	< 0.00081	0.012 J	< 0.14	< 0.0016	< 0.00081	< 0.0008	< 0.00082	< 0.0008	< 0.0016
8260B	cis-1,3-Dichloropropene	10061-01-5	MG/KG	0.7	1.8	0.0002	--	--	--	--	--	< 0.62 J	< 0.00074	< 0.0035	< 0.15	< 0.0014	< 0.00074	< 0.00073	< 0.00075	< 0.00073	< 0.0015
8260B	Dibromochloromethane	124-48-1	MG/KG	1	2.6	0.02	--	--	--	--	--	< 0.57 J	< 0.00083	< 0.004	< 0.14	< 0.0016	< 0.00083	< 0.00082	< 0.00084	< 0.00082	< 0.0017
8260B	Dibromomethane	74-95-3	MG/KG	140	590	NA	--	--	--	--	--	< 0.65 J	< 0.0011	< 0.0054	< 0.16	< 0.0022	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0022
8260B	Ethylbenzene	100-41-4	MG/KG	230	230	0.7	--	--	--	--	--	< 0.58 J	< 0.0011	0.008 J	< 0.14	0.097	< 0.0011	< 0.0011	< 0.0011	0.0014 J	0.0029 J
8260B	Methylene chloride	75-09-2	MG/KG	8.9	22	0.001	--	--	--	--	--	< 0.59 J	0.011	< 0.0055	< 0.15	0.012	0.015	0.0068	0.013	0.0069	0.012 J
8260B	m-Xylene & p-Xylene	136777-61-2	MG/KG	NA	NA	NA	--	--	--	--	--	< 1.1 J	< 0.002	0.014 J	< 0.26	0.34	0.0027 J	< 0.002	< 0.002	0.0075 J	0.014 J
8260B	o-Xylene	95-47-6	MG/KG	280	280	9	--	--	--	--	--	< 0.55 J	< 0.00073	< 0.0035	< 0.14	0.11	0.0019 J	< 0.00072	< 0.00073	0.0061 J	0.0044 J
8260B	Styrene	100-42-5	MG/KG	1700	1700	0.2	--	--	--	--	--	< 0.56 J	< 0.00068	< 0.0032	< 0.14	< 0.0013	< 0.00067	< 0.00067	< 0.00068	< 0.00067	< 0.0013
8260B	Tetrachloroethene	127-18-4	MG/KG	0.55	1.7	0.003	--	--	--	--	--	< 0.61 J	< 0.002	0.46	**2.5**	< 0.0039	< 0.002	< 0.002	< 0.002	< 0.002	< 0.004
8260B	Toluene	108-88-3	MG/KG	520	520	0.6	--	--	--	--	--	< 0.53 J	0.0033 J	0.0095 J	< 0.13	0.072	0.0051 J	< 0.001	0.006 J	0.0025 J	0.45
8260B	trans-1,2-Dichloroethene	156-60-5	MG/KG	120	200	0.03	--	--	--	--	--	< 0.54 J	< 0.00088	< 0.0042	< 0.14	< 0.0017	< 0.00088	< 0.00087	< 0.00089	< 0.00087	< 0.0018
8260B	trans-1,3-Dichloropropene	10061-02-6	MG/KG	0.7	1.8	0.0002	--	--	--	--	--	< 0.56 J	< 0.00081	< 0.0039	< 0.14	< 0.0016	< 0.00081	< 0.0008	< 0.00082	< 0.00081	< 0.0016
8260B	Trichloroethene	79-01-6	MG/KG	0.043	0.1	0.003	--	--	--	--	--	< 0.58 J	< 0.0012	0.0069 J	< 0.15	< 0.0023	< 0.0012	< 0.0012	< 0.0012	< 0.0012	< 0.0024
8260B	Trichlorofluoromethane	75-69-4	MG/KG	390	1400	NA	--	--	--	--	--	< 0.56 J	< 0.0013	< 0.0063	< 0.14	< 0.0026	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0026
8260B	Vinyl acetate	108-05-4	MG/KG	430	1600	8	--	--	--	--	--	< 0.85 J	< 0.0014	< 0.0065	< 0.21	< 0.0027	< 0.0014	< 0.0013	< 0.0014	< 0.0013	< 0.0027
8260B	Vinyl chloride	75-01-4	MG/KG	0.043	0.86	0.0007	--	--	--	--	--	< 0.59 J	< 0.00098	< 0.0046	< 0.15	< 0.0019	< 0.00097	< 0.00097	< 0.00099	< 0.00097	< 0.0019
8260B	Xylenes (total)	1330-20-7	MG/KG	210	210	10	--	--	--	--	--	< 1.6 J	< 0.0027	0.014 J	< 0.4	0.45	0.0045 J	< 0.0027	< 0.0027	0.014 J	0.018 J
	Semivolatile Organic Compounds (SVOCs)																				
8270C	1,2,4-Trichlorobenzene	120-82-1	MG/KG	140	260	0.3	--	--	--	--	--	< 0.3	< 0.058	< 0.055	< 0.06	< 0.28	< 0.058	< 0.057	< 0.058	< 0.057	< 0.29
8270C	1,2-Dichlorobenzene	95-50-1	MG/KG	280	370	0.9	--	--	--	--	--	< 0.26	< 0.051	< 0.048	0.12 J	1.4 J	< 0.051	< 0.05	< 0.051	0.055 J	< 0.25
8270C	1,3-Dichlorobenzene	541-73-1	MG/KG	69	140	NA	--	--	--	--	--	< 0.23	< 0.044	< 0.042	0.078 J	< 0.21	< 0.044	< 0.044	< 0.044	< 0.044	< 0.22
8270C	1,4-Dichlorobenzene	106-46-7	MG/KG	3.2	8.1	0.1	--	--	--	--	--	< 0.2	< 0.039	< 0.037	0.087 J	< 0.18	< 0.038	< 0.038	< 0.038	< 0.038	< 0.19
8270C	2,4,5-Trichlorophenol	95-95-4	MG/KG	6100	68000	14	--	--	--	--	--	< 0.23	< 0.044	< 0.042	< 0.046	< 0.21	< 0.044	< 0.044	< 0.044	< 0.044	< 0.22
8270C	2,4,6-Trichlorophenol	88-06-2	MG/KG	44	170	0.008	--	--	--	--	--	< 0.29	< 0.057	< 0.054	< 0.059	< 0.27	< 0.056	< 0.056	< 0.056	< 0.056	< 0.28
8270C	2,4-Dichlorophenol	120-83-2	MG/KG	180	2100	0.05	--	--	--	--	--	< 0.29	< 0.056	< 0.053	< 0.058	< 0.27	< 0.056	< 0.055	< 0.056	< 0.055	< 0.28
8270C	2,4-Dimethylphenol	105-67-9	MG/KG	1200	14000	0.4	--	--	--	--	--	< 0.52	< 0.1	< 0.096	< 0.11	< 0.49	< 0.1	< 0.1	< 0.1	< 0.1	< 0.5
8270C	2,4-Dinitrophenol	51-28-5	MG/KG	120	1400	0.01	--	--	--	--	--	12	< 0.23	< 0.22	< 0.24	< 1.1	< 0.23	< 0.23	< 0.23	< 0.23	9.6 J
8270C	2,4-Dinitrotoluene	121-14-2	MG/KG	120	1400	0.00004	--	--	--	--	--	< 1	< 0.2	< 0.19	< 0.21	< 0.97	< 0.2	< 0.2	< 0.2	< 0.2	< 1
8270C	2,6-Dinitrotoluene	606-20-2	MG/KG	61	680	0.00003	--	--	--	--	--	< 0.27	< 0.053	< 0.05	< 0.055	< 0.25	< 0.053	< 0.052	< 0.053	< 0.052	< 0.26
8270C	2-Chloronaphthalene	91-58-7	MG/KG	3900	26000	NA	--	--	--	--	--	< 0.21	< 0.04	< 0.038	< 0.042	< 0.19	< 0.04	< 0.04	< 0.04	< 0.04	< 0.2
8270C	2-Chlorophenol	95-57-8	MG/KG	64	260	0.2	--	--	--	--	--	< 0.19	< 0.038	< 0.036	< 0.039	< 0.18	< 0.037	< 0.037	< 0.037	< 0.037	< 0.19
8270C	2-Methylnaphthalene	91-57-6	MG/KG	NA	NA	NA	--	--	--	--	--	< 0.21	< 0.041	< 0.039	< 0.043	0.49 J	< 0.041	< 0.041	< 0.041	< 0.041	< 0.2

Table 2
DPT Soil Sampling Analytical Results
Spring 2008
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Residential Soil (mg/kg)	Industrial Outdoor Worker Soil (mg/kg)	DAF1 (mg/kg)	DPT-25(6-8') 3/29/2008	DPT-26(2-4') 3/29/2008	DPT-26(4-6') 3/29/2008	DPT-27(0-2') 3/29/2008	DPT-27(8-10') 3/29/2008	DPT-28(8-12') 3/29/2008	DPT-29(4-8') 3/29/2008	DPT-3 (0-4') 3/26/2008	DPT-3 (16-20') 3/26/2008	DPT-30(0-4') 3/29/2008	DPT-31(8-12') 3/29/2008	DPT-32(12-16') 3/29/2008	DPT-33 TW-7(8-12') 3/29/2008	DPT-34(4-8') 3/29/2008	DPT-35(12-16') 3/30/2008
8270C	2-Methylphenol	95-48-7	MG/KG	3100	34000	0.8	--	--	--	--	--	< 0.26	< 0.051	< 0.049	< 0.053	< 0.25	< 0.051	< 0.051	< 0.051	< 0.051	< 0.25
8270C	2-Nitroaniline	88-74-4	MG/KG	180	2000	NA	--	--	--	--	--	< 0.28	< 0.055	< 0.052	< 0.057	< 0.26	< 0.054	< 0.054	< 0.055	< 0.054	< 0.27
8270C	2-Nitrophenol	88-75-5	MG/KG	NA	NA	NA	--	--	--	--	--	< 0.42	< 0.081	< 0.077	< 0.084	< 0.39	< 0.081	< 0.08	< 0.081	< 0.08	< 0.4
8270C	3,3'-Dichlorobenzidine	91-94-1	MG/KG	1.1	4.3	0.0003	--	--	--	--	--	< 0.16	< 0.031	< 0.029	< 0.032	< 0.15	< 0.031	< 0.03	< 0.031	< 0.03	< 0.15
8270C	3,4-Dichloroaniline	95-76-1	MG/KG	NA	NA	NA	--	--	--	--	--	< 0.2	0.083 J	< 0.037	0.058 J	140	< 0.039	0.32 J	0.072 J	1	< 0.19
8270C	3-Methylphenol & 4-Methylphenol	65794-96-9	MG/KG	310	3400	NA	--	--	--	--	--	< 0.43	< 0.084	< 0.079	< 0.087	< 0.4	< 0.083	< 0.083	< 0.083	< 0.083	< 0.41
8270C	3-Nitroaniline	99-09-2	MG/KG	NA	NA	NA	--	--	--	--	--	< 0.21	< 0.041	< 0.039	< 0.043	< 0.2	< 0.041	< 0.041	< 0.041	< 0.041	< 0.2
8270C	4,6-Dinitro-2-methylphenol	534-52-1	MG/KG	NA	NA	NA	--	--	--	--	--	1.3 J	< 0.18	< 0.17 J	< 0.19	< 0.87	< 0.18	< 0.18	< 0.18	< 0.18	1.4 J
8270C	4-Bromophenyl phenyl ether	101-55-3	MG/KG	NA	NA	NA	--	--	--	--	--	< 0.2	< 0.039	< 0.037	< 0.04	< 0.19	< 0.039	< 0.038	< 0.039	< 0.039	< 0.19
8270C	4-Chloro-3-methylphenol	59-50-7	MG/KG	NA	NA	NA	--	--	--	--	--	< 0.35	< 0.068	< 0.064	< 0.07	< 0.33	< 0.068	< 0.067	< 0.068	< 0.067	< 0.34
8270C	4-Chloroaniline	106-47-8	MG/KG	240	2700	0.03	--	--	--	--	--	< 0.25	< 0.048	< 0.046	< 0.05	< 0.23	< 0.048	0.16 J	< 0.048	< 0.048	< 0.24
8270C	4-Chlorophenyl phenyl ether	7005-72-3	MG/KG	NA	NA	NA	--	--	--	--	--	< 0.17	< 0.033	< 0.031	< 0.034	< 0.16	< 0.033	< 0.033	< 0.033	< 0.033	< 0.16
8270C	4-Nitroaniline	100-01-6	MG/KG	NA	NA	NA	--	--	--	--	--	< 0.66	< 0.13	< 0.12	< 0.13	< 0.62	< 0.13	< 0.13	< 0.13	< 0.13	< 0.64
8270C	4-Nitrophenol	100-02-7	MG/KG	490	5500	NA	--	--	--	--	--	< 1	< 0.19	< 0.18	< 0.2	< 0.93	< 0.19	< 0.19	< 0.19	< 0.19	< 0.96
8270C	Acenaphthene	83-32-9	MG/KG	3700	33000	29	--	--	--	--	--	< 0.23	< 0.045	< 0.042	< 0.046	< 0.21	< 0.044	< 0.044	< 0.045	< 0.044	< 0.22
8270C	Acenaphthylene	208-96-8	MG/KG	NA	NA	NA	--	--	--	--	--	< 0.22	< 0.042	< 0.04	< 0.044	< 0.2	< 0.042	< 0.042	< 0.042	< 0.042	< 0.21
8270C	Aniline	62-53-3	MG/KG	85	340	NA	--	--	--	--	--	< 0.21	< 0.041	< 0.039	< 0.042	< 0.19	< 0.04	< 0.04	< 0.041	< 0.04	< 0.2
8270C	Anthracene	120-12-7	MG/KG	22000	100000	590	--	--	--	--	--	< 0.16	< 0.032	< 0.03	< 0.033	< 0.15	< 0.032	< 0.031	< 0.032	< 0.031	< 0.16
8270C	Benzo(a)anthracene	56-55-3	MG/KG	0.15	2.3	0.08	--	--	--	--	--	< 0.13	< 0.026	< 0.024	< 0.027	< 0.12	< 0.025	< 0.025	< 0.026	< 0.025	< 0.13
8270C	Benzo(a)pyrene	50-32-8	MG/KG	0.015	0.23	0.4	--	--	--	--	--	< 0.15	< 0.029	< 0.028	< 0.03	< 0.14	< 0.029	< 0.029	< 0.029	< 0.029	< 0.14
8270C	Benzo(b)fluoranthene	205-99-2	MG/KG	0.15	2.3	0.2	--	--	--	--	--	< 0.35	< 0.067	< 0.064	< 0.07	< 0.32	< 0.067	< 0.066	< 0.067	< 0.067	< 0.33
8270C	Benzo(ghi)perylene	191-24-2	MG/KG	NA	NA	NA	--	--	--	--	--	< 0.18	< 0.035	< 0.033	< 0.036	< 0.17	< 0.034	< 0.034	< 0.034	< 0.034	< 0.17
8270C	Benzo(k)fluoranthene	207-08-9	MG/KG	1.5	23	2	--	--	--	--	--	< 0.26	< 0.051	< 0.049	< 0.053	< 0.25	< 0.051	< 0.051	< 0.051	< 0.051	< 0.25
8270C	Benzoic acid	65-85-0	MG/KG	100000	100000	20	--	--	--	--	--	< 0.77	< 0.15	< 0.14	< 0.15	< 0.71	< 0.15	< 0.15	< 0.15	< 0.15	< 0.74
8270C	Benzyl alcohol	100-51-6	MG/KG	18000	100000	NA	--	--	--	--	--	< 0.55	< 0.11	< 0.1	< 0.11	< 0.51	< 0.11	< 0.11	< 0.11	< 0.11	< 0.53
8270C	bis(2-Chloroethoxy)methane	111-91-1	MG/KG	NA	NA	NA	--	--	--	--	--	< 0.22	< 0.042	< 0.04	< 0.043	< 0.2	< 0.042	< 0.041	< 0.042	< 0.041	< 0.21
8270C	bis(2-Chloroethyl) ether	111-44-4	MG/KG	0.21	0.62	0.00002	--	--	--	--	--	< 0.23	< 0.044	< 0.042	< 0.046	< 0.21	< 0.044	< 0.044	< 0.044	< 0.044	< 0.22
8270C	bis(2-Chloroisopropyl) ether	108-60-1	MG/KG	2.9	8.2	NA	--	--	--	--	--	< 0.18	< 0.035	< 0.033	< 0.036	< 0.17	< 0.035	< 0.035	< 0.035	< 0.035	< 0.17
8270C	bis(2-Ethylhexyl) phthalate	117-81-7	MG/KG	35	140	180	--	--	--	--	--	< 0.28	0.11 J	0.082 J	0.076 J	0.45 J	0.09 J	0.095 J	0.1 J	0.11 J	< 0.27
8270C	Butyl benzyl phthalate	85-68-7	MG/KG	240	240	810	--	--	--	--	--	< 0.17	< 0.034	< 0.032	< 0.035	< 0.16	< 0.033	< 0.033	< 0.034	< 0.033	< 0.17
8270C	Chrysene	218-01-9	MG/KG	15	230	8	--	--	--	--	--	< 0.15	< 0.029	< 0.028	< 0.03	< 0.14	< 0.029	< 0.029	< 0.029	< 0.029	< 0.14
8270C	Dibenz(a,h)anthracene	53-70-3	MG/KG	0.015	0.23	0.08	--	--	--	--	--	< 0.56	< 0.11	< 0.1	< 0.11	< 0.52	< 0.11	< 0.11	< 0.11	< 0.11	< 0.53
8270C	Dibenzofuran	132-64-9	MG/KG	150	1700	NA	--	--	--	--	--	< 0.24	< 0.046	< 0.044	< 0.048	< 0.22	< 0.046	< 0.046	< 0.046	< 0.046	< 0.23
8270C	Diethyl phthalate	84-66-2	MG/KG	49000	100000	NA	--	--	--	--	--	< 0.14	< 0.028	< 0.026	< 0.029	< 0.13	< 0.028	< 0.027	< 0.028	< 0.027	< 0.14
8270C	Dimethyl phthalate	131-11-3	MG/KG	100000	100000	NA	--	--	--	--	--	< 0.16	< 0.031	< 0.029	< 0.032	< 0.15	< 0.031	< 0.03	< 0.031	< 0.03	< 0.15
8270C	Di-n-butyl phthalate	84-74-2	MG/KG	6100	68000	270	--	--	--	--	--	< 0.16	< 0.032	< 0.03	< 0.033	< 0.15	< 0.032	< 0.031	< 0.032	< 0.031	< 0.16
8270C	Di-n-octyl phthalate	117-84-0	MG/KG	NA	NA	10000	--	--	--	--	--	< 0.8	< 0.16	< 0.15	< 0.16	< 0.75	< 0.16	< 0.15	< 0.16	< 0.15	< 0.77
8270C	Dinoseb	88-85-7	MG/KG	61	680	NA	--	--	--	--	--	**1800**	13	< 0.016 J	< 0.018	5.7	19	< 0.017	9.2	5.1	**4900**
8270C	Fluoranthene	206-44-0	MG/KG	2300	24000	210	--	--	--	--	--	< 0.16	< 0.031	< 0.03	< 0.033	< 0.15	< 0.031	< 0.031	< 0.031	< 0.031	< 0.16
8270C	Fluorene	86-73-7	MG/KG	2600	26000	28	--	--	--	--	--	< 0.15	< 0.03	< 0.028	< 0.031	< 0.14	< 0.03	< 0.029	< 0.03	< 0.029	< 0.15
8270C	Hexachlorobenzene	118-74-1	MG/KG	0.3	1.2	0.1	--	--	--	--	--	< 0.19	< 0.036	< 0.034	< 0.037	< 0.17	< 0.036	< 0.036	< 0.036	< 0.036	< 0.18
8270C	Hexachlorobutadiene	87-68-3	MG/KG	6.2	25	0.1	--	--	--	--	--	< 0.27	< 0.052	< 0.05	< 0.054	< 0.25	< 0.052	< 0.052	< 0.052	< 0.052	< 0.26
8270C	Hexachlorocyclopentadiene	77-47-4	MG/KG	370	4100	20	--	--	--	--	--	< 1.1	< 0.22	< 0.21	< 0.23	< 1	< 0.22	< 0.22	< 0.22	< 0.22	< 1.1
8270C	Hexachloroethane	67-72-1	MG/KG	35	140	0.02	--	--	--	--	--	< 0.29	< 0.056	< 0.053	< 0.058	< 0.27	< 0.055	< 0.055	< 0.055	< 0.055	< 0.27
8270C	Indeno(1,2,3-cd)pyrene	193-39-5	MG/KG	0.15	2.3	0.7	--	--	--	--	--	< 0.34	< 0.066	< 0.063	< 0.069	< 0.32	< 0.066	< 0.066	< 0.066	< 0.066	< 0.33
8270C	Isophorone	78-59-1	MG/KG	510	2000	0.03	--	--	--	--	--	< 0.28	< 0.055	< 0.052	< 0.057	< 0.26	< 0.055	< 0.054	< 0.055	< 0.054	< 0.27
8270C	Naphthalene	91-20-3	MG/KG	120	210	4	--	--	--	--	--	< 0.21	< 0.041	< 0.039	< 0.042	0.2 J	< 0.041	< 0.04	< 0.041	< 0.041	< 0.2
8270C	Nitrobenzene	98-95-3	MG/KG	20	110	0.007	--	--	--	--	--	< 0.33	< 0.063	< 0.06	< 0.066	< 0.3	< 0.063	< 0.063	< 0.063	< 0.063	< 0.31
8270C	N-Nitrosodi-n-propylamine	621-64-7	MG/KG	0.07	0.27	0.000002	--	--	--	--	--	< 0.16	< 0.031	< 0.03	< 0.032	< 0.15	< 0.031	< 0.031	< 0.031	< 0.031	< 0.15
8270C	N-Nitrosodiphenylamine	86-30-6	MG/KG	99	390	0.06	--	--	--	--	--	< 0.15	< 0.029	< 0.028	< 0.03	< 0.14	< 0.029	< 0.029	< 0.029	< 0.029	< 0.14
8270C	Pentachlorophenol	87-86-5	MG/KG	3	10	0.001	--	--	--	--	--	< 0.34	< 0.065	< 0.062	< 0.067	< 0.31	< 0.065	< 0.064	< 0.065	< 0.064	< 0.32
8270C	Phenanthrene	85-01-8	MG/KG	NA	NA	NA	--	--	--	--	--	< 0.15	< 0.029	< 0.027	< 0.03	< 0.14	< 0.028	< 0.028	< 0.028	< 0.028	< 0.14
8270C	Phenol	108-95-2	MG/KG	18000	100000	5	--	--	--	--	--	< 0.22	< 0.042	< 0.04	< 0.044	< 0.2	< 0.042	< 0.042	< 0.042	< 0.042	< 0.21
8270C	Propanil	709-98-8	MG/KG	310	3400	NA	--	--	--	--	--	< 0.18	0.12 J	< 0.034	< 0.037	**890**	< 0.036	0.63	0.18 J	< 0.035	< 0.18
8270C	Pyrene	129-00-0	MG/KG	2300	32000	210	--	--	--	--	--	< 0.15	< 0.03	< 0.028	< 0.031	< 0.14	< 0.03	< 0.03	< 0.03	< 0.03	< 0.15

Table 2
DPT Soil Sampling Analytical Results
Spring 2008
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Residential Soil (mg/kg)	Industrial Outdoor Worker Soil (mg/kg)	DAF1 (mg/kg)	DPT-36(4-8') 3/30/2008	DPT-37(4-8') 3/30/2008	DPT-38(4-8') 3/30/2008	DPT-39(12-16') 3/30/2008	DPT-39(4-8') 3/30/2008	DPT-4 (0-4') 3/26/2008	DPT-40(0-4') 3/30/2008	DPT-5 (0-4') 3/26/2008	DPT-6 (0-4') 3/26/2008	DPT-7 (0-4') 3/27/2008	DPT-7 (12-16') 3/27/2008	DPT-8 (0-4') 3/27/2008	DPT-9 (0-4') 3/27/2008	DPT-9 (12-16') 3/27/2008
	Metals																			
6020	Aluminum	7429-90-5	MG/KG	76000	100000	NA	22200	17600	12000	10700	22300	9170	12400	15600	14600	11700	8770	13100	15200	8510
6020	Antimony	7440-36-0	MG/KG	31	450	0.3	0.17	0.13	0.26	0.64	0.15	0.23	0.18	0.28	0.36	0.27	0.29	0.19 UB	0.26	0.28
6020	Arsenic	7440-38-2	MG/KG	0.39	1.8	1	**8.9**	**5.5**	**8.6**	**5.3**	**8.6**	**4.7**	**7.7**	**6.5**	**6.7**	**6.4**	**8.7**	**4.9**	**7.1**	**8.6**
6020	Barium	7440-39-3	MG/KG	16000	100000	82	189	154	202	137	165	133	214	114	118	97.7	157	93.7	76.5	153
6020	Beryllium	7440-41-7	MG/KG	150	2200	3	0.77	0.62	0.61	0.5	0.8	0.38	0.59	0.48	0.6	0.44	0.46	0.4	0.52	0.42
6020	Cadmium	7440-43-9	MG/KG	39	560	0.4	0.082	0.081	0.31	0.56	0.067	0.12	0.12	0.067	0.077	0.14	0.35	0.09	0.095	0.39
6020	Calcium	7440-70-2	MG/KG	NA	NA	NA	1990	964	6220	73700	1430	10200	2470	2440	1950	10100	2580	2180	6510	2570
6020	Chromium	7440-47-3	MG/KG	210	500	2	23.1	19.4	18.9	18.5	21.5	11.5 JH	15.8	16.1 JH	15.3 JH	14.2 JH	13.4 JH	14.4 JH	15.8 JH	12.6 JH
6020	Cobalt	7440-48-4	MG/KG	900	2100	NA	8.1	7.9	10.3	6.9	7	5.7	6.6	7.1	7.5	7.2	7.9	6.1	7.7	8
6020	Copper	7440-50-8	MG/KG	2900	42000	NA	18.7	14.3	17.8	14.6	19.1	10	13.7	14	14.5	13.1	13.2	10.7	13.2	13
6020	Iron	7439-89-6	MG/KG	55000	100000	NA	24200	19000	21800	17100	25500	12800	19100	20400	19500	17900	19300	15900	20100	19000
6020	Lead	7439-92-1	MG/KG	400	800	NA	13.1	10	13.2	12.2	13.3	9.1	10.5	10.7	10.5	10.3	10.3	8.9	10.9	10.2
6020	Magnesium	7439-95-4	MG/KG	NA	NA	NA	2970	2390	5520	15400	3120	4100	2270	2630	2310	3530	2600	1740	2570	2530
6020	Manganese	7439-96-5	MG/KG	3200	35000	NA	607	673	669	363	486	483	548	562	568	546	841	502	596	841
6020	Nickel	7440-02-0	MG/KG	1600	23000	7	22.4	18.5	23.6	19	24.2	13.9	16.1	18.1	18.6	17.1	19.3	16.4	18.1	18.8
6020	Potassium	9/7/7440	MG/KG	NA	NA	NA	1720 JH	1470 JH	1620 JH	2110 JH	1870 JH	909 JH	1480 JH	1080 JH	1000 JH	1010 JH	1030 JH	1110 JH	1570 JH	1040 JH
6020	Selenium	7782-49-2	MG/KG	390	5700	0.3	0.46	0.34	0.43	0.57	0.14	< 0.14	0.26	< 0.12	< 0.14	< 0.13	< 0.15	0.24	0.24	< 0.13
6020	Silver	7440-22-4	MG/KG	390	5700	2	< 0.023	< 0.02	< 0.02	0.027	< 0.02	0.022	< 0.016	0.034	< 0.022	0.036	< 0.023	0.02	< 0.023	< 0.021
6020	Sodium	7440-23-5	MG/KG	NA	NA	NA	149	89.7 J	259	189	281	26.5 J	343	93.1 J	61.6 J	15.7 J	49.1 J	< 7.3	< 8.4	54.5 J
6020	Thallium	7440-28-0	MG/KG	5.5	80	0.4	0.39	0.31	0.37	0.25	0.4	0.19	0.3	0.27	0.28	0.26	0.28	0.2	0.26	0.28
6020	Vanadium	7440-62-2	MG/KG	390	5700	300	41.6	34.6	37.6	33.1	43	20	33.8	30.9	29.3	26.5	28.8	26.9	31.2	27.8
6020	Zinc	7440-66-6	MG/KG	23000	100000	620	67.7	52	66.4	82	72.3	44	57	50.5	48.8	49.8	54.9	41	48.2	54.4
7471A	Mercury	7439-97-6	MG/KG	NA	NA	0.1	0.027 J	0.017 J	0.023 J	0.018 J	0.014 J	0.018 J	0.021 J	0.014 J	0.016 J	0.022 J	0.026 J	0.016 J	0.0087 J	0.025 J
	Organochlorine Pesticides																			
8081A	4,4'-DDD	72-54-8	MG/KG	2.4	11	0.8	< 0.027 J	< 0.027 J	< 0.028 J	< 0.029 J	< 0.028 J	0.043 J	< 0.028 J	< 0.034 J	< 0.034 J	< 0.14 J	< 0.035 J	< 0.035 J	< 0.069 J	< 0.035 J
8081A	4,4'-DDE	72-55-9	MG/KG	1.7	7.8	3	< 0.012 J	< 0.012 J	< 0.012 J	< 0.013 J	< 0.012 J	0.036 J	< 0.012 J	0.019 J	0.034 J	< 0.06 J	< 0.015 J	0.03 J	< 0.03 J	< 0.015 J
8081A	4,4'-DDT	50-29-3	MG/KG	1.7	7.8	2	< 0.029 J	< 0.03 J	< 0.031 J	< 0.031 J	< 0.03 J	< 0.035 J	< 0.03 J	< 0.037 J	< 0.037 J	< 0.15 J	< 0.038 J	0.095 J	< 0.075 J	< 0.037 J
8081A	Aldrin	309-00-2	MG/KG	0.029	0.11	0.02	< 0.012 J	< 0.013 J	< 0.013 J	< 0.013 J	< 0.013 J	< 0.015 J	< 0.013 J	< 0.016 J	< 0.016 J	< 0.063 J	< 0.016 J	< 0.016 J	< 0.032 J	< 0.016 J
8081A	alpha-BHC	319-84-6	MG/KG	0.09	0.4	0.00003	< 0.01 J	< 0.011 J	< 0.011 J	< 0.011 J	< 0.011 J	< 0.013 J	< 0.011 J	< 0.013 J	< 0.013 J	< 0.054 J	< 0.014 J	< 0.014 J	< 0.027 J	< 0.014 J
8081A	alpha-Chlordane	5103-71-9	MG/KG	NA	NA	NA	< 0.016 J	< 0.016 J	< 0.017 J	< 0.017 J	< 0.016 J	< 0.019 J	< 0.016 J	< 0.02 J	< 0.02 J	< 0.081 J	< 0.021 J	< 0.021 J	< 0.041 J	< 0.02 J
8081A	beta-BHC	319-85-7	MG/KG	0.32	1.4	0.0001	< 0.014 J	< 0.014 J	< 0.015 J	< 0.015 J	< 0.015 J	0.023 J	< 0.014 J	< 0.018 J	< 0.018 J	< 0.072 J	< 0.018 J	< 0.018 J	< 0.036 J	< 0.018 J
8081A	Chlordane (technical)	57-74-9	MG/KG	1.6	7.2	0.5	< 0.38 J	< 0.39 J	< 0.4 J	< 0.41 J	< 0.4 J	< 0.46 J	< 0.39 J	< 0.49 J	< 0.49 J	< 2 J	< 0.5 J	< 0.5 J	< 0.99 J	< 0.49 J
8081A	delta-BHC	319-86-8	MG/KG	NA	NA	NA	< 0.0081 J	< 0.0083 J	< 0.0086 J	< 0.0087 J	< 0.0084 J	< 0.0099 J	< 0.0084 J	< 0.01 J	< 0.01 J	< 0.042 J	< 0.011 J	< 0.011 J	< 0.021 J	< 0.01 J
8081A	Dieldrin	60-57-1	MG/KG	0.03	0.12	0.0002	< 0.01 J	< 0.011 J	< 0.011 J	< 0.011 J	< 0.011 J	< 0.013 J	0.022 J	< 0.013 J	< 0.013 J	< 0.053 J	< 0.014 J	< 0.013 J	< 0.027 J	< 0.013 J
8081A	Endosulfan I	959-98-8	MG/KG	NA	NA	NA	< 0.0086 J	< 0.0088 J	< 0.0091 J	< 0.0093 J	< 0.009 J	< 0.01 J	< 0.0089 J	< 0.011 J	< 0.011 J	< 0.044 J	< 0.011 J	< 0.011 J	< 0.022 J	< 0.011 J
8081A	Endosulfan II	33213-65-9	MG/KG	NA	NA	NA	< 0.014 J	< 0.014 J	< 0.015 J	< 0.015 J	< 0.015 J	< 0.017 J	< 0.014 J	< 0.018 J	< 0.018 J	< 0.072 J	< 0.018 J	< 0.018 J	< 0.036 J	< 0.018 J
8081A	Endosulfan sulfate	1031-07-8	MG/KG	NA	NA	NA	< 0.014 J	< 0.014 J	< 0.014 J	< 0.015 J	< 0.014 J	< 0.016 J	< 0.014 J	< 0.017 J	< 0.017 J	< 0.07 J	< 0.018 J	< 0.018 J	< 0.035 J	< 0.017 J
8081A	Endrin	72-20-8	MG/KG	18	210	0.05	< 0.015 J	< 0.015 J	< 0.016 J	< 0.016 J	< 0.016 J	< 0.018 J	< 0.015 J	< 0.019 J	< 0.019 J	< 0.077 J	< 0.02 J	< 0.02 J	< 0.039 J	< 0.019 J
8081A	Endrin aldehyde	7421-93-4	MG/KG	NA	NA	NA	< 0.01 J	< 0.011 J	< 0.011 J	< 0.011 J	< 0.011 J	0.028 J	< 0.011 J	< 0.013 J	< 0.013 J	< 0.054 J	< 0.014 J	< 0.014 J	< 0.027 J	< 0.013 J
8081A	Endrin ketone	53494-70-5	MG/KG	NA	NA	NA	< 0.01 J	< 0.011 J	< 0.011 J	< 0.011 J	< 0.011 J	0.033 J	< 0.011 J	< 0.013 J	< 0.013 J	< 0.054 J	< 0.014 J	< 0.014 J	< 0.027 J	< 0.013 J
8081A	gamma-BHC (Lindane)	58-89-9	MG/KG	0.44	1.9	0.0005	< 0.007 J	< 0.0072 J	< 0.0074 J	< 0.0075 J	< 0.0073 J	< 0.0085 J	< 0.0072 J	< 0.009 J	< 0.009 J	< 0.036 J	< 0.0092 J	< 0.0091 J	< 0.018 J	< 0.009 J
8081A	gamma-Chlordane	5103-74-2	MG/KG	NA	NA	NA	< 0.013 J	< 0.013 J	< 0.014 J	< 0.014 J	< 0.014 J	< 0.016 J	< 0.013 J	< 0.017 J	< 0.017 J	< 0.067 J	< 0.017 J	< 0.017 J	< 0.034 J	< 0.017 J
8081A	Heptachlor	76-44-8	MG/KG	0.11	0.43	1	< 0.01 J	< 0.011 J	< 0.011 J	< 0.011 J	< 0.011 J	< 0.013 J	< 0.011 J	< 0.013 J	< 0.013 J	< 0.054 J	< 0.014 J	< 0.014 J	< 0.027 J	< 0.014 J
8081A	Heptachlor epoxide	1024-57-3	MG/KG	0.053	0.21	0.03	< 0.021 J	< 0.021 J	< 0.022 J	< 0.022 J	< 0.022 J	< 0.025 J	< 0.021 J	< 0.027 J	< 0.027 J	< 0.11 J	< 0.027 J	< 0.027 J	< 0.054 J	< 0.027 J
8081A	Methoxychlor	72-43-5	MG/KG	310	3400	8	< 0.022 J	< 0.023 J	< 0.023 J	< 0.024 J	< 0.023 J	0.52 J	0.085 J	0.038 J	0.093 J	4.5 J	< 0.029 J	0.03 J	< 0.057 J	< 0.028 J
8081A	Toxaphene	8001-35-2	MG/KG	0.44	1.7	2	< 0.77 J	< 0.79 J	< 0.82 J	< 0.83 J	< 0.8 J	< 0.94 J	< 0.8 J	< 0.99 J	< 0.99 J	< 4 J	< 1 J	< 1 J	< 2 J	< 1 J
	Herbicides																			
8151A	Dinoseb	88-85-7	MG/KG	61	680	NA	0.17	2.6	0.016 UB	0.016 UB	0.27	6.3	0.015 UB	0.65	< 0.0024	0.2	< 0.0024	31	4	0.011 J
	Volatile Organic Compounds (VOCs)																			
8260B	1,1,1-Trichloroethane	71-55-6	MG/KG	1400	1400	0.1	< 0.00094	< 0.00097	< 0.00099	< 0.13	< 0.00097	< 0.0018	< 0.00095	< 0.00096	< 0.00096	< 0.00096	< 0.0046	< 0.00098	< 0.00098	< 0.00096
8260B	1,1,2,2-Tetrachloroethane	79-34-5	MG/KG	0.38	0.97	0.0002	< 0.0039	< 0.004	< 0.0041	< 0.18	< 0.004	< 0.0076	< 0.0039	< 0.004	< 0.004	< 0.004	< 0.019	< 0.0041	< 0.004	< 0.004
8260B	1,1,2-Trichloroethane	79-00-5	MG/KG	0.84	2.1	0.0009	< 0.00064	< 0.00066	< 0.00068	< 0.15	< 0.00066	< 0.0012	< 0.00065	< 0.00065	0.00075 J	< 0.00065	< 0.0032	< 0.00067	< 0.00066	< 0.00066
8260B	1,1-Dichloroethane	75-34-3	MG/KG	850	2300	1	< 0.00076	< 0.00078	< 0.0008	< 0.14	< 0.00078	< 0.0015	< 0.00077	< 0.00078	< 0.00077	< 0.00078	< 0.0037	< 0.00079	< 0.00079	< 0.00078
8260B	1,1-Dichloroethene	75-35-4	MG/KG	280	470	0.003	< 0.001	< 0.0011	< 0.0011	< 0.15	< 0.0011	< 0.002	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0052	< 0.0011	< 0.0011	< 0.0011 J
8260B	1,2-Dibromoethane (EDB)	106-93-4	MG/KG	0.028	0.07	NA	< 0.00092	< 0.00095	< 0.00097	< 0.16	< 0.00095	< 0.0018	< 0.00094	< 0.00094	< 0.00094	< 0.00094	< 0.0046	< 0.00097	< 0.00096	< 0.00095

Table 2
DPT Soil Sampling Analytical Results
Spring 2008
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Residential Soil (mg/kg)	Industrial Outdoor Worker Soil (mg/kg)	DAF1 (mg/kg)	DPT-36(4-8') 3/30/2008	DPT-37(4-8') 3/30/2008	DPT-38(4-8') 3/30/2008	DPT-39(12-16') 3/30/2008	DPT-39(4-8') 3/30/2008	DPT-4 (0-4') 3/26/2008	DPT-40(0-4') 3/30/2008	DPT-5 (0-4') 3/26/2008	DPT-6 (0-4') 3/26/2008	DPT-7 (0-4') 3/27/2008	DPT-7 (12-16') 3/27/2008	DPT-8 (0-4') 3/27/2008	DPT-9 (0-4') 3/27/2008	DPT-9 (12-16') 3/27/2008
8260B	1,2-Dichlorobenzene	95-50-1	MG/KG	280	370	0.9	< 0.0021	0.033	0.008	0.33	0.76	0.44	0.13	0.01	0.0039 J	0.013	< 0.01	0.0085	0.027	0.0056 J
8260B	1,2-Dichloroethane	107-06-2	MG/KG	0.35	0.84	0.001	< 0.00093	< 0.00097	0.018	**8.4**	0.12	0.004 J	0.0086	0.041	0.21	0.01	**1**	0.0045 J	0.051	0.31
8260B	1,2-Dichloroethene (total)	540-59-0	MG/KG	NA	NA	NA	< 0.0014	< 0.0015	< 0.0015	< 0.27	< 0.0015	< 0.0028	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0072	< 0.0015	< 0.0015	0.0016 J
8260B	1,2-Dichloropropane	78-87-5	MG/KG	0.35	0.85	0.001	< 0.00083	< 0.00086	< 0.00088	< 0.17	< 0.00086	< 0.0016	< 0.00084	< 0.00085	< 0.00085	< 0.00085	< 0.0041	< 0.00087	< 0.00086	< 0.00085
8260B	1,3-Dichlorobenzene	541-73-1	MG/KG	69	140	NA	< 0.001	< 0.0011	< 0.0011	< 0.14	0.0013 J	< 0.002	0.0023 J	< 0.0011	< 0.0011	0.0015 J	< 0.0052	< 0.0011	< 0.0011	< 0.0011
8260B	1,4-Dichlorobenzene	106-46-7	MG/KG	3.2	8.1	0.1	< 0.0014	< 0.0014	< 0.0014	< 0.14	0.018	0.003 J	0.0054 J	< 0.0014	< 0.0014	< 0.0014	< 0.0068	< 0.0014	< 0.0014	< 0.0014
8260B	2-Butanone (MEK)	78-93-3	MG/KG	32000	34000	NA	0.013	0.023	0.0032 J	< 0.29	0.039	0.021 J	0.011 J	0.0091 J	< 0.0023	< 0.0023	< 0.011	< 0.0023	0.049	0.099
8260B	2-Chloroethyl vinyl ether	110-75-8	MG/KG	NA	NA	NA	< 0.00068	< 0.00071	< 0.00073	< 0.17	< 0.00071	< 0.0013	< 0.0007	< 0.0007	< 0.0007	< 0.0007	< 0.0034	< 0.00072	< 0.00071	< 0.00071
8260B	2-Hexanone	591-78-6	MG/KG	NA	NA	NA	< 0.0036	< 0.0037	< 0.0038	< 0.17	< 0.0037	< 0.007	< 0.0037	< 0.0037	< 0.0037	< 0.0037	< 0.018	< 0.0038	< 0.0038	< 0.0037
8260B	4-Methyl-2-pentanone (MIBK)	108-10-1	MG/KG	5800	17000	NA	< 0.002	< 0.0021	< 0.0022	< 0.19	0.039	< 0.004	< 0.0021	< 0.0021	< 0.0021	< 0.0021	< 0.01	< 0.0021	< 0.0021	< 0.0021
8260B	Acetone	67-64-1	MG/KG	14000	60000	0.8	0.061 UB	0.063 UB	0.064 UB	3.3 UB	0.063 UB	0.12 UB	0.062 UB	0.062 UB	0.062 UB	0.0042 J	< 0.01	0.005 J	0.063	0.25 J
8260B	Benzene	71-43-2	MG/KG	0.66	1.6	0.002	< 0.00081	< 0.00084	< 0.00086	< 0.16	< 0.00084	< 0.0016	< 0.00083	< 0.00084	< 0.00083	< 0.00084	< 0.004	< 0.00085	< 0.00085	< 0.00084
8260B	Bromobenzene	108-86-1	MG/KG	73	120	NA	< 0.00071	< 0.00073	< 0.00075	< 0.15	< 0.00074	< 0.0014	< 0.00072	< 0.00073	< 0.00073	< 0.00073	< 0.0035	< 0.00075	< 0.00074	< 0.00073
8260B	Bromochloromethane	74-97-5	MG/KG	NA	NA	NA	< 0.00097	< 0.001	< 0.001	< 0.13	< 0.001	< 0.0019	< 0.00098	< 0.00099	< 0.00099	< 0.00099	< 0.0048	< 0.001	< 0.001	< 0.001
8260B	Bromodichloromethane	75-27-4	MG/KG	1	2.6	0.03	< 0.00075	< 0.00078	< 0.0008	< 0.17	< 0.00078	< 0.0015	< 0.00077	< 0.00077	< 0.00077	< 0.00077	< 0.0037	< 0.00079	< 0.00078	< 0.00078
8260B	Bromoform	75-25-2	MG/KG	62	240	0.04	< 0.0014	< 0.0014	< 0.0014	< 0.24	< 0.0014	< 0.0027	< 0.0014	< 0.0014	< 0.0014	< 0.0014	< 0.0067	< 0.0014	< 0.0014	< 0.0014
8260B	Bromomethane	74-83-9	MG/KG	3.9	15	0.01	< 0.0008	< 0.00083	< 0.00084	< 0.14	< 0.00083	< 0.0016	< 0.00081	< 0.00082	< 0.00082	< 0.00082	< 0.004	< 0.00084	< 0.00083	< 0.00082
8260B	Carbon disulfide	75-15-0	MG/KG	720	720	2	< 0.001	< 0.001	< 0.0011	< 0.13	< 0.001	< 0.002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.005	< 0.0011	< 0.001	< 0.001
8260B	Carbon tetrachloride	56-23-5	MG/KG	0.24	0.58	0.003	< 0.0014	< 0.0014	< 0.0015	< 0.15	< 0.0014	< 0.0027	< 0.0014	< 0.0014	< 0.0014	< 0.0014	< 0.0069	< 0.0015	< 0.0014	< 0.0014
8260B	Chlorobenzene	108-90-7	MG/KG	270	500	0.07	< 0.00071	< 0.00073	< 0.00075	< 0.14	0.025	0.0044 J	0.12	0.0034 J	< 0.00072	< 0.00073	< 0.0035	< 0.00074	< 0.00074	< 0.00073
8260B	Chloroethane	75-00-3	MG/KG	3	7.2	NA	< 0.00085	< 0.00088	< 0.0009	< 0.14	< 0.00088	< 0.0017	< 0.00086	< 0.00087	< 0.00087	< 0.00087	< 0.0042	< 0.00089	< 0.00088	< 0.00087
8260B	Chloroform	67-66-3	MG/KG	0.25	0.58	0.03	< 0.00089	< 0.00092	< 0.00094	< 0.13	< 0.00092	< 0.0017	< 0.0009	< 0.00091	< 0.00091	0.00093 J	< 0.0044	< 0.00093	< 0.00092	< 0.00091
8260B	Chloromethane	74-87-3	MG/KG	1.3	3	NA	< 0.00075	< 0.00078	< 0.0008	< 0.15	< 0.00078	< 0.0015	< 0.00077	< 0.00078	< 0.00077	< 0.00078	< 0.0037	< 0.00079	< 0.00079	< 0.00078
8260B	cis-1,2-Dichloroethene	156-59-2	MG/KG	43	160	0.02	< 0.00077	< 0.0008	< 0.00082	< 0.14	< 0.0008	< 0.0015	< 0.00078	< 0.00079	< 0.00079	< 0.00079	< 0.0038	< 0.00081	< 0.0008	0.0016 J
8260B	cis-1,3-Dichloropropene	10061-01-5	MG/KG	0.7	1.8	0.0002	< 0.0007	< 0.00073	< 0.00075	< 0.15	< 0.00073	< 0.0014	< 0.00072	< 0.00072	< 0.00072	< 0.00072	< 0.0035	< 0.00074	< 0.00073	< 0.00073
8260B	Dibromochloromethane	124-48-1	MG/KG	1	2.6	0.02	< 0.00079	< 0.00082	< 0.00084	< 0.14	< 0.00082	< 0.0015	< 0.00081	< 0.00081	< 0.00081	< 0.00081	< 0.0039	< 0.00083	< 0.00083	< 0.00082
8260B	Dibromomethane	74-95-3	MG/KG	140	590	NA	< 0.0011	< 0.0011	< 0.0011	< 0.16	< 0.0011	< 0.0021	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0053	< 0.0011	< 0.0011	< 0.0011
8260B	Ethylbenzene	100-41-4	MG/KG	230	230	0.7	< 0.001	< 0.0011	< 0.0011	< 0.14	0.0045 J	< 0.002	< 0.0011	0.0042 J	< 0.0011	< 0.0011	< 0.0051	< 0.0011	< 0.0011	< 0.0011
8260B	Methylene chloride	75-09-2	MG/KG	8.9	22	0.001	0.0022 J	0.0064	0.0018 J	0.16 J	0.016	< 0.0021	0.0016 J	0.0012 J	< 0.0011	0.0013 J	0.0075 J	0.0034 J	0.0031 J	0.013
8260B	m-Xylene & p-Xylene	136777-61-2	MG/KG	NA	NA	NA	< 0.0019	< 0.002	< 0.002	< 0.26	0.022	< 0.0038	< 0.002	0.0072 J	< 0.002	0.0022 J	< 0.0096	0.0034 J	0.0026 J	< 0.002
8260B	o-Xylene	95-47-6	MG/KG	280	280	9	< 0.00069	< 0.00072	< 0.00073	< 0.14	0.01	0.0021 J	< 0.00071	0.0014 J	< 0.00071	0.0009 J	< 0.0034	0.0018 J	0.0029 J	0.0019 J
8260B	Styrene	100-42-5	MG/KG	1700	1700	0.2	< 0.00064	< 0.00067	< 0.00068	< 0.14	< 0.00067	< 0.0013	< 0.00066	< 0.00066	< 0.00066	< 0.00066	< 0.0032	< 0.00068	< 0.00067	< 0.00066
8260B	Tetrachloroethene	127-18-4	MG/KG	0.55	1.7	0.003	< 0.0019	< 0.002	< 0.002	< 0.15	< 0.002	0.0038 J	< 0.0019	< 0.002	< 0.002	0.0055 J	< 0.0095	0.0088	0.0021 J	0.0028 J
8260B	Toluene	108-88-3	MG/KG	520	520	0.6	0.0011 J	0.0021 J	< 0.001	0.89	0.01	0.0099 J	< 0.00099	0.05	0.012	0.036	0.0094 J	0.035	0.015	0.011
8260B	trans-1,2-Dichloroethene	156-60-5	MG/KG	120	200	0.03	< 0.00084	< 0.00087	< 0.00089	< 0.13	< 0.00087	< 0.0016	< 0.00086	< 0.00086	< 0.00086	< 0.00086	< 0.0042	< 0.00088	< 0.00088	< 0.00087
8260B	trans-1,3-Dichloropropene	10061-02-6	MG/KG	0.7	1.8	0.0002	< 0.00077	< 0.0008	< 0.00082	< 0.14	< 0.0008	< 0.0015	< 0.00079	< 0.0008	< 0.00079	< 0.0008	< 0.0038	< 0.00081	< 0.00081	< 0.0008
8260B	Trichloroethene	79-01-6	MG/KG	0.043	0.1	0.003	< 0.0011	< 0.0012	< 0.0012	< 0.14	< 0.0012	< 0.0022	< 0.0012	< 0.0012	< 0.0012	< 0.0012	< 0.0057	< 0.0012	< 0.0012	< 0.0012
8260B	Trichlorofluoromethane	75-69-4	MG/KG	390	1400	NA	< 0.0013	< 0.0013	< 0.0013	< 0.14 J	< 0.0013	< 0.0025	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0062	< 0.0013	< 0.0013	< 0.0013 J
8260B	Vinyl acetate	108-05-4	MG/KG	430	1600	8	< 0.0013	< 0.0013	< 0.0014	< 0.21	< 0.0013	< 0.0025	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0064	< 0.0014	< 0.0014	< 0.0013
8260B	Vinyl chloride	75-01-4	MG/KG	0.043	0.86	0.0007	< 0.00093	< 0.00096	< 0.00099	< 0.15	< 0.00097	< 0.0018	< 0.00095	< 0.00096	< 0.00095	< 0.00096	< 0.0046	< 0.00098	< 0.00097	< 0.00096
8260B	Xylenes (total)	1330-20-7	MG/KG	210	210	10	< 0.0026	< 0.0026	< 0.0027	< 0.4	0.033	0.0054 J	< 0.0026	0.0087 J	< 0.0026	0.0031 J	< 0.013	0.0053 J	0.0054 J	0.0037 J
	Semivolatile Organic Compounds (SVOCs)																			
8270C	1,2,4-Trichlorobenzene	120-82-1	MG/KG	140	260	0.3	< 0.055	< 0.056	< 0.058	< 0.059	< 0.057	< 0.27	< 0.057 J	< 0.057	< 0.056	< 0.057	< 0.058	< 0.057	< 0.057	< 0.057
8270C	1,2-Dichlorobenzene	95-50-1	MG/KG	280	370	0.9	< 0.049	< 0.05	< 0.051	0.16 J	0.31 J	< 0.24	0.43 J	< 0.05	< 0.05	0.06 J	< 0.051	< 0.051	< 0.05	< 0.05
8270C	1,3-Dichlorobenzene	541-73-1	MG/KG	69	140	NA	< 0.042	< 0.043	< 0.044	< 0.045	< 0.043	< 0.2	< 0.043 J	< 0.043	< 0.043	< 0.043	< 0.044	< 0.044	< 0.043	< 0.043
8270C	1,4-Dichlorobenzene	106-46-7	MG/KG	3.2	8.1	0.1	< 0.037	< 0.038	< 0.039	< 0.039	< 0.038	< 0.18	< 0.038 J	< 0.038	< 0.037	< 0.038	< 0.038	< 0.038	< 0.038	< 0.038
8270C	2,4,5-Trichlorophenol	95-95-4	MG/KG	6100	68000	14	< 0.042	< 0.043	< 0.045	< 0.045	< 0.044	< 0.2	< 0.043 J	< 0.043	< 0.043	< 0.043	< 0.044	< 0.044	< 0.043	< 0.043
8270C	2,4,6-Trichlorophenol	88-06-2	MG/KG	44	170	0.008	< 0.054	< 0.055	< 0.057	< 0.058	< 0.056	< 0.26	< 0.055 J	< 0.055	< 0.055	< 0.055	< 0.057	< 0.056	< 0.056	< 0.055
8270C	2,4-Dichlorophenol	120-83-2	MG/KG	180	2100	0.05	< 0.053	< 0.054	< 0.056	< 0.057	< 0.055	< 0.26	< 0.055 J	< 0.055	< 0.054	< 0.055	< 0.056	< 0.055	< 0.055	< 0.055
8270C	2,4-Dimethylphenol	105-67-9	MG/KG	1200	14000	0.4	< 0.096	< 0.099	< 0.1	< 0.1	< 0.1	< 0.47	< 0.099 J	< 0.099	< 0.099	< 0.099	< 0.1	< 0.1	< 0.099	< 0.099
8270C	2,4-Dinitrophenol	51-28-5	MG/KG	120	1400	0.01	< 0.22	< 0.23	< 0.23	0.77 J	0.77 J	< 1.1	< 0.23 J	< 0.23	< 0.22	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23
8270C	2,4-Dinitrotoluene	121-14-2	MG/KG	120	1400	0.00004	< 0.19	< 0.2	< 0.2	< 0.21	< 0.2	< 0.94	< 0.2 J	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
8270C	2,6-Dinitrotoluene	606-20-2	MG/KG	61	680	0.00003	< 0.05	< 0.051	< 0.053	< 0.054	< 0.052	< 0.24	< 0.052 J	< 0.052	< 0.051	< 0.052	< 0.053	< 0.052	< 0.052	< 0.052
8270C	2-Chloronaphthalene	91-58-7	MG/KG	3900	26000	NA	< 0.038	< 0.039	< 0.041	< 0.041	< 0.04	< 0.19	< 0.039 J	< 0.039	< 0.039	< 0.039	< 0.04	< 0.04	< 0.04	< 0.04
8270C	2-Chlorophenol	95-57-8	MG/KG	64	260	0.2	< 0.036	< 0.037	< 0.038	< 0.038	< 0.037	< 0.17	< 0.037 J	< 0.037	< 0.037	< 0.037	< 0.038	< 0.037	< 0.037	< 0.037
8270C	2-Methylnaphthalene	91-57-6	MG/KG	NA	NA	NA	< 0.039	< 0.04	< 0.042	< 0.042	< 0.041	0.27 J	< 0.041 J	< 0.04	< 0.04	< 0.04	< 0.041	< 0.041	< 0.041	< 0.041

Table 2
DPT Soil Sampling Analytical Results
Spring 2008
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Residential Soil (mg/kg)	Industrial Outdoor Worker Soil (mg/kg)	DAF1 (mg/kg)	DPT-36(4-8') 3/30/2008	DPT-37(4-8') 3/30/2008	DPT-38(4-8') 3/30/2008	DPT-39(12-16') 3/30/2008	DPT-39(4-8') 3/30/2008	DPT-4 (0-4') 3/26/2008	DPT-40(0-4') 3/30/2008	DPT-5 (0-4') 3/26/2008	DPT-6 (0-4') 3/26/2008	DPT-7 (0-4') 3/27/2008	DPT-7 (12-16') 3/27/2008	DPT-8 (0-4') 3/27/2008	DPT-9 (0-4') 3/27/2008	DPT-9 (12-16') 3/27/2008
8270C	2-Methylphenol	95-48-7	MG/KG	3100	34000	0.8	< 0.049	< 0.05	< 0.052	< 0.052	< 0.051	< 0.24	< 0.05 J	< 0.05	< 0.05	< 0.05	< 0.051	< 0.051	< 0.05	< 0.05
8270C	2-Nitroaniline	88-74-4	MG/KG	180	2000	NA	< 0.052	< 0.053	< 0.055	< 0.056	< 0.054	< 0.25	< 0.054 J	< 0.054	< 0.053	< 0.054	< 0.055	< 0.054	< 0.054	< 0.054
8270C	2-Nitrophenol	88-75-5	MG/KG	NA	NA	NA	< 0.077	< 0.079	< 0.082	< 0.083	< 0.08	< 0.38	< 0.079 J	< 0.079	< 0.079	< 0.079	< 0.081	< 0.08	< 0.08	< 0.08
8270C	3,3'-Dichlorobenzidine	91-94-1	MG/KG	1.1	4.3	0.0003	< 0.029	< 0.03	< 0.031	< 0.031	< 0.03	< 0.14	< 0.03 J	< 0.03	< 0.03	< 0.03	< 0.031	< 0.03	< 0.03	< 0.03
8270C	3,4-Dichloroaniline	95-76-1	MG/KG	NA	NA	NA	0.16 J	0.58	< 0.04	0.26 J	1.6	8.4	0.27 J	0.26 J	0.19 J	0.3 J	< 0.039	0.085 J	0.072 J	< 0.039
8270C	3-Methylphenol & 4-Methylphenol	65794-96-9	MG/KG	310	3400	NA	< 0.079	< 0.081	< 0.084	< 0.085	< 0.082	< 0.39	< 0.082 J	< 0.082	< 0.081	< 0.082	< 0.083	< 0.083	< 0.082	< 0.082
8270C	3-Nitroaniline	99-09-2	MG/KG	NA	NA	NA	< 0.039	< 0.04	< 0.041	< 0.042	< 0.041	< 0.19	< 0.04 J	< 0.04	< 0.04	< 0.04	< 0.041	< 0.041	< 0.04	< 0.04
8270C	4,6-Dinitro-2-methylphenol	534-52-1	MG/KG	NA	NA	NA	< 0.17	< 0.18	< 0.18	< 0.19	< 0.18	< 0.84	< 0.18 J	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
8270C	4-Bromophenyl phenyl ether	101-55-3	MG/KG	NA	NA	NA	< 0.037	< 0.038	< 0.039	< 0.04	< 0.038	< 0.18	< 0.038 J	< 0.038	< 0.038	< 0.038	< 0.039	< 0.039	< 0.038	< 0.038
8270C	4-Chloro-3-methylphenol	59-50-7	MG/KG	NA	NA	NA	< 0.065	< 0.066	< 0.068	< 0.069	< 0.067	< 0.31	< 0.066 J	< 0.066	< 0.066	< 0.066	< 0.068	< 0.067	< 0.067	< 0.067
8270C	4-Chloroaniline	106-47-8	MG/KG	240	2700	0.03	< 0.046	< 0.047	< 0.049	< 0.049	0.33 J	< 0.22	< 0.047 J	0.1 J	< 0.047	< 0.047	< 0.048	< 0.048	< 0.047	< 0.047
8270C	4-Chlorophenyl phenyl ether	7005-72-3	MG/KG	NA	NA	NA	< 0.031	< 0.032	< 0.033	< 0.034	< 0.033	< 0.15	< 0.032 J	< 0.032	< 0.032	< 0.032	< 0.033	< 0.033	< 0.032	< 0.032
8270C	4-Nitroaniline	100-01-6	MG/KG	NA	NA	NA	< 0.12	< 0.13	< 0.13	< 0.13	< 0.13	< 0.6	< 0.13 J	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13
8270C	4-Nitrophenol	100-02-7	MG/KG	490	5500	NA	< 0.19	< 0.19	< 0.2	< 0.2	< 0.19	< 0.9	< 0.19 J	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19
8270C	Acenaphthene	83-32-9	MG/KG	3700	33000	29	< 0.042	< 0.044	< 0.045	< 0.046	< 0.044	< 0.21	< 0.044 J	< 0.044	< 0.044	< 0.044	< 0.045	< 0.044	< 0.044	< 0.044
8270C	Acenaphthylene	208-96-8	MG/KG	NA	NA	NA	< 0.04	< 0.041	< 0.043	< 0.043	< 0.042	< 0.2	< 0.041 J	< 0.041	< 0.041	< 0.041	< 0.042	< 0.042	< 0.041	< 0.041
8270C	Aniline	62-53-3	MG/KG	85	340	NA	< 0.039	< 0.04	< 0.041	< 0.042	< 0.04	< 0.19	< 0.04 J	< 0.04	< 0.04	< 0.04	< 0.041	< 0.04	< 0.04	< 0.04
8270C	Anthracene	120-12-7	MG/KG	22000	100000	590	< 0.03	< 0.031	< 0.032	< 0.032	< 0.031	0.4 J	< 0.031 J	< 0.031	< 0.031	< 0.031	< 0.032	< 0.031	< 0.031	< 0.031
8270C	Benzo(a)anthracene	56-55-3	MG/KG	0.15	2.3	0.08	< 0.024	< 0.025	< 0.026	< 0.026	< 0.025	< 0.12	< 0.025 J	< 0.025	< 0.025	< 0.025	< 0.026	< 0.025	< 0.025	< 0.025
8270C	Benzo(a)pyrene	50-32-8	MG/KG	0.015	0.23	0.4	< 0.028	< 0.029	< 0.03	< 0.03	< 0.029	< 0.14	< 0.029 J	< 0.029	< 0.029	< 0.029	< 0.029	< 0.029	< 0.029	< 0.029
8270C	Benzo(b)fluoranthene	205-99-2	MG/KG	0.15	2.3	0.2	< 0.064	< 0.066	< 0.068	< 0.069	< 0.066	< 0.31	< 0.066 J	< 0.066	< 0.065	< 0.066	< 0.067	< 0.067	< 0.066	< 0.066
8270C	Benzo(ghi)perylene	191-24-2	MG/KG	NA	NA	NA	< 0.033	< 0.034	< 0.035	< 0.035	< 0.034	< 0.16	< 0.034 J	< 0.034	< 0.034	< 0.034	< 0.035	< 0.034	< 0.034	< 0.034
8270C	Benzo(k)fluoranthene	207-08-9	MG/KG	1.5	23	2	< 0.049	< 0.05	< 0.052	< 0.052	< 0.051	< 0.24	< 0.05 J	< 0.05	< 0.05	< 0.05	< 0.051	< 0.051	< 0.05	< 0.05
8270C	Benzoic acid	65-85-0	MG/KG	100000	100000	20	< 0.14	< 0.15	< 0.15	0.48 J	< 0.15	< 0.69	< 0.15 J	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15
8270C	Benzyl alcohol	100-51-6	MG/KG	18000	100000	NA	< 0.1	< 0.1	< 0.11	< 0.11	< 0.11	< 0.5	< 0.1 J	< 0.1	< 0.1	< 0.1	< 0.11	< 0.11	< 0.11	< 0.11
8270C	bis(2-Chloroethoxy)methane	111-91-1	MG/KG	NA	NA	NA	< 0.04	< 0.041	< 0.042	< 0.043	< 0.041	< 0.19	< 0.041 J	< 0.041	< 0.041	< 0.041	< 0.042	< 0.041	< 0.041	< 0.041
8270C	bis(2-Chloroethyl) ether	111-44-4	MG/KG	0.21	0.62	0.00002	< 0.042	< 0.043	< 0.045	< 0.045	< 0.044	< 0.2	< 0.043 J	< 0.043	< 0.043	< 0.043	< 0.044	< 0.044	< 0.043	< 0.043
8270C	bis(2-Chloroisopropyl) ether	108-60-1	MG/KG	2.9	8.2	NA	< 0.033	< 0.034	< 0.035	< 0.036	< 0.035	< 0.16	< 0.034 J	< 0.034	< 0.034	< 0.034	< 0.035	< 0.035	< 0.034	< 0.034
8270C	bis(2-Ethylhexyl) phthalate	117-81-7	MG/KG	35	140	180	0.094 J	0.086 J	0.11 J	0.12 J	0.11 J	5.2	0.078 J	0.11 J	0.13 J	0.068 J	0.085 J	0.12 J	0.086 J	0.12 J
8270C	Butyl benzyl phthalate	85-68-7	MG/KG	240	240	810	< 0.032	< 0.033	< 0.034	< 0.034	< 0.033	< 0.16	< 0.033 J	< 0.033	< 0.033	< 0.033	< 0.034	< 0.033	< 0.033	< 0.033
8270C	Chrysene	218-01-9	MG/KG	15	230	8	< 0.028	< 0.028	< 0.029	< 0.03	< 0.029	< 0.13	< 0.029 J	< 0.028	< 0.028	< 0.028	< 0.029	< 0.029	< 0.029	< 0.029
8270C	Dibenz(a,h)anthracene	53-70-3	MG/KG	0.015	0.23	0.08	< 0.1	< 0.11	< 0.11	< 0.11	< 0.11	< 0.5	< 0.11 J	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11
8270C	Dibenzofuran	132-64-9	MG/KG	150	1700	NA	< 0.044	< 0.045	< 0.047	< 0.047	< 0.046	< 0.21	< 0.045 J	< 0.045	< 0.045	< 0.045	< 0.046	< 0.046	< 0.045	< 0.045
8270C	Diethyl phthalate	84-66-2	MG/KG	49000	100000	NA	< 0.026	< 0.027	< 0.028	< 0.028	< 0.027	< 0.13	< 0.027 J	< 0.027	< 0.027	< 0.027	< 0.028	< 0.027	< 0.027	< 0.027
8270C	Dimethyl phthalate	131-11-3	MG/KG	100000	100000	NA	< 0.029	< 0.03	< 0.031	< 0.031	< 0.03	< 0.14	< 0.03 J	< 0.03	< 0.03	< 0.03	< 0.031	< 0.03	< 0.03	< 0.03
8270C	Di-n-butyl phthalate	84-74-2	MG/KG	6100	68000	270	< 0.03	< 0.031	< 0.032	< 0.032	< 0.031	< 0.15	0.073 J	< 0.031	< 0.031	< 0.031	< 0.032	< 0.031	< 0.031	< 0.031
8270C	Di-n-octyl phthalate	117-84-0	MG/KG	NA	NA	10000	< 0.15	< 0.15	< 0.16	< 0.16	< 0.15	< 0.72	< 0.15 J	< 0.15	< 0.15	< 0.15	< 0.16	< 0.15	< 0.15	< 0.15
8270C	Dinoseb	88-85-7	MG/KG	61	680	NA	14	**240**	< 0.017	1.6	52	**250**	< 0.017 J	**140**	0.33 J	0.54 J	< 0.017	**240**	**100**	< 0.017
8270C	Fluoranthene	206-44-0	MG/KG	2300	24000	210	< 0.03	< 0.031	< 0.032	< 0.032	< 0.031	0.19 J	< 0.031 J	< 0.031	0.053 J	< 0.031	< 0.031	< 0.031	< 0.031	< 0.031
8270C	Fluorene	86-73-7	MG/KG	2600	26000	28	< 0.028	< 0.029	< 0.03	< 0.03	< 0.029	< 0.14	< 0.029 J	< 0.029	< 0.029	< 0.029	< 0.03	< 0.029	< 0.029	< 0.029
8270C	Hexachlorobenzene	118-74-1	MG/KG	0.3	1.2	0.1	< 0.034	< 0.035	< 0.036	< 0.037	< 0.036	< 0.17	< 0.035 J	< 0.035	< 0.035	< 0.035	< 0.036	< 0.036	< 0.035	< 0.035
8270C	Hexachlorobutadiene	87-68-3	MG/KG	6.2	25	0.1	< 0.05	< 0.051	< 0.053	< 0.053	< 0.052	< 0.24	< 0.051 J	< 0.051	< 0.051	< 0.051	< 0.052	< 0.052	< 0.051	< 0.051
8270C	Hexachlorocyclopentadiene	77-47-4	MG/KG	370	4100	20	< 0.21	< 0.21	< 0.22	< 0.22	< 0.21	< 1	< 0.21 J	< 0.21	< 0.21	< 0.21	< 0.22	< 0.22	< 0.21	< 0.21
8270C	Hexachloroethane	67-72-1	MG/KG	35	140	0.02	< 0.053	< 0.054	< 0.056	< 0.057	< 0.055	< 0.26	< 0.054 J	< 0.054	< 0.054	< 0.054	< 0.055	< 0.055	< 0.054	< 0.054
8270C	Indeno(1,2,3-cd)pyrene	193-39-5	MG/KG	0.15	2.3	0.7	< 0.063	< 0.065	< 0.067	< 0.068	< 0.066	< 0.31	< 0.065 J	< 0.065	< 0.065	< 0.065	< 0.066	< 0.066	< 0.065	< 0.065
8270C	Isophorone	78-59-1	MG/KG	510	2000	0.03	< 0.052	< 0.054	< 0.055	< 0.056	< 0.054	< 0.25	< 0.054 J	< 0.054	< 0.054	< 0.054	< 0.055	< 0.054	< 0.054	< 0.054
8270C	Naphthalene	91-20-3	MG/KG	120	210	4	< 0.039	< 0.04	< 0.041	< 0.042	< 0.04	2.7	< 0.04 J	< 0.04	< 0.04	< 0.04	< 0.041	< 0.041	< 0.04	< 0.04
8270C	Nitrobenzene	98-95-3	MG/KG	20	110	0.007	< 0.06	< 0.062	< 0.064	< 0.065	< 0.062	< 0.29	< 0.062 J	< 0.062	< 0.062	< 0.062	< 0.063	< 0.063	< 0.062	< 0.062
8270C	N-Nitrosodi-n-propylamine	621-64-7	MG/KG	0.07	0.27	0.000002	< 0.03	< 0.031	< 0.032	< 0.032	< 0.031	< 0.14	< 0.031 J	< 0.031	< 0.031	< 0.031	< 0.031	< 0.031	< 0.031	< 0.031
8270C	N-Nitrosodiphenylamine	86-30-6	MG/KG	99	390	0.06	< 0.028	< 0.029	< 0.029	< 0.03	< 0.029	< 0.14	< 0.029 J	< 0.029	< 0.028	< 0.029	< 0.029	< 0.029	< 0.029	< 0.029
8270C	Pentachlorophenol	87-86-5	MG/KG	3	10	0.001	< 0.062	< 0.063	< 0.065	< 0.066	< 0.064	< 0.3	< 0.064 J	< 0.063	< 0.063	< 0.063	< 0.065	< 0.064	< 0.064	< 0.064
8270C	Phenanthrene	85-01-8	MG/KG	NA	NA	NA	< 0.027	< 0.028	< 0.029	< 0.029	< 0.028	0.36 J	< 0.028 J	< 0.028	0.12 J	< 0.028	< 0.029	< 0.028	< 0.028	< 0.028
8270C	Phenol	108-95-2	MG/KG	18000	100000	5	< 0.04	< 0.041	< 0.043	< 0.043	< 0.042	< 0.2	< 0.041 J	< 0.041	< 0.041	< 0.041	< 0.042	< 0.042	< 0.041	< 0.041
8270C	Propanil	709-98-8	MG/KG	310	3400	NA	0.16 J	0.07 J	< 0.036	1.7	0.12 J	< 0.17	< 0.035 J	< 0.035	< 0.035	0.09 J	< 0.036	< 0.035	< 0.035	< 0.035
8270C	Pyrene	129-00-0	MG/KG	2300	32000	210	< 0.029	< 0.029	< 0.03	< 0.031	< 0.03	< 0.14	< 0.029 J	< 0.029	0.11 J	< 0.029	< 0.03	< 0.03	< 0.03	< 0.029

Table 2
DPT Soil Sampling Analytical Results
Spring 2008
Cedar Chemical Corporation
Helena-West Helena, Arkansas
Project 13636

Notes:

--	No data available for reported analyte
<	The analyte was not detected at the concentration given.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
JH	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample, with a high bias.
JL	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample, with a low bias.
UB	Not detected substantially above the concentration reported in the laboratory or field blanks. For organics - 5X (10X for common laboratory contaminants) or for metals 10X. Data point considered non-detect at the reported value.
UBJ	Not detected substantially above the concentration reported in the laboratory or field blanks. Data point considered non-detect and the reported value is an approximate.

TABLE 3

Well Construction Information

TABLE 3
WELL CONSTRUCTION INFORMATION
CEDAR CHEMICAL CORPORATION
HELENA-WEST HELENA, ARKANSAS

Well Description	Installed By:	Completion Date	Northing	Easting	Type of Completion	Top of Casing Elevation (feet)	Total Depth of Borehole (ft-bgs)	Total Depth (measured from TOC)	Screened Interval (measured from TOC)	Well casing diameter (inches)	Screen Slot Size (inches)	Grount Seal Interval (ft-bgs)	Bentc Int (fi
MW-10	AMEC	06/07/08	4853.04	6346.63	Flush	199.13	27.0	24.20	14-24	2	0.01	0-9	9-1
MW-11	AMEC	06/03/08	4385.55	5214.78	Flush	185.57	24.0	23.78	14-24	2	0.01	0-9.5	9
MW-12	AMEC	06/08/08	4958.78	6048.91	Flush	197.93	27.0	24.00	14-24	2	0.01	0-9	9-1
MW-13	AMEC	06/08/08	4950.72	6059.23	Flush	198.05	67.0	64.05	54-64	2	0.01	0-50	50-5
MW-14	AMEC	06/09/08	5038.49	5935.06	Flush	197.45	27.0	23.84	14-24	2	0.01	0-9	9-1
MW-15	AMEC	06/09/08	5029.93	5935.07	Flush	197.31	70.0	64.00	54-64	2	0.01	0-50	50-5
MW-16	AMEC	06/06/08	4880.22	5716.15	Flush	196.17	27.0	24.03	14-24	2	0.01	0-9	9-1
MW-17	AMEC	06/07/08	4922.92	5633.59	Flush	198.10	70.0	67.09	57-67	2	0.01	0-53	53-5
MW-18	AMEC	06/06/08	4931.87	5640.81	Flush	198.26	27.0	24.40	14-24	2	0.01	0-9	9-1
MW-19	AMEC	06/06/08	4827.17	5827.80	Flush	201.25	27.0	27.65	17-27	2	0.01	0-9	9-1
MW-20	AMEC	06/04/08	4695.31	6516.84	Stick-up	202.12	27.0	27.27	17-27	2	0.01	0-9	9-12
MW-21	AMEC	06/16/08	4637.21	5989.37	Stick-up	199.96	27.0	27.07	17-27	2	0.01	0-9	9-1
MW-23	AMEC	06/11/08	5033.54	4945.19	Stick-up	199.36	100.0	99.30	89-99	2	0.01	0-83	83-8
MW-24	AMEC	06/10/08	5399.15	5514.37	Stick-up	200.64	27.0	27.48	17-27	2	0.01	0-9	9-1
TW-1	AMEC	03/26/08	NM	NM	Stick-up	Not Surveyed	24.0	26.67	16-26	1	0.01	--	
TW-2	AMEC	03/26/08	NM	NM	Stick-up	Not Surveyed	24.0	23.25	13-23	1	0.01	--	
TW-3	AMEC	03/27/08	NM	NM	Stick-up	Not Surveyed	24.0	26.74	16-26	1	0.01	--	
TW-4	AMEC	03/27/08	NM	NM	Stick-up	Not Surveyed	24.0	22.70	12-22	1	0.01	--	(
TW-5	AMEC	03/28/08	NM	NM	Stick-up	Not Surveyed	24.0	26.55	16-26	1	0.01	--	0
TW-6	AMEC	03/28/08	NM	NM	Stick-up	Not Surveyed	24.0	27.07	17-27	1	0.01	--	0
TW-7	AMEC	03/29/08	NM	NM	Stick-up	Not Surveyed	24.0	26.30	16-26	1	0.01	--	
TW-8	AMEC	03/30/08	NM	NM	Stick-up	Not Surveyed	24.0	25.22	15-25	1	0.01	--	
TW-9	AMEC	03/30/08	NM	NM	Stick-up	Not Surveyed	24.0	26.00	16-26	1	0.01	--	0
TW-10	AMEC	03/30/08	NM	NM	Stick-up	Not Surveyed	24.0	26.71	16-26	1	0.01	--	0
OFF-MW-5 (upper)*	AMEC	07/09/08	3878.62	7212.43	Stick-up	194.84	146.0	71.5	71.5	CMT	--	0-63	63-6
OFF-MW-5 (middle)*	AMEC	07/09/08	3878.62	7212.43	Stick-up	194.84	146.0	102.5	102.5	CMT	--	-	73-75
OFF-MW-5 (lower)*	AMEC	07/09/08	3878.62	7212.43	Stick-up	194.84	146.0	144.5	144.5	CMT	--	-	120-12
OFF-MW-6 (upper)*	AMEC	07/11/08	3423.73	6287.66	Stick-up	194.24	145.0	77.5	77.5	CMT	--	0-68	68-7
OFF-MW-6 (middle)*	AMEC	07/11/08	3423.73	6287.66	Stick-up	194.24	145.0	92.2	92	CMT	--	-	82-84
OFF-MW-6 (lower)*	AMEC	07/11/08	3423.73	6287.66	Stick-up	194.24	145.0	117.5	117.5	CMT	--	-	100-10
OFF-MW-7 (upper)*	AMEC	06/05/08	2447.83	4999.26	Stick-up	185.91	147.0	56.5	56.5	CMT	--	0-46	46-4
OFF-MW-7 (middle)*	AMEC	06/05/08	2447.83	4999.26	Stick-up	185.91	147.0	86.5	86.5	CMT	--	-	69-7
OFF-MW-7 (lower)*	AMEC	06/05/08	2447.83	4999.26	Stick-up	185.91	147.0	116.5	117.5	CMT	--	-	99-10
OFF-MW-8 (upper)*	AMEC	06/21/08	1946.03	6383.22	Flush	189.17	137.0	53.0	53	CMT	--	0-48	48-5
OFF-MW-8 (middle)*	AMEC	06/21/08	1946.03	6383.22	Flush	189.17	137.0	85.0	85	CMT	--	-	56-5
OFF-MW-8 (lower)*	AMEC	06/21/08	1946.03	6383.22	Flush	189.17	137.0	115.0	115	CMT	--	-	90-92
OFF-MW-9 (upper)*	AMEC	10/11/08	--	--	Flush	192.41	157.0	66.5	66.5	CMT	--	0-55	55-5
OFF-MW-9 (middle)*	AMEC	10/11/08	--	--	Flush	192.41	157.0	95.5	95.5	CMT	--	-	74-76
OFF-MW-9 (lower)*	AMEC	10/11/08	--	--	Flush	192.41	157.0	143.5	143.5	CMT	--	-	102-10
OFF-MW-10 (upper)*	AMEC	10/09/08	--	--	Flush	188.61	147.0	52.5	52.5	CMT	--	0-46	46-4
OFF-MW-10 (middle)*	AMEC	10/09/08	--	--	Flush	188.61	147.0	81.5	81.5	CMT	--	-	55-5
OFF-MW-10 (lower)*	AMEC	10/09/08	--	--	Flush	188.61	147.0	134.5	134.5	CMT	--	-	87-89
OFF-MW-11 (upper)*	AMEC	10/08/08	--	--	Flush	185.57	147.0	56.5	57	CMT	--	0-50	50-5
OFF-MW-11 (middle)*	AMEC	10/08/08	--	--	Flush	185.57	147.0	83.5	83.5	CMT	--	-	60-6
OFF-MW-11 (lower)*	AMEC	10/08/08	--	--	Flush	185.57	147.0	132.5	132.5	CMT	--	-	87-89
MW-22 (middle)*	AMEC	06/18/08	4630.75	5988.35	Stick-up	200.00	157.0	88.5	88.5	CMT	--	0-70	70-75
MW-22 (lower)*	AMEC	06/18/08	4630.75	5988.35	Stick-up	200.00	157.0	148.2	148	CMT	--	-	116-11
MW-25 (middle)*	AMEC	06/19/08	5393.20	5512.27	Stick-up	200.24	147.0	84.5	84.5	CMT	--	0-73	73-7
MW-25 (lower)*	AMEC	06/19/08	5393.20	5512.27	Stick-up	200.24	147.0	112.5	112.5	CMT	--	-	95-97
MW-26 (upper)*	AMEC	10/13/08	--	--	Flush	198.37	167.0	77.0	77	CMT	--	0-65	65-6
MW-26 (middle)*	AMEC	10/13/08	--	--	Flush	198.37	167.0	105.0	105	CMT	--	-	80-82
MW-26 (lower)*	AMEC	10/13/08	--	--	Flush	198.37	167.0	154.0	154	CMT	--	-	128-13
1MW-1 (CEDI-MW-1)	EnSafe	12/07/94	4385.55	5214.78	Stick-up	196.07	18.0	21.33	11-21	2	--	0-6	
1MW-2	EnSafe	08/31/90	4162.55	4929.75	Stick-up	194.98	19.0	22.27	12-22	2	--	0-7	
1MW-3	EnSafe	09/01/93	3875.03	4883.22	Stick-up	192.13	19.0	22.13	12-22	2	--	0-7	
1MW-4	EnSafe	09/01/93	3748.74	5157.03	Stick-up	192.45	21.0	24.57	14-24	2	--	0-9	
1MW-5	EnSafe	09/01/93	3965.53	5383.92	Stick-up	194.73	18.0	21.26	11-21	2	--	0-6	
1MW-6	EnSafe	09/01/93	3746.22	5153.65	Stick-up	192.55	40.0	36.13	26-36	2	--	0-23	2
1MW-7 (CED1-MW-7)	EnSafe	12/12/94	4375.16	5205.46	Stick-up	196.06	54.0	55.18	45-55	2	--	0-36	3
2MW-1	EnSafe	--	5006.34	5491.83	Stick-up	201.64	--	27.08	--	2	--	--	
2MW-2	EnSafe	09/13/93	5273.40	5213.15	Stick-up	200.33	24.0	27.08	17-27	2	--	0-7	

TABLE 3
WELL CONSTRUCTION INFORMATION
CEDAR CHEMICAL CORPORATION
HELENA-WEST HELENA, ARKANSAS

Well Description	Installed By:	Completion Date	Northing	Easting	Type of Completion	Top of Casing Elevation (feet)	Total Depth of Borehole (ft-bgs)	Total Depth (measured from TOC)	Screened Interval (measured from TOC)	Well casing diameter (inches)	Screen Slot Size (inches)	Grount Seal Interval (ft-bgs)	Bentc Int (fi
2MW-3	EnSafe	09/10/93	5022.01	5189.31	Stick-up	199.32	40.0	39.97	30-40	2	--	0-23	2
2MW-4	EnSafe	09/15/93	5003.11	5488.98	Stick-up	201.78	40.0	43.20	33-43	2	--	0-18	1
2MW-5	EnSafe	09/16/93	5270.93	5210.60	Stick-up	200.63	40.0	41.93	31-41	2	--	0-22	2
2MW-6 (CED2-MW-6)	EnSafe	12/07/94	5046.32	4943.12	Stick-up	199.02	41.0	42.55	32-42	2	--	0-17	1
2MW-7 (CED2-MW-7)	EnSafe	12/09/94	5042.53	4952.44	Stick-up	199.31	145.0	148.32	138-148	2	--	--	
4MW-1	EnSafe	09/16/93	5095.31	5990.88	Flush	198.29	37.0	39.11	29-39	2	--	0-25	2
4MW-3 (CED4 -MW-3)	EnSafe	12/06/94	4742.80	6234.52	Stick-up	201.54	42.5	45.44	35-45	2	--	0-18	18-24 (24 with
4MW-4 (CED4-MW-4)	EnSafe	01/14/94	4361.98	5651.92	Stick-up	202.58	151.0	153.50	143-153	2	--	0-127	12
9MW-1 (CED9-MW-1)	EnSafe	12/21/94	4880.43	5726.26	Stick-up	196.55	41.0	41.05	31-41	2	--	0-22	2
EMW-1	EnSafe	--	4771.20	5168.17	--	198.78	--	37.70	--	2	--	--	
EMW-2	EnSafe	--	5412.17	5511.72	--	200.52	--	36.87	--	2	--	--	
EMW-3	EnSafe	--	4662.92	6000.27	--	199.10	--	37.32	--	2	--	--	
EMW-4	EnSafe	--	4635.49	5318.64	--	198.71	--	35.75	--	2	--	--	
EMW-6	EnSafe	--	4309.08	5599.86	--	200.13	--	81.90	--	2	--	--	
EMW-6A	EnSafe	--	4304.80	5595.51	--	199.11	--	52.72	--	2	--	--	
EMW-6B	EnSafe	--	4300.07	5592.97	--	198.67	--	32.61	--	2	--	--	
EMW-6C	EnSafe	--	4296.69	5589.88	--	198.71	--	18.68	--	2	--	--	
EMW-7	EnSafe	--	4385.55	5214.78	--	199.07	--	45.20	--	2	--	--	
OFF-MW-1	EnSafe	12/15/95	--	--	Stick-up	Not Surveyed	143.5	NM	126-136	2	--	0-113	11
OFF-MW-2	EnSafe	12/22/95	--	--	Stick-up	Not Surveyed	110.0	NM	90-110	2	--	0-86	8
OFF-MW-3	EnSafe	12/07/95	1349.11	4785.96	Stick-up	183.95	133.0	NM	108-128	2	--	0-103	10
OFF-MW-4	EnSafe	12/12/95	1348.94	4781.99	Stick-up	184.03	99.0	NM	79-99	2	--	0-77	7

Notes:

Due to equipment limitations, gauging data for all CMT wells is rounded to the nearest .25 foot.

"*" indicates well was completed as a CMT well.

"-" indicates not applicable

"--" indicates informtion not available

TABLE 4

Groundwater Elevation Data

TABLE 4
GROUNDWATER ELEVATION DATA
CEDAR CHEMICAL CORPORATION
HELENA-WEST HELENA, ARKANSAS

Well Description	Date	Top of Casing Elevation (feet)	Depth to Water (feet)	Total Depth	Water Column Thickness	Depth to Phase Separated Hydrocarbon (feet)	Phase Separated Hydrocarbon Thickness (feet)	Corrected Groundwater Elevation (feet)	Screened Interval (ft-bgs)	Northing	Easting
Perched Zone Monitoring Wells											
1MW-1 (CEDI-MW-1)	01/07/08	196.07	13.32	21.33	8.01	NP	0.00	182.75	11-21	4385.55	5214.78
	07/21/08	196.07	15.35	21.33	5.98	NP	0.00	180.72			
	09/25/08	196.07	16.72	21.33	4.61	NP	0.00	179.35			
1MW-2	01/07/08	194.98	14.86	22.27	7.41	NP	0.00	180.12	12-22	4162.55	4929.75
	07/21/08	194.98	14.53	22.27	7.74	NP	0.00	180.45			
	09/25/08	194.98	19.91	22.27	2.36	NP	0.00	175.07			
1MW-3	01/07/08	192.13	14.83	22.13	7.30	NP	0.00	177.30	12-22	3875.03	4883.22
	07/21/08	192.13	16.59	22.13	5.54	NP	0.00	175.54			
	09/25/08	192.13	19.16	22.13	2.97	NP	0.00	172.97			
1MW-4	01/07/08	192.45	10.61	24.57	13.96	NP	0.00	181.84	14-24	3748.74	5157.03
	07/21/08	192.45	14.55	24.57	10.02	NP	0.00	177.90			
	09/25/08	192.45	14.91	24.57	9.66	NP	0.00	177.54			
1MW-5	01/07/08	194.73	9.04	21.26	12.22	NP	0.00	185.69	11-21	3965.53	5383.92
	07/21/08	194.73	13.89	21.26	7.37	NP	0.00	180.84			
	09/25/08	194.73	13.41	21.26	7.85	NP	0.00	181.32			
2MW-1	01/07/08	201.64	22.09	27.08	4.99	NP	0.00	179.55	NM	5006.34	5491.83
	07/21/08	201.64	24.02	27.08	3.06	NP	0.00	177.62			
	09/24/08	201.64	25.41	27.08	1.67	NP	0.00	176.23			
2MW-2	01/07/08	200.33	22.22	27.08	4.86	NP	0.00	178.11	17-27	5273.40	5213.15
	07/21/08	200.33	25.70	27.08	1.38	NP	0.00	174.63			
	09/25/08	200.33	24.68	27.08	2.40	NP	0.00	175.65			
EMW-1	01/07/08	198.78	17.31	37.70	20.39	NP	0.00	181.47	NM	4771.20	5168.17
	07/22/08	198.78	22.62	37.70	15.08	NP	0.00	176.16			
	09/25/08	198.78	20.58	37.70	17.12	NP	0.00	178.20			
EMW-4	01/07/08	198.71	12.33	35.75	23.42	NP	0.00	186.38	NM	4635.49	5318.64
	07/22/08	198.71	15.73	35.75	20.02	NP	0.00	182.98			
	09/25/08	198.71	13.88	35.75	21.87	NP	0.00	184.83			
EMW-6B	01/07/08	198.67	11.60	32.61	21.01	NP	0.00	187.07	NM	4300.07	5592.97
	07/22/08	198.67	15.38	32.61	17.23	NP	0.00	183.29			
	09/23/08	198.67	14.30	32.61	18.31	NP	0.00	184.37			
EMW-6C	01/07/08	198.71	11.43	18.68	7.25	NP	0.00	187.28	NM	4296.69	5589.88
	07/22/08	198.71	15.22	18.68	3.46	NP	0.00	183.49			
	09/23/08	198.71	14.05	18.68	4.63	NP	0.00	184.66			
MW-10	01/07/08	199.13	Not Installed	24.20	NM	NP	0.00	NM	14-24	4853.04	6346.63
	07/21/08	199.13	23.81	24.20	0.39	NP	0.00	175.32			
	09/23/08	199.13	19.91	24.20	4.29	NP	0.00	179.22			
MW-11	01/07/08	Not Installed	Not Installed	Not Installed	Not Installed	Not Installed	Not Installed	Not Installed	Not Installed	Not Installed	Not Installed
	07/22/08	199.51	23.57	23.78	0.21	NP	0.00	175.94			
	09/23/08	199.51	23.63	23.78	0.15	NP	0.00	175.88			
MW-12	01/07/08	197.93	Not Installed	24.00	#VALUE!	NP	0.00	NM	14-24	4958.78	6048.91
	07/22/08	197.93	23.79	24.00	0.21	NP	0.00	174.14			
	09/23/08	197.93	23.56	24.00	0.44	NP	0.00	174.37			
MW-14	01/07/08	197.45	Not Installed	23.84	NM	NP	0.00	NM	14-24	5038.49	5935.06
	07/22/08	197.45	23.45	23.84	0.39	NP	0.00	174.00			
	09/23/08	197.45	23.56	23.84	0.28	NP	0.00	173.89			
MW-16	01/07/08	196.17	Not Installed	24.03	NM	NP	0.00	NM	14-24	4880.22	5716.15
	07/22/08	196.17	18.04	24.03	5.99	NP	0.00	178.13			
	09/24/08	196.17	17.27	24.03	6.76	NP	0.00	178.90			
MW-18	01/07/08	198.26	Not Installed	24.40	NM	NP	0.00	NM	14-24	4931.87	5640.81
	07/22/08	198.26	18.29	24.40	6.11	NP	0.00	179.97			
	09/26/08	198.26	19.09	24.40	5.31	NP	0.00	179.17			
MW-19	01/07/08	201.25	Not Installed	27.65	NM	NP	0.00	NM	17.5-27.5	4827.17	5827.80
	07/22/08	201.25	27.26	27.65	0.39	NP	0.00	173.99			
	09/23/08	201.25	27.28	27.65	0.37	NP	0.00	173.97			
MW-20	01/07/08	202.12	Not Installed	27.27	NM	NP	0.00	NM	17-27	4695.31	6516.84
	07/21/08	202.12	26.82	27.27	0.45	NP	0.00	175.30			
	09/23/08	202.12	26.88	27.27	0.39	NP	0.00	175.24			
MW-21	01/07/08	199.96	Not Installed	27.07	NM	NP	0.00	NM	17-27	4637.21	5989.37
	07/21/08	199.96	26.80	27.07	0.27	NP	0.00	173.16			
	09/23/08	199.96	26.84	27.07	0.23	NP	0.00	173.12			
MW-24	01/07/08	200.64	Not Installed	27.48	NM	NP	0.00	NM	17-27	5399.15	5514.37
	07/21/08	200.64	27.24	27.48	0.24	NP	0.00	173.40			
	09/23/08	200.64	27.18	27.48	0.30	NP	0.00	173.46			
Temporary Monitoring Wells											

TABLE 4
GROUNDWATER ELEVATION DATA
CEDAR CHEMICAL CORPORATION
HELENA-WEST HELENA, ARKANSAS

Well Description	Date	Top of Casing Elevation (feet)	Depth to Water (feet)	Total Depth	Water Column Thickness	Depth to Phase Separated Hydrocarbon (feet)	Phase Separated Hydrocarbon Thickness (feet)	Corrected Groundwater Elevation (feet)	Screened Interval (ft-bgs)	Northing	Easting
2MW-4	01/07/08	201.78	26.38	43.20	16.82	NP	0.00	175.40	33-43	5003.11	5488.98
	07/21/08	201.78	39.53	43.20	3.67	NP	0.00	162.25			
	09/24/08	201.78	31.31	43.20	11.89	NP	0.00	170.47			
2MW-5	01/07/08	200.63	24.96	41.93	16.97	NP	0.00	175.67	31-41	5270.93	5210.60
	07/21/08	200.63	37.77	41.93	4.16	NP	0.00	162.86			
	09/25/08	200.63	29.92	41.93	12.01	NP	0.00	170.71			
2MW-6 (CED2-MW-6)	01/07/08	199.02	23.55	42.55	19.00	NP	0.00	175.47	32-42	5046.32	4943.12
	07/22/08	199.02	36.43	42.55	6.12	NP	0.00	162.59			
	09/24/08	199.02	28.68	42.55	13.87	NP	0.00	170.34			
4MW-1	01/07/08	198.29	Well Not Found	39.11	NM	NP	0.00	NM	29-39	5095.31	5990.88
	07/22/08	198.29	36.12	39.11	2.99	NP	0.00	162.17			
	09/24/08	198.29	Well Abandoned	39.11	NM	NP	0.00	NM			
4MW-3 (CED4 -MW-3)	01/07/08	201.54	26.27	45.44	19.17	NP	0.00	175.27	35-45	4742.80	6234.52
	07/22/08	201.54	39.82	45.44	5.62	NP	0.00	161.72			
	09/25/08	201.54	30.85	45.44	14.59	NP	0.00	170.69			
9MW-1 (CED9-MW-1)	01/07/08	196.55	21.22	41.05	19.83	NP	0.00	175.33	31-41	4880.43	5726.26
	07/22/08	196.55	34.51	41.05	6.54	NP	0.00	162.04			
	09/24/08	196.55	26.11	41.05	14.94	NP	0.00	170.44			
EMW-2	01/07/08	200.52	24.75	36.87	12.12	NP	0.00	175.77	NM	5412.17	5511.72
	07/21/08	200.52	36.38	36.87	0.49	NP	0.00	164.14			
	09/24/08	200.52	29.62	36.87	7.25	NP	0.00	170.90			
EMW-3	01/07/08	199.10	24.64	37.32	12.68	NP	0.00	174.46	NM	4662.92	6000.27
	07/22/08	199.10	DRY	37.32	DRY	NP	0.00	NM			
	09/28/08	199.10	29.20	37.32	8.12	NP	0.00	169.90			
EMW-6A	01/07/08	199.11	24.11	52.72	28.61	NP	0.00	175.00	NM	4304.80	5595.51
	07/22/08	199.11	37.73	52.72	14.99	NP	0.00	161.38			
	09/23/08	199.11	28.58	52.72	24.14	NP	0.00	170.53			
EMW-7	01/07/08	199.07	23.84	45.20	21.36	NP	0.00	175.23	NM	4385.55	5214.78
	07/22/08	199.07	37.31	45.20	7.89	NP	0.00	161.76			
	09/25/08	199.07	28.41	45.20	16.79	NP	0.00	170.66			
MW-13	01/07/08	198.05	Not Installed	64.05	NM	NP	0.00	NM	54-64	4950.72	6059.23
	07/22/08	198.05	36.09	64.05	27.96	NP	0.00	161.96			
	09/23/08	198.05	27.50	64.05	36.55	NP	0.00	170.55			
MW-15	01/07/08	197.31	Not Installed	64.00	NM	NP	0.00	NM	54-64	5029.93	5935.07
	07/22/08	197.31	35.24	64.00	28.76	NP	0.00	162.07			
	09/23/08	197.31	26.71	64.00	37.29	NP	0.00	170.60			
MW-17	01/07/08	198.10	Not Installed	67.09	NM	NP	0.00	NM	57-67	4922.92	5633.59
	07/22/08	198.10	35.99	67.09	31.10	NP	0.00	162.11			
	09/23/08	198.10	27.78	67.09	39.31	NP	0.00	170.32			
MW-26 (upper)*	01/07/08	Not Installed	Not Installed	Not Installed	NM	NP	0.00	NM	77		
	07/22/08	Not Installed	Not Installed	Not Installed	NM	NP	0.00	NM			
	09/28/08	Not Installed	Not Installed	Not Installed	NM	NP	0.00	NM			
	11/03/08	198.37	25.60	77.00	51.40	NP	0.00	172.77			
OFF-MW-5 (upper)*	01/07/08	194.84	Not Installed	71.50	NM	NP	0.00	NM	71.5	3878.62	7212.43
	07/21/08	194.84	34.50	71.50	37.00	NP	0.00	160.34			
	09/26/08	194.84	24.25	71.50	47.25	NP	0.00	170.59			
OFF-MW-6 (upper)*	01/07/08	194.24	Not Installed	77.50	NM	NP	0.00	NM	77.5	3423.73	6287.66
	07/21/08	194.24	34.50	77.50	43.00	NP	0.00	159.74			
	09/27/08	194.24	23.75	77.50	53.75	NP	0.00	170.49			
OFF-MW-7 (upper)*	01/07/08	185.91	Not Installed	56.50	NM	NP	0.00	NM	56.5	2447.83	4999.26
	07/22/08	185.91	27.50	56.50	29.00	NP	0.00	158.41			
	09/26/08	185.91	16.25	56.50	40.25	NP	0.00	169.66			
OFF-MW-8 (upper)*	01/07/08	189.17	Not Installed	53.00	NM	NP	0.00	NM	53	1946.03	6383.22
	07/22/08	189.17	32.00	53.00	21.00	NP	0.00	157.17			
	09/28/08	189.17	19.30	53.00	33.70	NP	0.00	169.87			
OFF-MW-9 (upper)*	01/07/08	Not Installed	Not Installed	Not Installed	NM	NP	0.00	NM	66.5		
	07/22/08	Not Installed	Not Installed	Not Installed	NM	NP	0.00	NM			
	09/28/08	Not Installed	Not Installed	Not Installed	NM	NP	0.00	NM			
	11/04/08	192.41	20.75	66.50	45.75	NP	0.00	171.66			
OFF-MW-10 (upper)*	01/07/08	Not Installed	Not Installed	Not Installed	NM	NP	0.00	NM	52.5		
	07/22/08	Not Installed	Not Installed	Not Installed	NM	NP	0.00	NM			
	09/28/08	Not Installed	Not Installed	Not Installed	NM	NP	0.00	NM			
	11/04/08	188.61	17.25	52.50	35.25	NP	0.00	171.36			
OFF-MW-11 (upper)*	01/07/08	Not Installed	Not Installed	Not Installed	NM	NP	0.00	NM	57		
	07/22/08	Not Installed	Not Installed	Not Installed	NM	NP	0.00	NM			
	09/28/08	Not Installed	Not Installed	Not Installed	NM	NP	0.00	NM			
	11/04/08	185.57	14.50	56.50	42.00	NP	0.00	171.07			
Middle Alluvial Wells											
EMW-6	01/07/08	200.13	25.13	81.90	56.77	NP	0.00	175.00	NM	4309.08	5599.86
	07/22/08	200.13	38.79	81.90	43.11	NP	0.00	161.34			
	09/23/08	200.13	29.95	81.90	51.95	NP	0.00	170.18			
MW-22 (middle)*	01/07/08	200.00	Not Installed	88.50	NM	NP	0.00	NM	85.5	4630.75	5988.35
	07/21/08	200.00	38.50	88.50	50.00	NP	0.00	161.50			
	09/28/08	200.00	29.25	88.50	59.25	NP	0.00	170.75			
MW-23	01/07/08	199.36	Not Installed	99.30	NM	NP	0.00	NM	89-99	5033.54	4945.19
	07/22/08	199.36	36.79	99.30	62.51	NP	0.00	162.57			
	09/24/08	199.36	28.99	99.30	70.31	NP	0.00	170.37			
MW-25 (middle)*	01/07/08	200.24	Not Installed	84.50	NM	NP	0.00	NM	84.5	5393.20	5512.27
	07/21/08	200.24	37.50	84.50	47.00	NP	0.00	162.74			
	09/27/08	200.24	29.25	84.50	55.25	NP	0.00	170.99			
MW-26 (middle)*	01/07/08	Not Installed	Not Installed	Not Installed	NM	NP	0.00	NM	105		
	07/22/08	Not Installed	Not Installed	Not Installed	NM	NP	0.00	NM			
	09/28/08	Not Installed	Not Installed	Not Installed	NM	NP	0.00	NM			
	11/03/08	198.37	25.60	105.00	79.40	NP	0.00	172.77			
OFF-MW-2	01/07/08	Not Surveyed	NM	NM	NM	NP	0.00	NM	90-110		
	07/22/08	Not Surveyed	NM	NM	NM	NP	0.00	NM			
	09/28/08	Not Surveyed	NM	NM	NM	NP	0.00	NM			

TABLE 4
GROUNDWATER ELEVATION DATA
CEDAR CHEMICAL CORPORATION
HELENA-WEST HELENA, ARKANSAS

Well Description	Date	Top of Casing Elevation (feet)	Depth to Water (feet)	Total Depth	Water Column Thickness	Depth to Phase Separated Hydrocarbon (feet)	Phase Separated Hydrocarbon Thickness (feet)	Corrected Groundwater Elevation (feet)	Screened Interval (ft-bgs)	Northing	Easting
OFF-MW-4	01/07/08	184.03	NM	NM	NM	NP	0.00	NM	79-99	1348.94	4781.99
	04/22/08	184.03	NM	NM	NM	NP	0.00	NM			
	07/22/08	184.03	NM	NM	NM	NP	0.00	NM			
	09/28/08	184.03	NM	NM	NM	NP	0.00	NM			
	11/05/08	184.03	13.07	101.40	88.33	NP	0.00	170.96			
OFF-MW-5 (middle)*	01/07/08	194.84	Not Installed	102.50	NM	NP	0.00	NM	102.5	3878.62	7212.43
	07/21/08	194.84	34.50	102.50	68.00	NP	0.00	160.34			
	09/26/08	194.84	24.25	102.50	78.25	NP	0.00	170.59			
OFF-MW-6 (middle)*	01/07/08	194.24	Not Installed	92.20	NM	NP	0.00	NM	92	3423.73	6287.66
	07/21/08	194.24	34.50	92.20	57.70	NP	0.00	159.74			
	09/27/08	194.24	23.75	92.20	68.45	NP	0.00	170.49			
OFF-MW-7 (middle)*	01/07/08	185.91	Not Installed	86.50	NM	NP	0.00	NM	86.5	2447.83	4999.26
	07/22/08	185.91	27.50	86.50	59.00	NP	0.00	158.41			
	09/26/08	185.91	16.25	86.50	70.25	NP	0.00	169.66			
OFF-MW-8 (middle)*	01/07/08	189.17	Not Installed	85.00	NM	NP	0.00	NM	85	1946.03	6383.22
	07/22/08	189.17	32.00	85.00	53.00	NP	0.00	157.17			
	09/28/08	189.17	19.30	85.00	65.70	NP	0.00	169.87			
OFF-MW-9 (middle)*	01/07/08	Not Installed	Not Installed	Not Installed	NM	NP	0.00	NM	95.5		
	07/22/08	Not Installed	Not Installed	Not Installed	NM	NP	0.00	NM			
	09/28/08	Not Installed	Not Installed	Not Installed	NM	NP	0.00	NM			
	11/04/08	192.41	20.75	95.50	74.75	NP	0.00	171.66			
OFF-MW-10 (middle)*	01/07/08	Not Installed	Not Installed	Not Installed	NM	NP	0.00	NM	81.5		
	07/22/08	Not Installed	Not Installed	Not Installed	NM	NP	0.00	NM			
	09/28/08	Not Installed	Not Installed	Not Installed	NM	NP	0.00	NM			
	11/04/08	188.61	17.25	81.50	64.25	NP	0.00	171.36			
OFF-MW-11 (middle)*	01/07/08	Not Installed	Not Installed	Not Installed	NM	NP	0.00	NM	83.5		
	07/22/08	Not Installed	Not Installed	Not Installed	NM	NP	0.00	NM			
	09/28/08	Not Installed	Not Installed	Not Installed	NM	NP	0.00	NM			
	11/04/08	185.57	14.50	83.50	69.00	NP	0.00	171.07			
Lower Alluvial Wells											
2MW-7 (CED2-MW-7)	01/07/08	199.31	23.85	148.32	124.47	NP	0.00	175.46	138-148	5042.53	4952.44
	07/22/08	199.31	36.76	148.32	111.56	NP	0.00	162.55			
	09/24/08	199.31	28.98	148.32	119.34	NP	0.00	170.33			
4MW-4 (CED4-MW-4)	01/07/08	202.58	27.63	153.50	125.87	NP	0.00	174.95	143-153	4361.98	5651.92
	07/22/08	202.58	41.28	153.50	112.22	NP	0.00	161.30			
	09/23/08	202.58	32.46	153.50	121.04	NP	0.00	170.12			
MW-22 (lower)*	01/07/08	200.00	Not Installed	148.20	NM	NP	0.00	NM	148	4630.75	5988.35
	07/21/08	200.00	38.50	148.20	109.70	NP	0.00	161.50			
	09/28/08	200.00	29.25	148.20	118.95	NP	0.00	170.75			
MW-25 (lower)*	01/07/08	200.24	Not Installed	112.50	NM	NP	0.00	NM	112.5	5393.20	5512.27
	07/21/08	200.24	37.50	112.50	75.00	NP	0.00	162.74			
	09/27/08	200.24	29.25	112.50	83.25	NP	0.00	170.99			
MW-26 (lower)*	01/07/08	Not Installed	Not Installed	Not Installed	NM	NP	0.00	NM	154		
	07/22/08	Not Installed	Not Installed	Not Installed	NM	NP	0.00	NM			
	09/28/08	Not Installed	Not Installed	Not Installed	NM	NP	0.00	NM			
	11/03/08	198.37	25.60	154.00	128.40	NP	0.00	172.77			
OFF-MW-5 (lower)*	01/07/08	194.84	Not Installed	144.50	NM	NP	0.00	NM	144.5	3878.62	7212.43
	07/21/08	194.84	34.50	144.50	110.00	NP	0.00	160.34			
	09/26/08	194.84	24.25	144.50	120.25	NP	0.00	170.59			
OFF-MW-6 (lower)*	01/07/08	194.24	Not Installed	117.50	NM	NP	0.00	NM	117.5	3423.73	6287.66
	07/21/08	194.24	34.50	117.50	83.00	NP	0.00	159.74			
	09/27/08	194.24	23.75	117.50	93.75	NP	0.00	170.49			
OFF-MW-7 (lower)*	01/07/08	185.91	Not Installed	116.50	NM	NP	0.00	NM	117.5	2447.83	4999.26
	07/22/08	185.91	27.50	116.50	89.00	NP	0.00	158.41			
	09/26/08	185.91	16.25	116.50	100.25	NP	0.00	169.66			
OFF-MW-8 (lower)*	01/07/08	189.17	Not Installed	115.00	NM	NP	0.00	NM	115	1946.03	6383.22
	07/22/08	189.17	32.00	115.00	83.00	NP	0.00	157.17			
	09/28/08	189.17	19.30	115.00	95.70	NP	0.00	169.87			
OFF-MW-9 (lower)*	01/07/08	Not Installed	Not Installed	Not Installed	NM	NP	0.00	NM	143.5		
	07/22/08	Not Installed	Not Installed	Not Installed	NM	NP	0.00	NM			
	09/28/08	Not Installed	Not Installed	Not Installed	NM	NP	0.00	NM			
	11/04/08	192.41	20.75	143.50	122.75	NP	0.00	171.66			
OFF-MW-10 (lower)*	01/07/08	Not Installed	Not Installed	Not Installed	NM	NP	0.00	NM	134.5		
	07/22/08	Not Installed	Not Installed	Not Installed	NM	NP	0.00	NM			
	09/28/08	Not Installed	Not Installed	Not Installed	NM	NP	0.00	NM			
	11/04/08	188.61	17.25	134.50	117.25	NP	0.00	171.36			
OFF-MW-11 (lower)*	01/07/08	Not Installed	Not Installed	Not Installed	NM	NP	0.00	NM	132.5		
	07/22/08	Not Installed	Not Installed	Not Installed	NM	NP	0.00	NM			
	09/28/08	Not Installed	Not Installed	Not Installed	NM	NP	0.00	NM			
	11/04/08	185.57	14.50	132.50	118.00	NP	0.00	171.07			
OFF-MW-1	01/07/08	Not Surveyed	NM	NM	NM	NP	0.00	NM	126-136		
	07/22/08	Not Surveyed	NM	NM	NM	NP	0.00	NM			
	09/28/08	Not Surveyed	NM	NM	NM	NP	0.00	NM			
OFF-MW-3	01/07/08	183.95	NM	NM	NM	NP	0.00	NM	108-128	1349.11	4785.96
	04/22/08	183.95	NM	NM	NM	NP	0.00	NM			
	07/22/08	183.95	NM	NM	NM	NP	0.00	NM			
	09/28/08	183.95	NM	NM	NM	NP	0.00	NM			
	11/05/08	183.95	13.03	131.62	118.59	NP	0.00	170.92			

Notes:
Specific gravity of 0.80 used to calculate corrected groundwater elevation.
"NP" represents No Product measured.
"NM" represents Not Measured.
Due to equipment limitations, gauging data for all CMT wells is rounded to the nearest .25 foot.
"*" indicates well was completed as a CMT well.

TABLE 5

Estimated Hydraulic Conductivity

TABLE 5
ESTIMATED HYDRAULIC CONDUCTIVITY VALUES
CEDAR CHEMICAL CORPORATION
HELENA-WEST HELENA, ARKANSAS

SLUG TEST RESULTS - PERCHED ZONE

Well ID	K (ft/sec)	K (cm/sec)	K (ft/day)	K (gpd/ft^2)	Groundwater Avg. Pore Velocity (ft/day)	Groundwater Avg. Pore Velocity (ft/yr)
1MW-1	3.41E-06	1.0E-04	0.295	2.2	0.02	7.5
1MW-3	3.54E-06	1.1E-04	0.306	2.3	0.02	8
1MW-5	1.11E-05	3.4E-04	0.959	7.2	0.07	25
MW-16	2.70E-06	8.2E-05	0.233	1.7	0.02	6
EMW-6B	2.43E-06	7E-05	0.210	1.6	0.01	5
average	4.6E-06	1.4E-04	0.40	3.0	0.03	10

STEP-DRAWDOWN TEST RESULTS - ALLUVIAL AQUIFER

Well ID	K (ft/sec)	K (cm/sec)	K (ft/day)	K (gpd/ft^2)	Groundwater Avg. Pore Velocity (ft/day) July 2008	Groundwater Avg. Pore Velocity (ft/yr) July 2008	Groundwater Avg. Pore Velocity (ft/day) September 2008	Groundwater Avg. Pore Velocity (ft/yr) September 2008
2MW-7	6.2E-05	1.9E-03	5.4	40	0.03	12.6	0.01	2.0
4MW-3	4.2E-04	1.3E-02	37	274	0.23	85	0.04	13
9MW-1	2.8E-04	8.6E-03	24.3	182	0.16	57	0.02	9
EMW-6A	3.5E-04	1.1E-02	30.3	227	0.19	71	0.03	11
MW-23	2.0E-03	6.1E-02	172.1	1287	1.10	402	0.17	63
average	6.2E-04	1.9E-02	53.73	402	0.34	126	0.05	20

An average gradient of 0.0175 ft/ft was used for the perched zone.
An average July 2008 groundwater gradient of 0.0016 ft/ft was used for the alluvial aquifer.
An average September 2008 groundwater gradient of 0.00025 ft/ft was used for the alluvial aquifer.
A typical porosity of 25% for sand was used.

TABLE 6

Drum Vault Soil Analytical Summary

Table 6
Drum Vault Soil Analytical Results
Cedar Chemical Corporation
Helena - West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Residential Soil (mg/kg)	Outdoor Worker Soil (mg/kg)	DAF1 (mg/kg)	HOLE #1 VAULT 7/9/2008	VAULT HOLE #2 7/9/2008	VAULT HOLE #3 7/10/2008	VAULT HOLE #4 7/9/2008
	Metals									
6020	Aluminum	7429-90-5	MG/KG	76000	100000	--	5030 J	3030 J	9760 J	2290 J
6020	Antimony	7440-36-0	MG/KG	31	450	0.3	0.45 J	0.054 J	< 0.042 J	< 0.031 J
6020	Arsenic	7440-38-2	MG/KG	0.39	1.8	1	13.9 J	2.9 J	8.2 J	43.6 J
6020	Barium	7440-39-3	MG/KG	16000	100000	82	65.6 J	37.4 J	126 J	30.9 J
6020	Beryllium	7440-41-7	MG/KG	150	2200	3	0.27 J	0.17 J	0.49 J	0.12 J
6020	Cadmium	7440-43-9	MG/KG	39	560	0.4	0.14 J	0.076 J	0.19 J	0.056 J
6020	Calcium	7440-70-2	MG/KG	--	--	--	7720 J	6630 J	5970 J	12500 J
6020	Chromium	7440-47-3	MG/KG	210	500	2	7.6 J	7.6 J	14.0 J	4.6 J
6020	Cobalt	7440-48-4	MG/KG	900	2100	--	10.3 J	5.5 J	16.9 J	6.9 J
6020	Copper	7440-50-8	MG/KG	2900	42000	--	5.5 J	3.3 J	13.6 J	2.3 J
6020	Iron	7439-89-6	MG/KG	55000	100000	--	7690 J	6900 J	16200 J	4460 J
6020	Lead	7439-92-1	MG/KG	400	800	--	5.3 J	4.1 J	10.4 J	3.5 J
6020	Magnesium	7439-95-4	MG/KG	--	--	--	2120 J	2310 J	3330 J	1700 J
6020	Manganese	7439-96-5	MG/KG	3200	35000	--	194 J	132 J	484 J	69.0 J
6020	Nickel	7440-02-0	MG/KG	1600	23000	7	11.5 J	12.8 J	19.9 J	8.1 J
6020	Potassium	7440-09-7	MG/KG	--	--	--	723 J	380 J	1440 J	413 J
6020	Selenium	7782-49-2	MG/KG	390	5700	0.3	0.21 J	0.20 J	0.30 J	< 0.10 J
6020	Silver	7440-22-4	MG/KG	390	5700	2	0.78 UBJ	0.025 J	1.1 UB	0.82 UB
6020	Sodium	7440-23-5	MG/KG	--	--	--	356 J	241 J	568 J	188 J
6020	Thallium	7440-28-0	MG/KG	5.5	80	0.4	0.11 J	0.057 J	0.26 J	0.041 J
6020	Vanadium	7440-62-2	MG/KG	390	5700	300	14.0 J	10.2 J	28.8 J	7.3 J
6020	Zinc	7440-66-6	MG/KG	23000	100000	620	28.1 J	24.3 J	55.4 J	15.6 J
	Organochlorine Pesticides									
8081A	4,4'-DDD	72-54-8	MG/KG	2.4	11	0.8	< 0.067 J	< 32 J	< 0.65 J	< 0.64 J
8081A	4,4'-DDE	72-55-9	MG/KG	1.7	7.8	3	< 0.029 J	< 14 J	< 0.28 J	< 0.28 J
8081A	4,4'-DDT	50-29-3	MG/KG	1.7	7.8	2	< 0.072 J	< 35 J	< 0.71 J	< 0.69 J
8081A	Aldrin	309-00-2	MG/KG	0.029	0.11	0.02	< 0.031 J	< 15 J	< 0.30 J	< 0.29 J
8081A	alpha-BHC	319-84-6	MG/KG	0.09	0.4	0.00003	< 0.026 J	< 13 J	< 0.26 J	< 0.25 J
8081A	alpha-Chlordane	5103-71-9	MG/KG	--	--	--	< 0.04 J	< 19 J	1.5 J	< 0.38
8081A	beta-BHC	319-85-7	MG/KG	0.32	1.4	0.0001	< 0.035 J	< 17 J	< 0.34 J	< 0.33 J
8081A	Chlordane (technical)	57-74-9	MG/KG	1.6	7.2	0.5	< 0.96 J	< 460 J	< 9.3 J	< 9.1 J
8081A	delta-BHC	319-86-8	MG/KG	--	--	--	0.065 J	< 9.9 J	< 0.20 J	< 0.19
8081A	Dieldrin	60-57-1	MG/KG	0.03	0.12	0.0002	< 0.026 J	< 12 J	< 0.25 J	< 0.25 J
8081A	Endosulfan I	959-98-8	MG/KG	--	--	--	< 0.022 J	< 10 J	< 0.21 J	< 0.21
8081A	Endosulfan II	33213-65-9	MG/KG	--	--	--	< 0.035 J	< 17 J	< 0.34 J	< 0.34
8081A	Endosulfan sulfate	1031-07-8	MG/KG	--	--	--	0.094 J	< 16 J	< 0.33 J	< 0.32
8081A	Endrin	72-20-8	MG/KG	18	210	0.05	< 0.038 J	< 18 J	< 0.37 J	< 0.36 J
8081A	Endrin aldehyde	7421-93-4	MG/KG	--	--	--	< 0.026 J	< 13 J	< 0.25 J	< 0.25
8081A	Endrin ketone	53494-70-5	MG/KG	--	--	--	0.075 J	< 13 J	< 0.25 J	< 0.25
8081A	gamma-BHC (Lindane)	58-89-9	MG/KG	0.44	1.9	0.0005	< 0.018 J	< 8.5 J	< 0.17 J	0.27 J
8081A	gamma-Chlordane	5103-74-2	MG/KG	--	--	--	< 0.033 J	< 16 J	< 0.32 J	< 0.31
8081A	Heptachlor	76-44-8	MG/KG	0.11	0.43	1	< 0.026 J	< 13 J	< 0.26 J	< 0.25 J
8081A	Heptachlor epoxide	1024-57-3	MG/KG	0.053	0.21	0.03	< 0.052 J	< 25 J	< 0.51 J	< 0.5 J
8081A	Methoxychlor	72-43-5	MG/KG	310	3400	8	2.5 J	910 J	36 J	26 J
8081A	Toxaphene	8001-35-2	MG/KG	0.44	1.7	2	< 1.9 J	< 940 J	< 19 J	< 18 J

Table 6
Drum Vault Soil Analytical Results
Cedar Chemical Corporation
Helena - West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Residential Soil (mg/kg)	Outdoor Worker Soil (mg/kg)	DAF1 (mg/kg)	HOLE #1 VAULT 7/9/2008	VAULT HOLE #2 7/9/2008	VAULT HOLE #3 7/10/2008	VAULT HOLE #4 7/9/2008
	Herbicides									
8151A	Dinoseb	88-85-7	MG/KG	61	680	--	0.32 J	0.085 J	0.072 UBJ	< 0.022 J
	Volatile Organic Compounds (VOCs)									
8260B	1,1,1-Trichloroethane	71-55-6	MG/KG	1400	1400	0.1	< 0.00093 J	< 12 J	< 1.2 J	< 6.0 J
8260B	1,1,2,2-Tetrachloroethane	79-34-5	MG/KG	0.38	0.97	0.0002	< 0.0038 J	< 17 J	< 1.7 J	< 8.3 J
8260B	1,1,2-Trichloroethane	79-00-5	MG/KG	0.84	2.1	0.0009	< 0.00063 J	< 14 J	< 1.4 J	< 6.7 J
8260B	1,1-Dichloroethane	75-34-3	MG/KG	850	2300	1	< 0.00075 J	< 13 J	< 1.3 J	< 6.4 J
8260B	1,1-Dichloroethene	75-35-4	MG/KG	280	470	0.003	< 0.001 J	< 13 J	< 1.3 J	< 6.6 J
8260B	1,2-Dibromoethane (EDB)	106-93-4	MG/KG	0.028	0.07	--	< 0.00091 J	< 15 J	< 1.5 J	< 7.3 J
8260B	1,2-Dichlorobenzene	95-50-1	MG/KG	280	370	0.9	< 0.0021 J	< 14 J	3.5 J	17 J
8260B	1,2-Dichloroethane	107-06-2	MG/KG	0.35	0.84	0.001	< 0.00092 J	< 14 J	< 1.4 J	< 7.1 J
8260B	1,2-Dichloroethene (total)	540-59-0	MG/KG	--	--	--	< 0.0015 J	< 25	< 2.5	< 12 J
8260B	1,2-Dichloropropane	78-87-5	MG/KG	0.35	0.85	0.001	< 0.00082 J	< 15 J	< 1.5 J	< 7.5 J
8260B	1,3-Dichlorobenzene	541-73-1	MG/KG	69	140	--	0.0015 J	< 13 J	< 1.3 J	< 6.2 J
8260B	1,4-Dichlorobenzene	106-46-7	MG/KG	3.2	8.1	0.1	0.013 J	< 13 J	< 1.3 J	7.0 J
8260B	2-Butanone (MEK)	78-93-3	MG/KG	32000	34000	--	< 0.0022 J	< 26 J	< 2.6 J	< 13 J
8260B	2-Chloroethyl vinyl ether	110-75-8	MG/KG	--	--	--	< 0.00068 J	< 15	< 1.5	< 7.5 J
8260B	2-Hexanone	591-78-6	MG/KG	--	--	--	< 0.0036 J	< 16	< 1.6	< 7.8 J
8260B	4-Methyl-2-pentanone (MIBK)	108-10-1	MG/KG	5800	17000	--	< 0.002 J	< 17 J	24 J	21 J
8260B	Acetone	67-64-1	MG/KG	14000	60000	0.8	0.098 UB	740 J	1300 J	270 J
8260B	Benzene	71-43-2	MG/KG	0.66	1.6	0.002	< 0.00081 J	< 14 J	< 1.4 J	< 7.1 J
8260B	Bromobenzene	108-86-1	MG/KG	73	120	--	< 0.0007 J	< 14 J	< 1.4 J	< 6.7 J
8260B	Bromochloromethane	74-97-5	MG/KG	--	--	--	< 0.00096 J	< 12	< 1.2	< 6.0 J
8260B	Bromodichloromethane	75-27-4	MG/KG	1	2.6	0.03	< 0.00075 J	< 16 J	< 1.6 J	< 7.7 J
8260B	Bromoform	75-25-2	MG/KG	62	240	0.04	< 0.0013 J	< 22 J	< 2.2 J	< 11 J
8260B	Bromomethane	74-83-9	MG/KG	3.9	15	0.01	< 0.00079 J	< 13 J	< 1.3 J	< 6.4 J
8260B	Carbon disulfide	75-15-0	MG/KG	720	720	2	< 0.00099 J	< 12 J	< 1.2 J	< 6.0 J
8260B	Carbon tetrachloride	56-23-5	MG/KG	0.24	0.58	0.003	< 0.0014 J	< 13 J	< 1.3 J	< 6.6 J
8260B	Chlorobenzene	108-90-7	MG/KG	270	500	0.07	< 0.0007 J	< 13 J	< 1.3 J	< 6.3 J
8260B	Chloroethane	75-00-3	MG/KG	3	7.2	--	< 0.00084 J	< 13 J	< 1.3 J	< 6.4 J
8260B	Chloroform	67-66-3	MG/KG	0.25	0.58	0.03	< 0.00088 J	< 12 J	< 1.2 J	< 6.0 J
8260B	Chloromethane	74-87-3	MG/KG	1.3	3	--	< 0.00075 J	< 14 J	< 1.4 J	< 6.9 J
8260B	cis-1,2-Dichloroethene	156-59-2	MG/KG	43	160	0.02	< 0.00076 J	< 13 J	< 1.3 J	< 6.2 J
8260B	cis-1,3-Dichloropropene	10061-01-5	MG/KG	0.7	1.8	0.0002	< 0.0007 J	< 14 J	< 1.4 J	< 7.0 J
8260B	Dibromochloromethane	124-48-1	MG/KG	1	2.6	0.02	< 0.00079 J	< 13 J	< 1.3 J	< 6.4 J
8260B	Dibromomethane	74-95-3	MG/KG	140	590	--	< 0.0011 J	< 15 J	< 1.5 J	< 7.3 J
8260B	Ethylbenzene	100-41-4	MG/KG	230	230	0.7	< 0.001 J	< 13 J	11 J	40 J
8260B	Methylene chloride	75-09-2	MG/KG	8.9	22	0.001	< 0.0011 J	< 13 J	< 1.3 J	< 6.6 J
8260B	m-Xylene & p-Xylene	136777-61-2	MG/KG	--	--	--	< 0.0019 J	38 J	89 J	120 J
8260B	o-Xylene	95-47-6	MG/KG	280	280	9	< 0.00069 J	< 12 J	27 J	21 J
8260B	Styrene	100-42-5	MG/KG	1700	1700	0.2	< 0.00064 J	< 13 J	< 1.3 J	< 6.3 J
8260B	Tetrachloroethene	127-18-4	MG/KG	0.55	1.7	0.003	0.010 J	< 14 J	< 1.4 J	< 6.9 J
8260B	Toluene	108-88-3	MG/KG	520	520	0.6	0.0024 J	510 J	490 J	420 J
8260B	trans-1,2-Dichloroethene	156-60-5	MG/KG	120	200	0.03	< 0.00083 J	< 12 J	< 1.2 J	< 6.1 J
8260B	trans-1,3-Dichloropropene	10061-02-6	MG/KG	0.7	1.8	0.0002	< 0.00077 J	< 13 J	< 1.3 J	< 6.3 J
8260B	Trichloroethene	79-01-6	MG/KG	0.043	0.1	0.003	< 0.0011 J	< 13 J	< 1.3 J	< 6.5 J

Table 6
Drum Vault Soil Analytical Results
Cedar Chemical Corporation
Helena - West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Residential Soil (mg/kg)	Outdoor Worker Soil (mg/kg)	DAF1 (mg/kg)	HOLE #1 VAULT 7/9/2008	VAULT HOLE #2 7/9/2008	VAULT HOLE #3 7/10/2008	VAULT HOLE #4 7/9/2008
8260B	Trichlorofluoromethane	75-69-4	MG/KG	390	1400	--	< 0.0012 J	< 13 J	< 1.3 J	< 6.3 J
8260B	Vinyl acetate	108-05-4	MG/KG	430	1600	8	< 0.0013 J	< 19 J	< 1.9 J	< 9.6 J
8260B	Vinyl chloride	75-01-4	MG/KG	0.043	0.86	0.0007	< 0.00092 J	< 13 J	< 1.3 J	< 6.6 J
8260B	Xylenes (total)	1330-20-7	MG/KG	210	210	10	< 0.0026 J	46 J	120 J	140 J
Semivolatile Organic Compounds (SVOCs)										
8270C	1,2,4-Trichlorobenzene	120-82-1	MG/KG	140	260	0.3	0.66 J	1.9 J	5.2 J	3.6 J
8270C	1,2-Dichlorobenzene	95-50-1	MG/KG	280	370	0.9	0.068 J	1.7 J	1.6 J	0.98 J
8270C	1,3-Dichlorobenzene	541-73-1	MG/KG	69	140	--	0.056 J	< 0.041 J	< 0.41 J	< 0.04 J
8270C	1,4-Dichlorobenzene	106-46-7	MG/KG	3.2	8.1	0.1	0.55 J	0.18 J	0.43 J	0.50 J
8270C	2,4,5-Trichlorophenol	95-95-4	MG/KG	6100	68000	14	< 0.042 J	< 0.041 J	< 0.41 J	< 0.04 J
8270C	2,4,6-Trichlorophenol	88-06-2	MG/KG	44	170	0.008	< 0.054 J	< 0.052 J	< 0.52 J	< 0.051 J
8270C	2,4-Dichlorophenol	120-83-2	MG/KG	180	2100	0.05	< 0.053 J	< 0.052 J	< 0.52 J	< 0.051 J
8270C	2,4-Dimethylphenol	105-67-9	MG/KG	1200	14000	0.4	< 0.096 J	< 0.094 J	< 0.94 J	< 0.092 J
8270C	2,4-Dinitrophenol	51-28-5	MG/KG	120	1400	0.01	< 0.22 J	< 0.21 J	< 2.1 J	< 0.21 J
8270C	2,4-Dinitrotoluene	121-14-2	MG/KG	120	1400	0.00004	< 0.19 J	< 0.19 J	< 1.9 J	< 0.18 J
8270C	2,6-Dinitrotoluene	606-20-2	MG/KG	61	680	0.00003	< 0.05 J	< 0.049 J	< 0.49 J	< 0.048 J
8270C	2-Chloronaphthalene	91-58-7	MG/KG	3900	26000	--	< 0.038 J	< 0.037 J	< 0.37 J	< 0.037 J
8270C	2-Chlorophenol	95-57-8	MG/KG	64	260	0.2	< 0.036J	< 0.035 J	< 0.35 J	< 0.034 J
8270C	2-Methylnaphthalene	91-57-6	MG/KG	--	--	--	< 0.039 J	< 0.038 J	< 0.38	< 0.038 J
8270C	2-Methylphenol	95-48-7	MG/KG	3100	34000	0.8	< 0.049 J	0.89 J	< 0.48 J	< 0.047 J
8270C	2-Nitroaniline	88-74-4	MG/KG	180	2000	--	< 0.052 J	< 0.051 J	< 0.51 J	< 0.05 J
8270C	2-Nitrophenol	88-75-5	MG/KG	--	--	--	< 0.077	< 0.075 J	< 0.75	< 0.074
8270C	3,3'-Dichlorobenzidine	91-94-1	MG/KG	1.1	4.3	0.0003	< 0.029 J	< 0.028 J	< 0.29 J	< 0.028 J
8270C	3,4-Dichloroaniline	95-76-1	MG/KG	--	--	--	5.5 J	230 J	12	100 J
8270C	3-Methylphenol & 4-Methylphenol	65794-96-9	MG/KG	310	3400	--	< 0.079 J	0.33 J	< 0.77 J	0.12 J
8270C	3-Nitroaniline	99-09-2	MG/KG	--	--	--	< 0.039 J	< 0.038 J	< 0.38	< 0.037 J
8270C	4,6-Dinitro-2-methylphenol	534-52-1	MG/KG	--	--	--	< 0.17 J	< 0.17 J	< 1.7	< 0.17 J
8270C	4-Bromophenyl phenyl ether	101-55-3	MG/KG	--	--	--	< 0.037 J	< 0.036 J	< 0.36	< 0.035 J
8270C	4-Chloro-3-methylphenol	59-50-7	MG/KG	--	--	--	< 0.065 J	< 0.063 J	< 0.63	< 0.062 J
8270C	4-Chloroaniline	106-47-8	MG/KG	240	2700	0.03	11 J	5.0 J	< 0.45 J	< 0.044 J
8270C	4-Chlorophenyl phenyl ether	7005-72-3	MG/KG	--	--	--	< 0.031 J	< 0.03 J	< 0.31	< 0.03 J
8270C	4-Nitroaniline	100-01-6	MG/KG	--	--	--	< 0.12 J	< 0.12 J	< 1.2	< 0.12 J
8270C	4-Nitrophenol	100-02-7	MG/KG	490	5500	--	< 0.19 J	< 0.18 J	< 1.8 J	< 0.18 J
8270C	Acenaphthene	83-32-9	MG/KG	3700	33000	29	< 0.043 J	< 0.041 J	< 0.41 J	< 0.041 J
8270C	Acenaphthylene	208-96-8	MG/KG	--	--	--	< 0.04 J	< 0.039 J	< 0.39	< 0.038 J
8270C	Aniline	62-53-3	MG/KG	85	340	--	< 0.039 J	< 0.038 J	< 0.38 J	0.79 J
8270C	Anthracene	120-12-7	MG/KG	22000	100000	590	< 0.03 J	< 0.029 J	< 0.29 J	< 0.029 J
8270C	Benzo(a)anthracene	56-55-3	MG/KG	0.15	2.3	0.08	< 0.024 J	< 0.024 J	< 0.24 J	< 0.023 J
8270C	Benzo(a)pyrene	50-32-8	MG/KG	0.015	0.23	0.4	< 0.028 J	< 0.027 J	< 0.27 J	< 0.027 J
8270C	Benzo(b)fluoranthene	205-99-2	MG/KG	0.15	2.3	0.2	< 0.064 J	< 0.062 J	< 0.62 J	< 0.061 J
8270C	Benzo(ghi)perylene	191-24-2	MG/KG	--	--	--	< 0.033 J	< 0.032 J	< 0.32 J	< 0.031 J
8270C	Benzo(k)fluoranthene	207-08-9	MG/KG	1.5	23	2	< 0.049 J	< 0.047 J	< 0.47 J	< 0.046 J
8270C	Benzoic acid	65-85-0	MG/KG	100000	100000	20	0.58 J	2.2 J	19 J	1.1 J
8270C	Benzyl alcohol	100-51-6	MG/KG	18000	100000	--	< 0.1 J	< 0.099 J	< 0.99 J	< 0.097 J
8270C	bis(2-Chloroethoxy)methane	111-91-1	MG/KG	--	--	--	< 0.04 J	< 0.039 J	< 0.39 J	< 0.038 J
8270C	bis(2-Chloroethyl) ether	111-44-4	MG/KG	0.21	0.62	0.00002	< 0.042 J	< 0.041 J	< 0.41 J	< 0.04 J

Table 6
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Cedar Chemical Corporation
Helena - West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Residential Soil (mg/kg)	Outdoor Worker Soil (mg/kg)	DAF1 (mg/kg)	HOLE #1 VAULT 7/9/2008	VAULT HOLE #2 7/9/2008	VAULT HOLE #3 7/10/2008	VAULT HOLE #4 7/9/2008
8270C	bis(2-Chloroisopropyl) ether	108-60-1	MG/KG	2.9	8.2	--	< 0.033 J	< 0.032 J	< 0.33 J	< 0.032 J
8270C	bis(2-Ethylhexyl) phthalate	117-81-7	MG/KG	35	140	180	0.13 J	0.53 J	0.54 J	0.71 J
8270C	Butyl benzyl phthalate	85-68-7	MG/KG	240	240	810	< 0.032 J	< 0.031 J	< 0.31 J	< 0.031 J
8270C	Chrysene	218-01-9	MG/KG	15	230	8	0.40 UB	< 0.027 J	0.47 J	0.39 UB
8270C	Dibenz(a,h)anthracene	53-70-3	MG/KG	0.015	0.23	0.08	< 0.1 J	< 0.1 J	< 1 J	< 0.098 J
8270C	Dibenzofuran	132-64-9	MG/KG	150	1700	--	< 0.044 J	< 0.043 J	< 0.43 J	< 0.042 J
8270C	Diethyl phthalate	84-66-2	MG/KG	49000	100000	--	< 0.026 J	< 0.026 J	< 0.26 J	< 0.025 J
8270C	Dimethyl phthalate	131-11-3	MG/KG	100000	100000	--	< 0.029 J	< 0.028 J	6.7 J	< 0.028 J
8270C	Di-n-butyl phthalate	84-74-2	MG/KG	6100	68000	270	< 0.03 J	< 0.029 J	< 0.29 J	0.030 J
8270C	Di-n-octyl phthalate	117-84-0	MG/KG	--	--	10000	< 0.15 J	0.98 J	< 1.4 J	< 0.14 J
8270C	Dinoseb	88-85-7	MG/KG	61	680	--	2.5 J	1.8 J	3.3 J	0.34 J
8270C	Fluoranthene	206-44-0	MG/KG	2300	24000	210	< 0.03 J	< 0.029 J	< 0.29 J	< 0.029 J
8270C	Fluorene	86-73-7	MG/KG	2600	26000	28	< 0.028 J	0.075 J	< 0.28 J	< 0.027 J
8270C	Hexachlorobenzene	118-74-1	MG/KG	0.3	1.2	0.1	< 0.034 J	< 0.033 J	< 0.33 J	< 0.033 J
8270C	Hexachlorobutadiene	87-68-3	MG/KG	6.2	25	0.1	< 0.05 J	< 0.048 J	< 0.48 J	< 0.047 J
8270C	Hexachlorocyclopentadiene	77-47-4	MG/KG	370	4100	20	< 0.21 J	< 0.2 J	< 2 J	< 0.2 J
8270C	Hexachloroethane	67-72-1	MG/KG	35	140	0.02	< 0.053 J	< 0.051 J	< 0.51 J	< 0.05 J
8270C	Indeno(1,2,3-cd)pyrene	193-39-5	MG/KG	0.15	2.3	0.7	< 0.063 J	< 0.061 J	< 0.62 J	< 0.06 J
8270C	Isophorone	78-59-1	MG/KG	510	2000	0.03	< 0.052 J	0.27 J	1.1 J	0.42 J
8270C	Naphthalene	91-20-3	MG/KG	120	210	4	< 0.039 J	< 0.038 J	< 0.38 J	< 0.037 J
8270C	Nitrobenzene	98-95-3	MG/KG	20	110	0.007	< 0.06 J	< 0.058 J	< 0.59 J	< 0.057 J
8270C	N-Nitrosodi-n-propylamine	621-64-7	MG/KG	0.07	0.27	0.000002	< 0.03 J	< 0.029 J	< 0.29 J	< 0.028 J
8270C	N-Nitrosodiphenylamine	86-30-6	MG/KG	99	390	0.06	< 0.028 J	< 0.027 J	< 0.27 J	< 0.027 J
8270C	Pentachlorophenol	87-86-5	MG/KG	3	10	0.001	< 0.062 J	< 0.06 J	< 0.6 J	< 0.059 J
8270C	Phenanthrene	85-01-8	MG/KG	--	--	--	< 0.027 J	< 0.026 J	< 0.26 J	< 0.026 J
8270C	Phenol	108-95-2	MG/KG	18000	100000	5	0.52 J	1.3 J	0.45 J	0.25 J
8270C	Propanil	709-98-8	MG/KG	310	3400	--	0.57 J	160 J	260 J	190 J
8270C	Pyrene	129-00-0	MG/KG	2300	32000	210	< 0.029 J	< 0.028 J	< 0.28 J	< 0.027 J

Notes:

NA No MSSL is published for the analyte

-- No data available for reported analyte

< The analyte was not detected at the concentration given.

J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

UBJ Not detected substantially above the concentration reported in the laboratory or field blanks. Data point considered non-detect and the reported value is an approximate.

TABLE 7

Drum Vault Water Analytical Summary

Table 7
Drum Vault Water Sampling Analytical Results
Cedar Chemical Corporation
Helena - West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Primary Drinking Water Std (ug/L)	Secondary Drinking Water Std (ug/L)	TapWater MSSL (ug/l)	HOLE #1 VAULT WATER 7/9/2008
	Metals						
6020	Aluminum	7429-90-5	UG/L	--	50	37000	921 J
6020	Antimony	7440-36-0	UG/L	6	--	15	1.5 J
6020	Arsenic	7440-38-2	UG/L	10	--	0.045	146 J
6020	Barium	7440-39-3	UG/L	2000	--	7300	507 J
6020	Beryllium	7440-41-7	UG/L	4	--	73	0.23 J
6020	Cadmium	7440-43-9	UG/L	5	--	18	2.8 J
6020	Calcium	7440-70-2	UG/L	--	--	--	424000 J
6020	Chromium	7440-47-3	UG/L	100	--	--	6.1 J
6020	Cobalt	7440-48-4	UG/L	--	--	730	83.9 J
6020	Copper	7440-50-8	UG/L	1300	1000	1400	47.0 J
6020	Iron	7439-89-6	UG/L	--	300	26000	179000 J
6020	Lead	7439-92-1	UG/L	15	--	15	27.7 J
6020	Magnesium	7439-95-4	UG/L	--	--	--	64800 J
6020	Manganese	7439-96-5	UG/L	--	50	1700	13200 J
6020	Nickel	7440-02-0	UG/L	--	--	730	246 J
6020	Potassium	7440-09-7	UG/L	--	--	--	18000 J
6020	Selenium	7782-49-2	UG/L	50	--	180	2.6 J
6020	Silver	7440-22-4	UG/L	--	100	180	0.24 J
6020	Sodium	7440-23-5	UG/L	--	--	--	519000 J
6020	Thallium	7440-28-0	UG/L	2	--	2.6	0.088 J
6020	Vanadium	7440-62-2	UG/L	--	--	180	8.0 J
6020	Zinc	7440-66-6	UG/L	--	5000	11000	60.5 J
	Organochlorine Pesticides						
8081A	4,4'-DDD	72-54-8	UG/L	--	--	0.28	< 0.15 J
8081A	4,4'-DDE	72-55-9	UG/L	--	--	0.2	< 0.15 J
8081A	4,4'-DDT	50-29-3	UG/L	--	--	0.2	< 0.3 J
8081A	Aldrin	309-00-2	UG/L	--	--	0.004	< 0.12 J
8081A	alpha-BHC	319-84-6	UG/L	--	--	0.011	0.26 J
8081A	alpha-Chlordane	5103-71-9	UG/L	--	--	--	< 0.11 J
8081A	beta-BHC	319-85-7	UG/L	--	--	0.037	< 0.17 J
8081A	Chlordane (technical)	57-74-9	UG/L	2	--	0.19	< 2.8 J
8081A	delta-BHC	319-86-8	UG/L	--	--	--	< 0.12 J
8081A	Dieldrin	60-57-1	UG/L	--	--	0.0042	< 0.13 J
8081A	Endosulfan I	959-98-8	UG/L	--	--	--	< 0.12 J
8081A	Endosulfan II	33213-65-9	UG/L	--	--	--	< 0.14 J
8081A	Endosulfan sulfate	1031-07-8	UG/L	--	--	--	< 0.11 J
8081A	Endrin	72-20-8	UG/L	2	--	11	< 0.16 J
8081A	Endrin aldehyde	7421-93-4	UG/L	--	--	--	< 0.18 J
8081A	Endrin ketone	53494-70-5	UG/L	--	--	--	< 0.14 J
8081A	gamma-BHC (Lindane)	58-89-9	UG/L	0.2	--	0.052	< 0.14 J
8081A	gamma-Chlordane	5103-74-2	UG/L	--	--	--	< 0.18 J
8081A	Heptachlor	76-44-8	UG/L	0.4	--	0.015	< 0.15 J
8081A	Heptachlor epoxide	1024-57-3	UG/L	0.2	--	0.0074	< 0.15 J
8081A	Methoxychlor	72-43-5	UG/L	40	--	180	11 J
8081A	Toxaphene	8001-35-2	UG/L	3	--	0.061	< 7.3 J
	Herbicides						
8151A	Dinoseb	88-85-7	UG/L	7	--	37	0.36 J
	Volatile Organic Compounds (VOCs)						
8260B	1,1,1-Trichloroethane	71-55-6	UG/L	200	--	840	< 36 J
8260B	1,1,2,2-Tetrachloroethane	79-34-5	UG/L	--	--	0.055	< 31 J
8260B	1,1,2-Trichloroethane	79-00-5	UG/L	5	--	0.2	< 35 J
8260B	1,1-Dichloroethane	75-34-3	UG/L	--	--	1200	< 37 J
8260B	1,1-Dichloroethene	75-35-4	UG/L	7	--	340	< 43 J
8260B	1,2-Dibromoethane (EDB)	106-93-4	UG/L	0.05	--	0.0056	< 30 J
8260B	1,2-Dichlorobenzene	95-50-1	UG/L	600	--	49	54 J
8260B	1,2-Dichloroethane	107-06-2	UG/L	5	--	0.12	< 39 J
8260B	1,2-Dichloroethene (total)	540-59-0	UG/L	--	--	--	< 73 J
8260B	1,2-Dichloropropane	78-87-5	UG/L	5	--	0.17	< 37 J
8260B	1,3-Dichlorobenzene	541-73-1	UG/L	--	--	15	62 J
8260B	1,4-Dichlorobenzene	106-46-7	UG/L	75	--	0.47	650 J
8260B	2-Butanone (MEK)	78-93-3	UG/L	--	--	7100	510 J
8260B	2-Chloroethyl vinyl ether	110-75-8	UG/L	--	--	--	< 62 J
8260B	2-Hexanone	591-78-6	UG/L	--	--	--	< 27 J
8260B	4-Methyl-2-pentanone (MIBK)	108-10-1	UG/L	--	--	2000	480 J
8260B	Acetone	67-64-1	UG/L	--	--	5500	91000 J

Table 7
Drum Vault Water Sampling Analytical Results
Cedar Chemical Corporation
Helena - West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Primary Drinking Water Std (ug/L)	Secondary Drinking Water Std (ug/L)	TapWater MSSL (ug/l)	HOLE #1 VAULT WATER 7/9/2008
8260B	Benzene	71-43-2	UG/L	5	--	0.35	< 39 J
8260B	Bromobenzene	108-86-1	UG/L	--	--	23	< 39 J
8260B	Bromochloromethane	74-97-5	UG/L	--	--	--	< 37 J
8260B	Bromodichloromethane	75-27-4	UG/L	--	--	0.18	< 37 J
8260B	Bromoform	75-25-2	UG/L	--	--	8.5	< 27 J
8260B	Bromomethane	74-83-9	UG/L	--	--	8.7	< 72 J
8260B	Carbon disulfide	75-15-0	UG/L	--	--	1000	< 38 J
8260B	Carbon tetrachloride	56-23-5	UG/L	5	--	0.17	< 41 J
8260B	Chlorobenzene	108-90-7	UG/L	100	--	91	67 J
8260B	Chloroethane	75-00-3	UG/L	--	--	3.9	< 45 J
8260B	Chloroform	67-66-3	UG/L	--	--	0.17	< 35 J
8260B	Chloromethane	74-87-3	UG/L	--	--	2.1	< 48 J
8260B	cis-1,2-Dichloroethene	156-59-2	UG/L	70	--	61	< 37 J
8260B	cis-1,3-Dichloropropene	10061-01-5	UG/L	--	--	0.4	< 31 J
8260B	Dibromochloromethane	124-48-1	UG/L	--	--	0.13	< 28 J
8260B	Dibromomethane	74-95-3	UG/L	--	--	61	< 41 J
8260B	Ethylbenzene	100-41-4	UG/L	700	--	1300	50 J
8260B	Methylene chloride	75-09-2	UG/L	5	--	4.3	53 J
8260B	m-Xylene & p-Xylene	136777-61-2	UG/L	--	--	--	110 J
8260B	o-Xylene	95-47-6	UG/L	--	--	1400	< 39 J
8260B	Styrene	100-42-5	UG/L	100	--	1600	< 31 J
8260B	Tetrachloroethene	127-18-4	UG/L	5	--	0.11	< 40 J
8260B	Toluene	108-88-3	UG/L	1000	--	2300	6200 J
8260B	trans-1,2-Dichloroethene	156-60-5	UG/L	100	--	110	< 37 J
8260B	trans-1,3-Dichloropropene	10061-02-6	UG/L	--	--	0.4	< 21 J
8260B	Trichloroethene	79-01-6	UG/L	5	--	0.028	< 45 J
8260B	Trichlorofluoromethane	75-69-4	UG/L	--	--	1300	< 47 J
8260B	Vinyl acetate	108-05-4	UG/L	--	--	410	< 29 J
8260B	Vinyl chloride	75-01-4	UG/L	2	--	0.015	< 40 J
8260B	Xylenes (total)	1330-20-7	UG/L	10000	--	200	150 J
Semivolatile Organic Compounds (SVOCs)							
8270C	1,2,4-Trichlorobenzene	120-82-1	UG/L	70	--	8.2	520 J
8270C	1,2-Dichlorobenzene	95-50-1	UG/L	600	--	49	62 J
8270C	1,3-Dichlorobenzene	541-73-1	UG/L	--	--	15	72 J
8270C	1,4-Dichlorobenzene	106-46-7	UG/L	75	--	0.47	790 J
8270C	2,4,5-Trichlorophenol	95-95-4	UG/L	--	--	3700	< 20 J
8270C	2,4,6-Trichlorophenol	88-06-2	UG/L	--	--	6.1	< 21 J
8270C	2,4-Dichlorophenol	120-83-2	UG/L	--	--	110	< 20 J
8270C	2,4-Dimethylphenol	105-67-9	UG/L	--	--	730	1300 J
8270C	2,4-Dinitrophenol	51-28-5	UG/L	--	--	73	< 73 J
8270C	2,4-Dinitrotoluene	121-14-2	UG/L	--	--	73	< 57 J
8270C	2,6-Dinitrotoluene	606-20-2	UG/L	--	--	37	< 20 J
8270C	2-Chloronaphthalene	91-58-7	UG/L	--	--	490	< 29 J
8270C	2-Chlorophenol	95-57-8	UG/L	--	--	30	41 J
8270C	2-Methylnaphthalene	91-57-6	UG/L	--	--	--	< 19 J
8270C	2-Methylphenol	95-48-7	UG/L	--	--	1800	310 J
8270C	2-Nitroaniline	88-74-4	UG/L	--	--	110	< 23 J
8270C	2-Nitrophenol	88-75-5	UG/L	--	--	--	< 21 J
8270C	3,3'-Dichlorobenzidine	91-94-1	UG/L	--	--	0.15	< 33 J
8270C	3,4-Dichloroaniline	95-76-1	UG/L	--	--	--	46000 J
8270C	3-Methylphenol & 4-Methylphenol	65794-96-9	UG/L	--	--	180	230 J
8270C	3-Nitroaniline	99-09-2	UG/L	--	--	--	< 24 J
8270C	4,6-Dinitro-2-methylphenol	534-52-1	UG/L	--	--	--	< 70 J
8270C	4-Bromophenyl phenyl ether	101-55-3	UG/L	--	--	--	< 18 J
8270C	4-Chloro-3-methylphenol	59-50-7	UG/L	--	--	--	< 21 J
8270C	4-Chloroaniline	106-47-8	UG/L	--	--	150	47000 J
8270C	4-Chlorophenyl phenyl ether	7005-72-3	UG/L	--	--	--	< 28 J
8270C	4-Nitroaniline	100-01-6	UG/L	--	--	--	< 21 J
8270C	4-Nitrophenol	100-02-7	UG/L	--	--	290	< 80 J
8270C	Acenaphthene	83-32-9	UG/L	--	--	370	< 22 J
8270C	Acenaphthylene	208-96-8	UG/L	--	--	--	< 18 J
8270C	Aniline	62-53-3	UG/L	--	--	12	< 40 J
8270C	Anthracene	120-12-7	UG/L	--	--	1800	< 22 J
8270C	Benzo(a)anthracene	56-55-3	UG/L	--	--	0.03	< 22 J
8270C	Benzo(a)pyrene	50-32-8	UG/L	0.2	--	0.003	< 22 J

Table 7
Drum Vault Water Sampling Analytical Results
Cedar Chemical Corporation
Helena - West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Primary Drinking Water Std (ug/L)	Secondary Drinking Water Std (ug/L)	TapWater MSSL (ug/l)	HOLE #1 VAULT WATER 7/9/2008
8270C	Benzo(b)fluoranthene	205-99-2	UG/L	--	--	0.03	< 15 J
8270C	Benzo(ghi)perylene	191-24-2	UG/L	--	--	--	< 15 J
8270C	Benzo(k)fluoranthene	207-08-9	UG/L	--	--	0.3	< 24 J
8270C	Benzoic acid	65-85-0	UG/L	--	--	150000	6900 J
8270C	Benzyl alcohol	100-51-6	UG/L	--	--	11000	< 32 J
8270C	bis(2-Chloroethoxy)methane	111-91-1	UG/L	--	--	--	< 22 J
8270C	bis(2-Chloroethyl) ether	111-44-4	UG/L	--	--	0.0098	< 23 J
8270C	bis(2-Chloroisopropyl) ether	108-60-1	UG/L	--	--	0.27	< 24 J
8270C	bis(2-Ethylhexyl) phthalate	117-81-7	UG/L	6	--	4.8	< 54 J
8270C	Butyl benzyl phthalate	85-68-7	UG/L	--	--	7300	< 19 J
8270C	Chrysene	218-01-9	UG/L	--	--	3	< 21 J
8270C	Dibenz(a,h)anthracene	53-70-3	UG/L	--	--	0.003	< 20 J
8270C	Dibenzofuran	132-64-9	UG/L	--	--	12	< 21 J
8270C	Diethyl phthalate	84-66-2	UG/L	--	--	29000	< 29 J
8270C	Dimethyl phthalate	131-11-3	UG/L	--	--	370000	< 25 J
8270C	Di-n-butyl phthalate	84-74-2	UG/L	--	--	3700	< 22 J
8270C	Di-n-octyl phthalate	117-84-0	UG/L	--	--	--	< 22 J
8270C	Dinoseb	88-85-7	UG/L	7	--	37	350 J
8270C	Fluoranthene	206-44-0	UG/L	--	--	1500	< 18 J
8270C	Fluorene	86-73-7	UG/L	--	--	240	< 20 J
8270C	Hexachlorobenzene	118-74-1	UG/L	1	--	0.042	< 29 J
8270C	Hexachlorobutadiene	87-68-3	UG/L	--	--	0.86	< 25 J
8270C	Hexachlorocyclopentadiene	77-47-4	UG/L	50	--	220	< 67 J
8270C	Hexachloroethane	67-72-1	UG/L	--	--	4.8	< 18 J
8270C	Indeno(1,2,3-cd)pyrene	193-39-5	UG/L	--	--	0.03	< 22 J
8270C	Isophorone	78-59-1	UG/L	--	--	71	< 21 J
8270C	Naphthalene	91-20-3	UG/L	--	--	6.2	< 17 J
8270C	Nitrobenzene	98-95-3	UG/L	--	--	3.4	< 22 J
8270C	N-Nitrosodi-n-propylamine	621-64-7	UG/L	--	--	0.0096	< 20 J
8270C	N-Nitrosodiphenylamine	86-30-6	UG/L	--	--	14	< 18 J
8270C	Pentachlorophenol	87-86-5	UG/L	1	--	0.56	< 110 J
8270C	Phenanthrene	85-01-8	UG/L	--	--	--	< 20 J
8270C	Phenol	108-95-2	UG/L	--	--	11000	13000 J
8270C	Propanil	709-98-8	UG/L	--	--	180	2800 J
8270C	Pyrene	129-00-0	UG/L	--	--	180	< 18 J

Notes:

-- No data available for reported analyte

< The analyte was not detected at the concentration given.

J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

TABLE 8

Spring 2008 Groundwater Sampling Analytical Data

Table 8
Spring 2008 Groundwater Sampling Analytical Data
Cedar Chemical Corporation
Helena-West Helena, Arkansas
Project 13636

Analytical Method	Analyte	CASRN	Units	Primary Drinking Water Std (ug/L)	Secondary Drinking Water Std (ug/L)	TapWater MSSL (ug/l)	Haz waste Code	TCLP Reg Number(ug/l)	Sample ID	OFFMW-3	OFFMW-4	TW-1	TW-1	TW-2	TW-2	TW-3	TW-4	TW-5	TW-6	TW-7	TW-8	TW-9	TW-9	TW-10
									Date Sampled	4/22/2008	4/22/2008	3/31/2008	4/22/2008	3/31/2008	4/22/2008	4/22/2008	4/22/2008	4/22/2008	3/31/2008	4/22/2008	4/22/2008	3/31/2008	4/22/2008	4/22/2008
	General Chemistry Parameters																							
2320 B	Total Alkalinity	Q18	UG/L	NA	NA	NA	NA	NA		--	--	275000	--	352000	--	--	--	--	--	--	--	--	--	--
2320B	Bicarbonate, as CaCO3	Q017	UG/L	NA	NA	NA	NA	NA		--	--	275000	--	352000	--	--	--	--	--	--	--	--	--	--
300.0A	Chloride	Q138	UG/L	NA	NA	NA	NA	NA		--	--	1370000	--	70300	--	--	--	--	--	--	--	1470000	--	--
300.0A	Fluoride	Q338	UG/L	NA	NA	NA	NA	NA		--	--	3550	--	407 J	--	--	--	--	--	--	--	246 J	--	--
300.0A	Nitrate as N	Q479	UG/L	10000	NA	10000	NA	NA		--	--	--	--	< 15	--	--	--	--	--	--	--	< 15	--	--
300.0A	Nitrite as N	Q481	UG/L	1000	NA	1000	NA	NA		--	--	--	--	< 22	--	--	--	--	--	--	--	< 22	--	--
300.0A	Sulfate	Q605	UG/L	NA	250000	NA	NA	NA		--	--	595000	--	32200	--	--	--	--	--	--	--	661000	--	--
350.1	Nitrogen, as Ammonia	Q477	UG/L	NA	NA	210	NA	NA		--	--	**2880**	--	158	--	--	--	--	--	--	--	**2010**	--	--
9012A	Cyanide, Total	57-12-5	MG/L	NA	NA	0.73	NA	NA		--	--	0.27	--	< 0.0035	--	--	--	--	--	--	--	0.0037 J	--	--
	Metals																							
6020	Aluminum	7429-90-5	UG/L	NA	50	37000	NA	NA		--	--	711	--	7010	--	--	--	--	19800	--	--	**85900**	--	--
6020	Antimony	7440-36-0	UG/L	6	NA	15	NA	NA		--	--	0.58 J	--	0.21 J	--	--	--	--	0.71 J	--	--	0.64 J	--	--
6020	Arsenic	7440-38-2	UG/L	10	NA	0.045	D004	5000		--	--	**42**	--	**36.3**	--	--	--	--	**5 J**	--	--	**15.2**	--	--
6020	Barium	7440-39-3	UG/L	2000	NA	7300	D005	100000		--	--	52 J	--	260 J	--	--	--	--	74	--	--	39.9 J	--	--
6020	Beryllium	7440-41-7	UG/L	4	NA	73	NA	NA		--	--	0.074 J	--	0.37 J	--	--	--	--	5.8	--	--	12.5	--	--
6020	Cadmium	7440-43-9	UG/L	5	NA	18	D006	1000		--	--	0.5 J	--	1.3	--	--	--	--	**27.3**	--	--	1.7	--	--
6020	Calcium	7440-70-2	UG/L	NA	NA	NA	NA	NA		--	--	29300	--	97900	--	--	--	--	616000	--	--	300000	--	--
6020	Chromium	7440-47-3	UG/L	100	NA	NA	D007	5000		--	--	4.3	--	7.1	--	--	--	--	53.9	--	--	107	--	--
6020	Cobalt	7440-48-4	UG/L	NA	NA	730	NA	NA		--	--	83.7	--	14.8	--	--	--	--	439	--	--	11.8	--	--
6020	Copper	7440-50-8	UG/L	1300	1000	1400	NA	NA		--	--	29.7	--	13.7	--	--	--	--	27.9	--	--	29.5	--	--
6020	Iron	7439-89-6	UG/L	NA	300	26000	NA	NA		--	--	106	--	**28200**	--	--	--	--	8030	--	--	**239000**	--	--
6020	Lead	7439-92-1	UG/L	15	NA	15	D008	5000		--	--	0.77 J	--	9.7	--	--	--	--	4.7	--	--	**18.6**	--	--
6020	Magnesium	7439-95-4	UG/L	NA	NA	NA	NA	NA		--	--	5480 J	--	29300	--	--	--	--	97900	--	--	96600	--	--
6020	Manganese	7439-96-5	UG/L	NA	50	1700	NA	NA		--	--	**4240**	--	**29900**	--	--	--	--	**97600**	--	--	**22600**	--	--
6020	Nickel	7440-02-0	UG/L	NA	NA	730	NA	NA		--	--	50.9	--	18.3	--	--	--	--	**799**	--	--	358	--	--
6020	Potassium	9/7/7440	UG/L	NA	NA	NA	NA	NA		--	--	4160 J	--	3480 J	--	--	--	--	24600	--	--	9420 J	--	--
6020	Selenium	7782-49-2	UG/L	50	NA	180	D010	1000		--	--	150	--	25.2	--	--	--	--	11.4	--	--	12.2	--	--
6020	Silver	7440-22-4	UG/L	NA	100	180	D011	5000		--	--	< 0.04	--	< 0.04	--	--	--	--	< 0.04	--	--	0.065 J	--	--
6020	Sodium	7440-23-5	UG/L	NA	NA	NA	NA	NA		--	--	1380000	--	44200	--	--	--	--	1900000	--	--	431000	--	--
6020	Thallium	7440-28-0	UG/L	2	NA	2.6	NA	NA		--	--	0.069 J	--	0.24 J	--	--	--	--	1.1	--	--	1.2	--	--
6020	Vanadium	7440-62-2	UG/L	NA	NA	180	NA	NA		--	--	4.2	--	21.1	--	--	--	--	6.3 J	--	--	**443**	--	--
6020	Zinc	7440-66-6	UG/L	NA	5000	11000	NA	NA		--	--	30.7	--	48.9	--	--	--	--	199	--	--	88.1	--	--
7470A	Mercury	7439-97-6	UG/L	2	NA	0.63	D009	200		--	--	0.33	--	0.16 J	--	--	--	--	< 0.06	--	--	**1.3**	--	--
	Organochlorine Pesticides																							
8081A	4,4'-DDD	72-54-8	UG/L	NA	NA	0.28	NA	NA		< 0.0077	< 0.0077	**0.94 J**	--	< 0.079 J	--	--	--	--	< 1.1	--	--	< 0.082 J	--	--
8081A	4,4'-DDE	72-55-9	UG/L	NA	NA	0.2	NA	NA		< 0.0075	< 0.0075	< 0.72 J	--	< 0.077 J	--	--	--	--	< 1	--	--	< 0.08 J	--	--
8081A	4,4'-DDT	50-29-3	UG/L	NA	NA	0.2	NA	NA		< 0.015	< 0.015	< 1.4 J	--	< 0.15 J	--	--	--	--	< 2.1	--	--	< 0.16 J	--	--
8081A	Aldrin	309-00-2	UG/L	NA	NA	0.004	NA	NA		< 0.0059	< 0.0059	< 0.57 J	--	< 0.061 J	--	--	--	--	< 0.82	--	--	< 0.063 J	--	--
8081A	alpha-BHC	319-84-6	UG/L	NA	NA	0.011	NA	NA		< 0.0053	< 0.0053	**1.2 J**	--	< 0.054 J	--	--	--	--	< 0.74	--	--	< 0.056 J	--	--
8081A	alpha-Chlordane	5103-71-9	UG/L	NA	NA	NA	NA	NA		< 0.0053	< 0.0053	< 0.51 J	--	< 0.054 J	--	--	--	--	< 0.74	--	--	< 0.056 J	--	--
8081A	beta-BHC	319-85-7	UG/L	NA	NA	0.037	NA	NA		< 0.0087	< 0.0087	< 0.84 J	--	< 0.089 J	--	--	--	--	< 1.2	--	--	< 0.093 J	--	--
8081A	Chlordane (technical)	57-74-9	UG/L	2	NA	0.19	D020	30		< 0.14	< 0.14	< 13 J	--	< 1.4 J	--	--	--	--	< 19	--	--	< 1.5 J	--	--
8081A	delta-BHC	319-86-8	UG/L	NA	NA	NA	NA	NA		< 0.0058	< 0.0058	< 0.56 J	--	0.074 J	--	--	--	--	< 0.81	--	--	0.097 J	--	--
8081A	Dieldrin	60-57-1	UG/L	NA	NA	0.0042	NA	NA		< 0.0063	< 0.0063	**1.8 J**	--	< 0.065 J	--	--	--	--	< 0.88	--	--	< 0.067 J	--	--
8081A	Endosulfan I	959-98-8	UG/L	NA	NA	NA	NA	NA		< 0.0058	< 0.0058	1.1 J	--	< 0.06 J	--	--	--	--	< 0.81	--	--	< 0.062 J	--	--
8081A	Endosulfan II	33213-65-9	UG/L	NA	NA	NA	NA	NA		< 0.007	< 0.007	< 0.67 J	--	< 0.072 J	--	--	--	--	< 0.97	--	--	< 0.075 J	--	--
8081A	Endosulfan sulfate	1031-07-8	UG/L	NA	NA	NA	NA	NA		< 0.0057	< 0.0057	< 0.55 J	--	< 0.059 J	--	--	--	--	< 0.79	--	--	< 0.061 J	--	--
8081A	Endrin	72-20-8	UG/L	2	NA	11	D012	20		< 0.0079	< 0.0079	< 0.76 J	--	< 0.081 J	--	--	--	--	< 1.1	--	--	< 0.084 J	--	--
8081A	Endrin aldehyde	7421-93-4	UG/L	NA	NA	NA	NA	NA		< 0.0088	< 0.0088	< 0.85 J	--	< 0.09 J	--	--	--	--	< 1.2	--	--	0.15 J	--	--
8081A	Endrin ketone	53494-70-5	UG/L	NA	NA	NA	NA	NA		< 0.007	< 0.007	< 0.67 J	--	< 0.072 J	--	--	--	--	< 0.97	--	--	0.077 J	--	--
8081A	gamma-BHC (Lindane)	58-89-9	UG/L	0.2	NA	0.052	D013	400		< 0.0069	< 0.0069	< 0.66 J	--	< 0.071 J	--	--	--	--	< 0.96	--	--	< 0.073 J	--	--
8081A	gamma-Chlordane	5103-74-2	UG/L	NA	NA	NA	NA	NA		< 0.0091	< 0.0091	< 0.87 J	--	< 0.093 J	--	--	--	--	< 1.3	--	--	< 0.097 J	--	--
8081A	Heptachlor	76-44-8	UG/L	0.4	NA	0.015	D031	8		< 0.0077	< 0.0077	< 0.74 J	--	< 0.079 J	--	--	--	--	< 1.1	--	--	< 0.082 J	--	--
8081A	Heptachlor epoxide	1024-57-3	UG/L	0.2	NA	0.0074	NA	NA		< 0.0075	< 0.0075	< 0.72 J	--	< 0.077 J	--	--	--	--	**1.2 J**	--	--	**0.37 J**	--	--
8081A	Methoxychlor	72-43-5	UG/L	40	NA	180	D014	10000		< 0.013	< 0.013	< 1.2 J	--	< 0.13 J	--	--	--	--	< 1.8	--	--	< 0.14 J	--	--
8081A	Toxaphene	8001-35-2	UG/L	3	NA	0.061	D015	500		< 0.37	< 0.37	< 35 J	--	< 3.8 J	--	--	--	--	< 51	--	--	< 3.9 J	--	--
	Herbicides																							
8151A	Dinoseb	88-85-7	UG/L	7	NA	37	NA	NA		< 0.24	< 0.24	**70 J**	--	**730 J**	--	--	--	--	**4200**	--	--	**49 J**	--	--

Table 8
Spring 2008 Groundwater Sampling Analytical Data
Cedar Chemical Corporation
Helena-West Helena, Arkansas
Project 13636

Analytical Method	Analyte	CASRN	Units	Primary Drinking Water Std (ug/L)	Secondary Drinking Water Std (ug/L)	TapWater MSSL (ug/l)	Haz waste Code	TCLP Reg Number(ug/l)	Sample ID	OFFMW-3	OFFMW-4	TW-1	TW-1	TW-2	TW-2	TW-3	TW-4	TW-5	TW-6	TW-7	TW-8	TW-9	TW-9	TW-10
									Date Sampled	4/22/2008	4/22/2008	3/31/2008	4/22/2008	3/31/2008	4/22/2008	4/22/2008	4/22/2008	4/22/2008	3/31/2008	4/22/2008	4/22/2008	3/31/2008	4/22/2008	4/22/2008
	Volatile Organic Compounds (VOCs)																							
8260B	1,1,1-Trichloroethane	71-55-6	UG/L	200	NA	840	NA	NA		< 0.36	< 0.36	< 180	< 3600	< 0.36	< 0.36	< 360	< 1800	< 7.2	< 0.36	< 3.6	< 18	< 0.72	< 1.8	< 3600
8260B	1,1,2,2-Tetrachloroethane	79-34-5	UG/L	NA	NA	0.055	NA	NA		< 0.31	< 0.31	< 160	< 3100	< 0.31	< 0.31	< 310	< 1600	< 6.2	< 0.31	< 3.1	< 16	< 0.62	< 1.6	< 3100
8260B	1,1,2-Trichloroethane	79-00-5	UG/L	5	NA	0.2	NA	NA		< 0.35	< 0.35	< 180	< 3500	< 0.35	< 0.35	< 350	< 1800	< 7	**1.5**	< 3.5	< 18	< 0.7	< 1.8	< 3500
8260B	1,1-Dichloroethane	75-34-3	UG/L	NA	NA	1200	NA	NA		< 0.37	< 0.37	< 190	< 3700	< 0.37	< 0.37	< 370	< 1900	< 7.5	< 0.37	< 3.7	< 19	< 0.75	< 1.9	< 3700
8260B	1,1-Dichloroethene	75-35-4	UG/L	7	NA	340	D029	700		< 0.43	< 0.43	< 210	< 4300	< 0.43	< 0.43	< 430	< 2100	< 8.5	< 0.43	< 4.3	< 21	< 0.85	< 2.1	< 4300
8260B	1,2-Dibromoethane (EDB)	106-93-4	UG/L	0.05	NA	0.0056	NA	NA		< 0.3	< 0.3	< 150	< 3000	< 0.3	< 0.3	< 300	< 1500	< 6	< 0.3	< 3	< 15	< 0.6	< 1.5	< 3000
8260B	1,2-Dichlorobenzene	95-50-1	UG/L	600	NA	49	NA	NA		< 0.43	< 0.43	**580**	**10000**	1.9	2.5	< 430	**4300 J**	**450**	**350**	**130**	**280**	**170**	**350**	< 4300
8260B	1,2-Dichloroethane	107-06-2	UG/L	5	NA	0.12	D028	500		**33**	**100**	< 200	**4100 J**	**4.9**	**3.1**	**37000**	**6700**	**380**	**2100**	**7 J**	< 20	**13**	**5.7**	**730000**
8260B	1,2-Dichloroethene (total)	540-59-0	UG/L	NA	NA	NA	NA	NA		< 0.73	< 0.73	< 370	< 7300	< 0.73	< 0.73	< 730	< 3700	< 15	< 0.73	< 7.3	< 37	< 1.5	< 3.7	< 7300
8260B	1,2-Dichloropropane	78-87-5	UG/L	5	NA	0.17	NA	NA		< 0.37	< 0.37	< 190	< 3700	< 0.37	< 0.37	< 370	< 1900	< 7.5	**20**	< 3.7	< 19	< 0.75	< 1.9	< 3700
8260B	1,3-Dichlorobenzene	541-73-1	UG/L	NA	NA	15	NA	NA		< 0.39	< 0.39	< 190	< 3900	1.3	< 0.39	< 390	< 1900	< 7.7	3	< 3.9	< 19	3.1	< 1.9	< 3900
8260B	1,4-Dichlorobenzene	106-46-7	UG/L	75	NA	0.47	D027	7500		< 0.38	< 0.38	< 190	< 3800	**3.4**	**1.8**	< 380	< 1900	< 7.5	**10**	**5.1 J**	< 19	**5.4**	**11**	< 3800
8260B	2-Butanone (MEK)	78-93-3	UG/L	NA	NA	7100	D035	200000		< 0.84	< 0.84	< 420	< 8400	< 0.84	< 0.84	< 840	< 4200	5200	6800	< 170	1600	19	5.7 J	< 8400
8260B	2-Hexanone	591-78-6	UG/L	NA	NA	NA	NA	NA		< 0.27	< 0.27	< 130	< 2700	< 0.27	< 0.27	< 270	< 1300	10 J	16	< 2.7	< 13	< 0.53	< 1.3	< 2700
8260B	2-Chloroethyl vinyl ether	110-75-8	UG/L	NA	NA	NA	NA	NA		< 0.62	< 0.62	< 310	< 6200	< 0.62	< 0.62	< 620	< 3100	< 12	< 0.62	< 6.2	< 31	< 1.2	< 3.1	< 6200
8260B	4-Methyl-2-pentanone (MIBK)	108-10-1	UG/L	NA	NA	2000	NA	NA		< 0.42	< 0.42	1000 J	< 4200	< 0.42	< 0.42	< 420	**10000 J**	1000	10	160	< 21	4.7 J	< 2.1	< 4200
8260B	Acetone	67-64-1	UG/L	NA	NA	5500	NA	NA		< 0.82	< 0.82	**9700**	**12000 J**	5.7	1.6 J	1600 J	**33000**	**18000**	< 0.82	**7500**	140 J	21	12 J	**8400 J**
8260B	Benzene	71-43-2	UG/L	5	NA	0.35	D018	500		< 0.39	**1.2**	< 200	< 3900	< 0.39	< 0.39	< 390	< 2000	< 7.8	**0.83 J**	< 3.9	< 20	**2.1**	**2.1 J**	< 3900
8260B	Bromobenzene	108-86-1	UG/L	NA	NA	23	NA	NA		< 0.39	< 0.39	< 200	< 3900	< 0.39	< 0.39	< 390	< 2000	< 7.9	< 0.39	< 3.9	< 20	< 0.79	< 2	< 3900
8260B	Bromochloromethane	74-97-5	UG/L	NA	NA	NA	NA	NA		< 0.37	< 0.37	< 180	< 3700	< 0.37	< 0.37	< 370	< 1800	< 7.4	< 0.37	< 3.7	< 18	< 0.74	< 1.8	< 3700
8260B	Bromodichloromethane	75-27-4	UG/L	NA	NA	0.18	NA	NA		< 0.37	< 0.37	< 180	< 3700	< 0.37	< 0.37	< 370	< 1800	< 7.4	< 0.37	< 3.7	< 18	< 0.74	< 1.8	< 3700
8260B	Bromoform	75-25-2	UG/L	NA	NA	8.5	NA	NA		< 0.27	< 0.27	< 130	< 2700	< 0.27	< 0.27	< 270	< 1300	< 5.4	< 0.27	< 2.7	< 13	< 0.54	< 1.3	< 2700
8260B	Bromomethane	74-83-9	UG/L	NA	NA	8.7	NA	NA		< 0.72	< 0.72	< 360	< 7200	< 0.72	< 0.72	< 720	< 3600	< 14	< 0.72	< 7.2	< 36	< 1.4	< 3.6	< 7200
8260B	Carbon disulfide	75-15-0	UG/L	NA	NA	1000	NA	NA		< 0.38	< 0.38	< 190	< 3800	< 0.38	0.74 J	< 380	< 1900	< 7.7	< 0.38	< 3.8	< 19	< 0.77	1.9 J	< 3800
8260B	Carbon tetrachloride	56-23-5	UG/L	5	NA	0.17	D019	500		< 0.41	< 0.41	< 200	< 4100	< 0.41	< 0.41	< 410	< 2000	< 8.1	1.6	< 4.1	< 20	< 0.81	< 2	< 4100
8260B	Chlorobenzene	108-90-7	UG/L	100	NA	91	D021	100000		< 0.33	**1.9**	< 170	< 3300	1.1	1.1	< 330	< 1700	< 6.7	2.9	15	< 17	**140**	**180**	< 3300
8260B	Chloroethane	75-00-3	UG/L	NA	NA	3.9	NA	NA		< 0.45	< 0.45	< 220	< 4500	< 0.45	< 0.45	< 450	< 2200	< 9	< 0.45	< 4.5	< 22	**< 0.9**	**< 2.2**	< 4500
8260B	Chloroform	67-66-3	UG/L	NA	NA	0.17	D022	6000		< 0.35	< 0.35	**180 J**	< 3500	< 0.35	< 0.35	< 350	**13000**	< 7	66	< 3.5	< 17	< 0.7	< 1.7	< 3500
8260B	Chloromethane	74-87-3	UG/L	NA	NA	2.1	NA	NA		< 0.48	< 0.48	< 240	< 4800	< 0.48	< 0.48	< 480	< 2400	< 9.6	0.52 J	< 4.8	< 24	< 0.96	< 2.4	< 4800
8260B	cis-1,2-Dichloroethene	156-59-2	UG/L	70	NA	61	NA	NA		< 0.37	< 0.37	< 180	< 3700	< 0.37	< 0.37	< 370	< 1800	< 7.3	< 0.37	< 3.7	< 18	< 0.73	< 1.8	< 3700
8260B	cis-1,3-Dichloropropene	10061-01-5	UG/L	NA	NA	0.4	NA	NA		< 0.31	< 0.31	< 150	< 3100	< 0.31	< 0.31	< 310	< 1500	< 6.1	< 0.31	< 3.1	< 15	< 0.61	< 1.5	< 3100
8260B	Dibromochloromethane	124-48-1	UG/L	NA	NA	0.13	NA	NA		< 0.28	< 0.28	< 140	< 2800	< 0.28	< 0.28	< 280	< 1400	< 5.6	< 0.28	< 2.8	< 14	< 0.56	< 1.4	< 2800
8260B	Dibromomethane	74-95-3	UG/L	NA	NA	61	NA	NA		< 0.41	< 0.41	< 200	< 4100	< 0.41	< 0.41	< 410	< 2000	< 8.1	< 0.41	< 4.1	< 20	< 0.81	< 2	< 4100
8260B	Ethylbenzene	100-41-4	UG/L	700	NA	1300	NA	NA		< 0.42	< 0.42	< 210	< 4200	< 0.42	< 0.42	< 420	**51000**	89	80	< 4.2	< 21	3.4	4.2 J	< 4200
8260B	Methylene chloride	75-09-2	UG/L	5	NA	4.3	NA	NA		< 0.42	< 0.42	**680**	< 4200	< 0.42	< 0.42	**6200**	**3500 J**	**53**	**6300**	< 4.2	**58**	< 0.84	< 2.1	**26000**
8260B	m-Xylene & p-Xylene	136777-61-2	UG/L	NA	NA	NA	NA	NA		< 0.83	< 0.83	< 410	< 8300	< 0.83	< 0.83	< 830	220000	410	320	< 8.3	**< 41**	3 J	< 4.1	< 8300
8260B	o-Xylene	95-47-6	UG/L	NA	NA	1400	NA	NA		< 0.39	< 0.39	450 J	< 3900	< 0.39	< 0.39	< 390	**72000**	190	170	< 3.9	< 19	1.8 J	< 1.9	< 3900
8260B	Styrene	100-42-5	UG/L	100	NA	1600	NA	NA		< 0.31	< 0.31	< 160	< 3100	< 0.31	< 0.31	< 310	**2200 J**	< 6.2	< 0.31	< 3.1	< 16	< 0.62	< 1.6	< 3100
8260B	Tetrachloroethene	127-18-4	UG/L	5	NA	0.11	D039	700		< 0.4	< 0.4	< 200	< 4000	< 0.4	< 0.4	< 400	< 2000	< 8	< 0.4	< 4	< 20	< 0.8	< 2	< 4000
8260B	Toluene	108-88-3	UG/L	1000	NA	2300	NA	NA		< 0.39	< 0.39	**75000 J**	**210000**	11	1.1	1700	**190000**	< 78	780	< 78	2100	26	3.7 J	**5400 J**
8260B	trans-1,2-Dichloroethene	156-60-5	UG/L	100	NA	110	NA	NA		< 0.37	< 0.37	< 190	< 3700	< 0.37	< 0.37	< 370	< 1900	< 7.4	< 0.37	< 3.7	< 19	< 0.74	< 1.9	< 3700
8260B	trans-1,3-Dichloropropene	10061-02-6	UG/L	NA	NA	0.4	NA	NA		< 0.21	< 0.21	< 100	< 2100	< 0.21	< 0.21	< 210	< 1000	< 4.2	< 0.21	< 2.1	< 10	< 0.42	< 1	< 2100
8260B	Trichloroethene	79-01-6	UG/L	5	NA	0.028	D040	500		< 0.45	< 0.45	< 220	< 4500	< 0.45	< 0.45	< 450	< 2200	< 9	< 0.45	< 4.5	< 22	< 0.9	< 2.2	< 4500
8260B	Trichlorofluoromethane	75-69-4	UG/L	NA	NA	1300	NA	NA		< 0.47	< 0.47	< 240	< 4700	< 0.47	< 0.47	< 470	< 2400	< 9.5	< 0.47	< 4.7	< 24	< 0.95	< 2.4	< 4700
8260B	Vinyl acetate	108-05-4	UG/L	NA	NA	410	NA	NA		< 0.29	< 0.29	< 150	< 2900	< 0.29	< 0.29	< 290	< 1500	< 5.9	< 0.29	< 2.9	< 15	< 0.59	< 1.5	< 2900
8260B	Vinyl chloride	75-01-4	UG/L	2	NA	0.015	D043	200		< 0.4	< 0.4	< 200	< 4000	< 0.4	< 0.4	< 400	< 2000	< 8	**1.1 J**	< 4	< 20	< 0.8	< 2	< 4000
8260B	Xylenes (total)	1330-20-7	UG/L	10000	NA	200	NA	NA		< 1.2	< 1.2	**790 J**	< 12000	< 1.2	< 1.2	< 1200	< 6000	< 24	< 1.2	< 12	< 60	4.8 J	< 6	< 12000
	Semivolatile Organic Compounds (SVOCs)																							
8270C	1,2,4-Trichlorobenzene	120-82-1	UG/L	70	NA	8.2	NA	NA		< 0.84	< 0.81	< 8.2	--	< 4.2	--	--	--	--	< 4.2	--	--	< 0.83	--	--
8270C	1,2-Dichlorobenzene	95-50-1	UG/L	600	NA	49	NA	NA		< 0.97	< 0.94	**1000**	--	< 4.8	--	--	--	--	**290**	--	--	**180**	--	--
8270C	1,3-Dichlorobenzene	541-73-1	UG/L	NA	NA	15	NA	NA		< 0.99	< 0.96	< 9.7	--	< 4.9	--	--	--	--	< 4.9	--	--	< 0.98	--	--
8270C	1,4-Dichlorobenzene	106-46-7	UG/L	75	NA	0.47	D027	7500		< 0.81	< 0.78	**11 J**	--	< 4	--	--	--	--	**5.8 J**	--	--	**5.7 J**	--	--
8270C	2,4,5-Trichlorophenol	95-95-4	UG/L	NA	NA	3700	D041	400000		< 1	< 0.97	< 9.8	--	< 5	--	--	--	--	< 5	--	--	< 0.99	--	--
8270C	2,4,6-Trichlorophenol	88-06-2	UG/L	NA	NA	6.1	D042	2000		< 1.1	< 1.1	< 11	--	< 5.4	--	--	--	--	< 5.4	--	--	< 1.1	--	--
8270C	2,4-Dichlorophenol	120-83-2	UG/L	NA	NA	110	NA	NA		< 1	< 1	11 J	--	< 5.1	--	--	--	--	27 J	--	--	4.7 J	--	--
8270C	2,4-Dimethylphenol	105-67-9	UG/L	NA	NA	730	NA	NA		< 1.9	< 1.8	< 19	--	< 9.4	--	--	--	--	< 9.4	--	--	3.6 J	--	--
8270C	2,4-Dinitrophenol	51-28-5	UG/L	NA	NA	73	NA	NA		< 3.7	< 3.6	< 37	--	< 19	--	--	--	--	**12000**	--	--	< 3.7	--	--
8270C	2,4-Dinitrotoluene	121-14-2	UG/L	NA	NA	73	D030	130		< 2.9	< 2.8	< 28	--	< 14	--	--	--	--	< 14	--	--	< 2.9	--	--
8270C	2,6-Dinitrotoluene	606-20-2	UG/L	NA	NA	37	NA	NA		< 1	< 1	< 10	--	< 5.1	--	--	--	--	< 5.1	--	--	< 1	--	--
8270C	2-Chloronaphthalene	91-58-7	UG/L	NA	NA	490	NA	NA		< 1.5	< 1.4	< 14	--	< 7.2	--	--	--	--	< 7.2	--	--	< 1.4	--	--
8270C	2-Chlorophenol	95-57-8	UG/L	NA	NA	30	NA	NA		< 1.5	< 1.4	< 15	--	< 7.4	--	--	--	--	< 7.4	--	--	5.8 J	--	--

Table 8
Spring 2008 Groundwater Sampling Analytical Data
Cedar Chemical Corporation
Helena-West Helena, Arkansas
Project 13636

Analytical Method	Analyte	CASRN	Units	Primary Drinking Water Std (ug/L)	Secondary Drinking Water Std (ug/L)	TapWater MSSL (ug/l)	Haz waste Code	TCLP Reg Number(ug/l)	Sample ID	OFFMW-3	OFFMW-4	TW-1	TW-1	TW-2	TW-2	TW-3	TW-4	TW-5	TW-6	TW-7	TW-8	TW-9	TW-9	TW-10
									Date Sampled	4/22/2008	4/22/2008	3/31/2008	4/22/2008	3/31/2008	4/22/2008	4/22/2008	4/22/2008	4/22/2008	3/31/2008	4/22/2008	4/22/2008	3/31/2008	4/22/2008	4/22/2008
8270C	2-Methylnaphthalene	91-57-6	UG/L	NA	NA	NA	NA	NA		< 0.97	< 0.94	< 9.5	--	< 4.8	--	--	--	--	< 4.8	--	--	< 0.96	--	--
8270C	2-Methylphenol	95-48-7	UG/L	NA	NA	1800	D023	200000		< 1.8	< 1.8	730	--	< 9	--	--	--	--	< 9	--	--	< 1.8	--	--
8270C	2-Nitroaniline	88-74-4	UG/L	NA	NA	110	NA	NA		< 1.2	< 1.2	< 12	--	< 5.9	--	--	--	--	< 5.9	--	--	< 1.2	--	--
8270C	2-Nitrophenol	88-75-5	UG/L	NA	NA	NA	NA	NA		< 1.1	< 1	< 10	--	< 5.2	--	--	--	--	< 5.2	--	--	< 1	--	--
8270C	3,3'-Dichlorobenzidine	91-94-1	UG/L	NA	NA	0.15	NA	NA		< 1.7	< 1.7	< 17	--	< 8.5	--	--	--	--	< 8.5	--	--	< 1.7	--	--
8270C	3,4-Dichloroaniline	95-76-1	UG/L	NA	NA	NA	NA	NA		< 1	< 1	62000	--	16 J	--	--	--	--	380	--	--	1800	--	--
8270C	3-Methylphenol & 4-Methylphenol	65794-96-9	UG/L	NA	NA	180	NA	NA		< 2.6	< 2.5	**650**	--	< 13	--	--	--	--	< 13	--	--	< 2.6	--	--
8270C	3-Nitroaniline	99-09-2	UG/L	NA	NA	NA	NA	NA		< 1.2	< 1.2	< 12	--	< 6	--	--	--	--	< 6	--	--	< 1.2	--	--
8270C	4,6-Dinitro-2-methylphenol	534-52-1	UG/L	NA	NA	NA	NA	NA		< 3.6	< 3.5	< 35	--	< 18	--	--	--	--	< 18	--	--	< 3.5	--	--
8270C	4-Bromophenyl phenyl ether	101-55-3	UG/L	NA	NA	NA	NA	NA		< 0.93	< 0.91	< 9.1	--	< 4.6	--	--	--	--	< 4.6	--	--	< 0.92	--	--
8270C	4-Chloro-3-methylphenol	59-50-7	UG/L	NA	NA	NA	NA	NA		< 1.1	< 1	< 11	--	< 5.3	--	--	--	--	< 5.3	--	--	< 1.1	--	--
8270C	4-Chloroaniline	106-47-8	UG/L	NA	NA	150	NA	NA		10 UJ	9.7 UJ	**13000**	--	< 8.2	--	--	--	--	< 8.2	--	--	**940**	--	--
8270C	4-Chlorophenyl phenyl ether	7005-72-3	UG/L	NA	NA	NA	NA	NA		< 1.4	< 1.4	< 14	--	< 7.1	--	--	--	--	< 7.1	--	--	< 1.4	--	--
8270C	4-Nitroaniline	100-01-6	UG/L	NA	NA	NA	NA	NA		< 1.1	< 1.1	< 11	--	< 5.4	--	--	--	--	< 5.4	--	--	< 1.1	--	--
8270C	4-Nitrophenol	100-02-7	UG/L	NA	NA	290	NA	NA		< 4.1	< 4	< 40	--	< 20	--	--	--	--	200 J	--	--	< 4.1	--	--
8270C	Acenaphthene	83-32-9	UG/L	NA	NA	370	NA	NA		< 1.1	< 1.1	< 11	--	< 5.4	--	--	--	--	< 5.4	--	--	< 1.1	--	--
8270C	Acenaphthylene	208-96-8	UG/L	NA	NA	NA	NA	NA		< 0.9	< 0.88	< 8.9	--	< 4.5	--	--	--	--	< 4.5	--	--	< 0.9	--	--
8270C	Aniline	62-53-3	UG/L	NA	NA	12	NA	NA		10 UJ	9.7 UJ	**160**	--	< 10	--	--	--	--	< 10	--	--	4.7 J	--	--
8270C	Anthracene	120-12-7	UG/L	NA	NA	1800	NA	NA		< 1.1	< 1.1	< 11	--	< 5.6	--	--	--	--	< 5.6	--	--	< 1.1	--	--
8270C	Benzo(a)anthracene	56-55-3	UG/L	NA	NA	0.03	NA	NA		< 1.1	< 1.1	< 11	--	< 5.5	--	--	--	--	< 5.5	--	--	< 1.1	--	--
8270C	Benzo(a)pyrene	50-32-8	UG/L	0.2	NA	0.003	NA	NA		< 1.1	< 1.1	< 11	--	< 5.5	--	--	--	--	< 5.5	--	--	< 1.1	--	--
8270C	Benzo(b)fluoranthene	205-99-2	UG/L	NA	NA	0.03	NA	NA		< 0.79	< 0.76	< 7.7	--	< 3.9	--	--	--	--	< 3.9	--	--	< 0.78	--	--
8270C	Benzo(ghi)perylene	191-24-2	UG/L	NA	NA	NA	NA	NA		< 0.76	< 0.74	< 7.5	--	< 3.8	--	--	--	--	< 3.8	--	--	< 0.75	--	--
8270C	Benzo(k)fluoranthene	207-08-9	UG/L	NA	NA	0.3	NA	NA		< 1.2	< 1.2	< 12	--	< 6.1	--	--	--	--	< 6.1	--	--	< 1.2	--	--
8270C	Benzoic acid	65-85-0	UG/L	NA	NA	150000	NA	NA		< 13	< 13	1100	--	280	--	--	--	--	290	--	--	< 13	--	--
8270C	Benzyl alcohol	100-51-6	UG/L	NA	NA	11000	NA	NA		< 1.6	< 1.6	< 16	--	< 8.1	--	--	--	--	< 8.1	--	--	< 1.6	--	--
8270C	bis(2-Chloroethoxy)methane	111-91-1	UG/L	NA	NA	NA	NA	NA		< 1.1	< 1.1	< 11	--	< 5.6	--	--	--	--	< 5.6	--	--	< 1.1	--	--
8270C	bis(2-Chloroethyl) ether	111-44-4	UG/L	NA	NA	0.0098	NA	NA		< 1.2	**15**	< 12	--	< 5.9	--	--	--	--	< 5.9	--	--	< 1.2	--	--
8270C	bis(2-Chloroisopropyl) ether	108-60-1	UG/L	NA	NA	0.27	NA	NA		< 1.2	< 1.2	< 12	--	< 6	--	--	--	--	< 6	--	--	< 1.2	--	--
8270C	bis(2-Ethylhexyl) phthalate	117-81-7	UG/L	6	NA	4.8	NA	NA		< 2.7	< 2.7	< 27	--	< 14	--	--	--	--	< 14	--	--	< 2.7	--	--
8270C	Butyl benzyl phthalate	85-68-7	UG/L	NA	NA	7300	NA	NA		< 0.99	< 0.96	< 9.7	--	< 4.9	--	--	--	--	< 4.9	--	--	< 0.98	--	--
8270C	Chrysene	218-01-9	UG/L	NA	NA	3	NA	NA		< 1.1	< 1	< 11	--	< 5.3	--	--	--	--	< 5.3	--	--	< 1.1	--	--
8270C	Dibenz(a,h)anthracene	53-70-3	UG/L	NA	NA	0.003	NA	NA		< 1	< 0.98	< 9.9	--	< 5	--	--	--	--	< 5	--	--	< 1	--	--
8270C	Dibenzofuran	132-64-9	UG/L	NA	NA	12	NA	NA		< 1.1	< 1	< 10	--	< 5.2	--	--	--	--	< 5.2	--	--	< 1	--	--
8270C	Diethyl phthalate	84-66-2	UG/L	NA	NA	29000	NA	NA		< 1.5	< 1.4	< 14	--	< 7.3	--	--	--	--	< 7.3	--	--	< 1.5	--	--
8270C	Dimethyl phthalate	131-11-3	UG/L	NA	NA	370000	NA	NA		< 1.3	< 1.2	< 12	--	< 6.3	--	--	--	--	< 6.3	--	--	< 1.3	--	--
8270C	Di-n-butyl phthalate	84-74-2	UG/L	NA	NA	3700	NA	NA		< 1.1	< 1.1	< 11	--	< 5.6	--	--	--	--	< 5.6	--	--	< 1.1	--	--
8270C	Di-n-octyl phthalate	117-84-0	UG/L	NA	NA	NA	NA	NA		< 1.1	< 1.1	< 11	--	< 5.5	--	--	--	--	< 5.5	--	--	< 1.1	--	--
8270C	Dinoseb	88-85-7	UG/L	7	NA	37	NA	NA		< 0.54	< 0.53	**5400**	--	**38 J**	--	--	--	--	**22000**	--	--	**38**	--	--
8270C	Fluoranthene	206-44-0	UG/L	NA	NA	1500	NA	NA		< 0.92	< 0.89	< 9	--	< 4.6	--	--	--	--	< 4.6	--	--	< 0.91	--	--
8270C	Fluorene	86-73-7	UG/L	NA	NA	240	NA	NA		< 1	< 0.98	< 9.9	--	< 5	--	--	--	--	< 5	--	--	< 1	--	--
8270C	Hexachlorobenzene	118-74-1	UG/L	1	NA	0.042	D032	130		< 1.5	< 1.4	< 14	--	< 7.3	--	--	--	--	< 7.3	--	--	< 1.5	--	--
8270C	Hexachlorobutadiene	87-68-3	UG/L	NA	NA	0.86	D033	500		< 1.3	< 1.2	< 12	--	< 6.3	--	--	--	--	< 6.3	--	--	< 1.3	--	--
8270C	Hexachlorocyclopentadiene	77-47-4	UG/L	50	NA	220	NA	NA		< 3.4	< 3.3	< 33	--	< 17	--	--	--	--	< 17	--	--	< 3.4	--	--
8270C	Hexachloroethane	67-72-1	UG/L	NA	NA	4.8	D034	3000		< 0.94	< 0.91	< 9.2	--	< 4.7	--	--	--	--	< 4.7	--	--	< 0.93	--	--
8270C	Indeno(1,2,3-cd)pyrene	193-39-5	UG/L	NA	NA	0.03	NA	NA		< 1.1	< 1.1	< 11	--	< 5.7	--	--	--	--	< 5.7	--	--	< 1.1	--	--
8270C	Isophorone	78-59-1	UG/L	NA	NA	71	NA	NA		< 1.1	< 1.1	**9100**	--	< 5.4	--	--	--	--	< 5.4	--	--	< 1.1	--	--
8270C	Naphthalene	91-20-3	UG/L	NA	NA	6.2	NA	NA		< 0.88	< 0.85	< 8.6	--	< 4.3	--	--	--	--	< 4.3	--	--	< 0.87	--	--
8270C	Nitrobenzene	98-95-3	UG/L	NA	NA	3.4	D036	2000		< 1.1	< 1.1	< 11	--	< 5.5	--	--	--	--	< 5.5	--	--	< 1.1	--	--
8270C	N-Nitrosodi-n-propylamine	621-64-7	UG/L	NA	NA	0.0096	NA	NA		< 1	< 1	< 10	--	< 5.1	--	--	--	--	< 5.1	--	--	< 1	--	--
8270C	N-Nitrosodiphenylamine	86-30-6	UG/L	NA	NA	14	NA	NA		< 0.94	< 0.91	< 9.2	--	< 4.6	--	--	--	--	< 4.6	--	--	< 0.93	--	--
8270C	Pentachlorophenol	87-86-5	UG/L	1	NA	0.56	D037	100000		< 5.4	< 5.3	< 53	--	< 27	--	--	--	--	< 27	--	--	< 5.4	--	--
8270C	Phenanthrene	85-01-8	UG/L	NA	NA	NA	NA	NA		< 1	< 0.97	< 9.8	--	< 4.9	--	--	--	--	< 4.9	--	--	< 0.99	--	--
8270C	Phenol	108-95-2	UG/L	NA	NA	11000	NA	NA		< 2.1	< 2.1	220	--	< 11	--	--	--	--	< 11	--	--	< 2.1	--	--
8270C	Propanil	709-98-8	UG/L	NA	NA	180	NA	NA		< 0.79	< 0.76	**18000**	--	< 3.9	--	--	--	--	**9300**	--	--	14	--	--
8270C	Pyrene	129-00-0	UG/L	NA	NA	180	NA	NA		< 0.92	< 0.89	< 9	--	< 4.5	--	--	--	--	< 4.5	--	--	< 0.91	--	--
	Dissolved Gases																							
SOP-175	Ethane	74-84-0	UG/L	NA	NA	NA	NA	NA		--	--	6.2	--	< 0.062	--	--	--	--	3.4	--	--	< 0.062	--	--
SOP-175	Ethene	74-85-1	UG/L	NA	NA	NA	NA	NA		--	--	0.79	--	< 0.057	--	--	--	--	12	--	--	< 0.057	--	--
SOP-175	Methane	74-82-8	UG/L	NA	NA	NA	NA	NA		--	--	140	--	440	--	--	--	--	92	--	--	1200	--	--
SOP-175	Carbon dioxide	124-38-9	UG/L	NA	NA	NA	NA	NA		--	--	--	--	--	--	--	--	--	3400	--	--	--	--	--
SOP-175	Nitrogen	7727-37-9	UG/L	NA	NA	NA	NA	NA		--	--	--	--	--	--	--	--	--	2000	--	--	--	--	--
SOP-175	Oxygen	7782-44-7	UG/L	NA	NA	NA	NA	NA		--	--	--	--	--	--	--	--	--	740	--	--	--	--	--
SOP-175	Carbon monoxide	630-08-0	UG/L	NA	NA	NA	NA	NA		--	--	--	--	--	--	--	--	--	< 13	--	--	--	--	--

Table 8
Spring 2008 Groundwater Sampling Analytical Results
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Notes:

--	No data available for reported analyte
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
UJ	Data point considered non-detect and the reported value is an approximate.
NA	No MSSL is published for the analyte

TABLE 9

Summer 2008 Groundwater Sampling Analytical Data

Table 9
Summer 2008 Groundwater Sampling Analytical Data
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Primary Drinking Water Std (ug/L)	Secondary Drinking Water Std (ug/L)	TapWater MSSL (ug/l)	Haz waste Code	TCLP Reg Number(ug/l)	Sample ID Date Sampled	1MW-1 7/9/2008	1MW-2 7/10/2008	1MW-3 7/10/2008	1MW-4 7/10/2008	1MW-5 7/9/2008	1MW-6 7/9/2008	1MW-7 7/10/2008	2MW-1 7/13/2008	2MW-2 7/9/2008	2MW-3 7/10/2008	2MW-4 7/12/2008	2MW-5 7/10/2008	2MW-6 7/11/2008
	Metals																					
6020	Aluminum	7429-90-5	UG/L		50	37000				477	< 30.3	< 30.3	< 30.3	< 30.3	4710	230	< 30.3	< 30.3	< 30.3	74.4	< 30.3	105
6020	Antimony	7440-36-0	UG/L	6		15				1.0 UB	1.0 UB	1.0 UB	0.60 J	1.0 UB	0.30 J	1.0 UB	1.0 UB	1.0 UB	1.0 UB	1.0 UB	1.0 UB	1.0 UB
6020	Arsenic	7440-38-2	UG/L	10		0.045	D004	5000		13.0	5.3	0.90 J	0.71 J	0.74 J	10.6	0.41 J	3.6	1.3	150	28.0	1.2	2.9
6020	Barium	7440-39-3	UG/L	2000		7300	D005	100000		170	109	140	122	107	1090	473	57.6	1.2	58.1	677	35.3	51.2
6020	Beryllium	7440-41-7	UG/L	4		73				0.052 J	< 0.023	< 0.023	0.025 J	< 0.023	0.29 J	< 0.023	0.052 J	< 0.023	< 0.023	0.070 J	< 0.023	0.024 J
6020	Cadmium	7440-43-9	UG/L	5		18	D006	1000		0.069 J	< 0.023	0.87 J	0.076 J	0.056 J	0.19 J	< 0.023	0.22 J	0.13 J	0.074 J	0.086 J	0.14 J	0.23 J
6020	Calcium	7440-70-2	UG/L							24600	59200	80000	128000	58400	331000	104000	47400	48700	236000	997000	54000	111000
6020	Chromium	7440-47-3	UG/L	100			D007	5000		0.82 J	< 0.56	< 0.56	1.3	1.3	197	6.1	1.7	0.61 J	38.6	53.6	7.9	8.2
6020	Cobalt	7440-48-4	UG/L			730				6.3	0.12 J	1.3	0.18 J	0.069 J	7.1	0.37 J	30.0	0.14 J	7.8	57.2	0.32 J	1.4
6020	Copper	7440-50-8	UG/L	1300	1000	1400				1.6	0.64 J	2.3	0.90 J	0.76 J	13.9	1.2	2.1	0.98 J	10.8	20.1	2.7	3.4
6020	Iron	7439-89-6	UG/L		300	26000				5750	1760	50.0 UB	83.0	50.0 UB	29400	3000	3180	171	20300	26800	203	268
6020	Lead	7439-92-1	UG/L	15		15	D008	5000		0.43 J	0.11 J	0.26 J	0.059 J	0.076 J	8.2	0.68 J	0.27 J	< 0.05	0.74 J	0.96 J	0.25 J	0.81 J
6020	Magnesium	7439-95-4	UG/L							10400	40100	54600	107000	31600	162000	43000	11600	18500	100000	427000	22600	31900
6020	Manganese	7439-96-5	UG/L		50	1700				3130	1900	880	15.8	1.8 J	1300	305	14500	1810	1400	14400	91.0	447
6020	Nickel	7440-02-0	UG/L			730				13.4	1.4	7.4	3.3	1.1	138	6.8	62.0	6.3	39.4	215	4.6	16.2
6020	Potassium	7440-09-7	UG/L							1650 J	< 220	< 220	< 220	< 220	2580 J	1680 J	262000	1300 J	2510	361000	2030 J	2290
6020	Selenium	7782-49-2	UG/L	50		180	D010	1000		< 0.11	< 0.11	< 0.11	9.4	2.3	< 0.11	< 0.11	< 0.11	< 0.11	0.95 J	0.67 J	< 0.11	1.1
6020	Silver	7440-22-4	UG/L		100	180	D011	5000		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	0.059 J	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
6020	Sodium	7440-23-5	UG/L							8040 J	31700	107000	126000	39600	277000	17400	60100	152000	708000	183000	84700	59400
6020	Thallium	7440-28-0	UG/L	2		2.6				0.021 J	< 0.019	0.021 J	< 0.019	< 0.019	0.11 J	< 0.019	0.085 J	< 0.019	< 0.019	< 0.019	< 0.019	0.036 J
6020	Vanadium	7440-62-2	UG/L			180				2.1	0.50 J	0.78 J	1.8	1.4	10.9	0.81 J	0.68 J	0.16 J	1.1	3.7	2.0	8.3
6020	Zinc	7440-66-6	UG/L		5000	11000				11.7	6.3 J	10.7	5.9 J	6.0 J	71.9	25.1	9.2 J	2.7 J	8.9 J	39.0	9.1 J	15.4
	Organochlorine Pesticides																					
8081A	4,4'-DDD	72-54-8	UG/L			0.28				< 0.0077 J	< 0.0077	< 0.0077	< 0.0077	< 0.0077	< 0.0077 J	< 0.0077 J	< 0.77 J	< 0.0077	< 0.0077 J	< 0.077 J	< 0.0077	< 0.0077 J
8081A	4,4'-DDE	72-55-9	UG/L			0.2				< 0.0075 J	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075 J	< 0.0075 J	< 0.75 J	< 0.0075	< 0.0075 J	< 0.075 J	< 0.0075	< 0.0075 J
8081A	4,4'-DDT	50-29-3	UG/L			0.2				< 0.015 J	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015 J	< 0.015 J	< 1.5 J	< 0.015	< 0.015 J	< 0.15 J	< 0.015	< 0.015 J
8081A	Aldrin	309-00-2	UG/L			0.004				< 0.0059 J	< 0.0059	< 0.0059	< 0.0059	< 0.0059	< 0.0059 J	< 0.0059 J	< 0.59 J	< 0.0059	< 0.0059 J	< 0.059 J	< 0.0059	< 0.0059 J
8081A	alpha-BHC	319-84-6	UG/L			0.011				< 0.0053 J	< 0.0053	< 0.0053	< 0.0053	< 0.0053	< 0.0053 J	< 0.0053 J	< 0.53 J	< 0.0053	< 0.0053 J	0.10 J	< 0.0053	< 0.0053 J
8081A	alpha-Chlordane	5103-71-9	UG/L							< 0.0053 J	< 0.0053	< 0.0053	< 0.0053	< 0.0053	< 0.0053 J	< 0.0053 J	< 0.53 J	< 0.0053	< 0.0053 J	< 0.053 J	< 0.0053	< 0.0053 J
8081A	beta-BHC	319-85-7	UG/L			0.037				< 0.0087 J	< 0.0087	< 0.0087	< 0.0087	< 0.0087	< 0.0087 J	< 0.0087 J	< 0.87 J	< 0.0087	< 0.0087 J	< 0.087 J	< 0.0087	< 0.0087 J
8081A	Chlordane (technical)	57-74-9	UG/L	2		0.19	D020	30		< 0.14 J	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14 J	< 0.14 J	< 14 J	< 0.14	< 0.14 J	< 1.4 J	< 0.14	< 0.14 J
8081A	delta-BHC	319-86-8	UG/L							< 0.0058 J	< 0.0058	< 0.0058	< 0.0058	< 0.0058	0.0060 J	< 0.0058 J	< 0.58 J	< 0.0058	0.018 J	< 0.058 J	< 0.0058	< 0.0058 J
8081A	Dieldrin	60-57-1	UG/L			0.0042				< 0.0063 J	< 0.0063	< 0.0063	< 0.0063	< 0.0063	< 0.0063 J	< 0.0063 J	< 0.63 J	0.0080 J	< 0.0063 J	< 0.063 J	< 0.0063	< 0.0063 J
8081A	Endosulfan I	959-98-8	UG/L							< 0.0058 J	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058 J	< 0.0058 J	< 0.58 J	< 0.0058	< 0.0058 J	< 0.058 J	< 0.0058	< 0.0058 J
8081A	Endosulfan II	33213-65-9	UG/L							< 0.007 J	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007 J	< 0.007 J	< 0.7 J	< 0.007	< 0.007 J	< 0.07 J	< 0.007	< 0.007 J
8081A	Endosulfan sulfate	1031-07-8	UG/L							< 0.0057 J	< 0.0057	< 0.0057	< 0.0057	< 0.0057	< 0.0057 J	< 0.0057 J	< 0.57 J	< 0.0057	< 0.0057 J	< 0.057 J	< 0.0057	< 0.0057 J
8081A	Endrin	72-20-8	UG/L	2		11	D012	20		0.014 J	0.0086 J	0.039 J	< 0.0079	< 0.0079	< 0.0079 J	< 0.0079 J	< 0.79 J	< 0.0079	< 0.0079 J	< 0.079 J	< 0.0079	< 0.0079 J
8081A	Endrin aldehyde	7421-93-4	UG/L							< 0.0088 J	< 0.0088	< 0.0088	< 0.0088	< 0.0088	< 0.0088 J	< 0.0088 J	< 0.88 J	< 0.0088	< 0.0088 J	< 0.088 J	< 0.0088	< 0.0088 J
8081A	Endrin ketone	53494-70-5	UG/L							< 0.007 J	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007 J	< 0.007 J	< 0.7 J	< 0.007	< 0.007 J	< 0.07 J	< 0.007	< 0.007 J
8081A	gamma-BHC (Lindane)	58-89-9	UG/L	0.2		0.052	D013	400		< 0.0069 J	< 0.0069	< 0.0069	< 0.0069	< 0.0069	< 0.0069 J	< 0.0069 J	< 0.69 J	0.42 J	< 0.0069 J	0.11 J	< 0.0069	< 0.0069 J
8081A	gamma-Chlordane	5103-74-2	UG/L							< 0.0091 J	< 0.0091	< 0.0091	< 0.0091	< 0.0091	< 0.0091 J	< 0.0091 J	< 0.91 J	< 0.0091	< 0.0091 J	< 0.091 J	< 0.0091	< 0.0091 J
8081A	Heptachlor	76-44-8	UG/L	0.4		0.015	D031	8		< 0.0077 J	< 0.0077	< 0.0077	< 0.0077	< 0.0077	< 0.0077 J	< 0.0077 J	1.3 J	< 0.0077	0.0087 J	< 0.077 J	< 0.0077	< 0.0077 J
8081A	Heptachlor epoxide	1024-57-3	UG/L	0.2		0.0074				< 0.0075 J	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075 J	< 0.0075 J	< 0.75 J	< 0.0075	< 0.0075 J	< 0.075 J	< 0.0075	< 0.0075 J
8081A	Methoxychlor	72-43-5	UG/L	40		180	D014	10000		< 0.013 J	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013 J	< 0.013 J	6.3 J	< 0.013	< 0.013 J	< 0.13 J	< 0.013	< 0.013 J
8081A	Toxaphene	8001-35-2	UG/L	3		0.061	D015	500		< 0.37 J	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37 J	< 0.37 J	< 37 J	< 0.37	< 0.37 J	< 3.7 J	< 0.37	< 0.37 J
	Herbicides																					
8151A	Dinoseb	88-85-7	UG/L	7		37				< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	2.1 J	6.0 J	0.34 J	< 1.2 J	5.2	0.90
Volatile Organic Compounds (VOCs)																						
8260B	1,1,1-Trichloroethane	71-55-6	UG/L	200		840				< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 18	< 0.36	< 0.36	< 7.2	< 0.36	< 0.36
8260B	1,1,2,2-Tetrachloroethane	79-34-5	UG/L			0.055				< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 16	< 0.31	< 0.31	< 6.2	< 0.31	< 0.31
8260B	1,1,2-Trichloroethane	79-00-5	UG/L	5		0.2				< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 18	< 0.35	< 0.35	< 7	< 0.35	< 0.35
8260B	1,1-Dichloroethane	75-34-3	UG/L			1200				< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 19	< 0.37	< 0.37	< 7.5	< 0.37	< 0.37
8260B	1,1-Dichloroethene	75-35-4	UG/L	7		340	D029	700		< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 21	< 0.43	< 0.43	< 8.5	< 0.43	< 0.43
8260B	1,2-Dibromoethane (EDB)	106-93-4	UG/L	0.05		0.0056				< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 15	< 0.3	< 0.3	< 6	< 0.3	< 0.3

Table 9
Summer 2008 Groundwater Sampling Analytical Data
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Primary Drinking Water Std (ug/L)	Secondary Drinking Water Std (ug/L)	TapWater MSSL (ug/l)	Haz waste Code	TCLP Reg Number(ug/l)	Sample ID Date Sampled	1MW-1 7/9/2008	1MW-2 7/10/2008	1MW-3 7/10/2008	1MW-4 7/10/2008	1MW-5 7/9/2008	1MW-6 7/9/2008	1MW-7 7/10/2008	2MW-1 7/13/2008	2MW-2 7/9/2008	2MW-3 7/10/2008	2MW-4 7/12/2008	2MW-5 7/10/2008	2MW-6 7/11/2008
8260B	1,2-Dichlorobenzene	95-50-1	UG/L	600		49				< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	1000	3.1	77	860	< 0.43	4.7
8260B	1,2-Dichloroethane	107-06-2	UG/L	5		0.12	D028	500		< 0.39	< 0.39	0.92 J	1.7	< 0.39	0.96 J	1.1	< 20	< 0.39	10	2200	< 0.39	< 0.39
8260B	1,2-Dichloroethene (total)	540-59-0	UG/L							< 0.73	< 0.73	< 0.73	< 0.73	< 0.73	< 0.73	< 0.73	< 37	< 0.73	< 0.73	< 15	< 0.73	< 0.73
8260B	1,2-Dichloropropane	78-87-5	UG/L	5		0.17				< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 19	< 0.37	< 0.37	< 7.5	< 0.37	< 0.37
8260B	1,3-Dichlorobenzene	541-73-1	UG/L			15				< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 19	< 0.39	< 0.39	< 7.7	< 0.39	< 0.39
8260B	1,4-Dichlorobenzene	106-46-7	UG/L	75		0.47	D027	7500		< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	21 J	< 0.38	0.87 J	16 J	< 0.38	< 0.38
8260B	2-Butanone (MEK)	78-93-3	UG/L			7100	D035	200000		< 0.84	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84	< 42	< 0.84	< 0.84	< 17	< 0.84	< 0.84
8260B	2-Hexanone	591-78-6	UG/L							< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 13	< 0.27	< 0.27	< 5.3	< 0.27	< 0.27
8260B	4-Methyl-2-pentanone (MIBK)	108-10-1	UG/L			2000				< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 21	< 0.42	1.4 J	< 8.3	< 0.42	< 0.42
8260B	Acetone	67-64-1	UG/L			5500				5.0 UB	< 0.82	< 0.82	5.0 UB	< 0.82	5.0 UB	5.0 UB	250 UB	5.0 UB	12 UB	< 16	5.0 UB	5.0 UB
8260B	Benzene	71-43-2	UG/L	5		0.35	D018	500		< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 20	< 0.39	0.61 J	< 7.8	< 0.39	< 0.39
8260B	Bromobenzene	108-86-1	UG/L			23				< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 20	< 0.39	< 0.39	< 7.9	< 0.39	< 0.39
8260B	Bromochloromethane	74-97-5	UG/L							< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 18	< 0.37	< 0.37	< 7.4	< 0.37	< 0.37
8260B	Bromodichloromethane	75-27-4	UG/L			0.18				< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 18	< 0.37	< 0.37	< 7.4	< 0.37	< 0.37
8260B	Bromoform	75-25-2	UG/L			8.5				< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 13	< 0.27	< 0.27	< 5.4	< 0.27	< 0.27
8260B	Bromomethane	74-83-9	UG/L			8.7				< 0.72	< 0.72	< 0.72	< 0.72	< 0.72	< 0.72	< 0.72	< 36	< 0.72	< 0.72	< 14	< 0.72	< 0.72
8260B	Carbon disulfide	75-15-0	UG/L			1000				< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	0.69 J	< 0.38	< 19	< 0.38	< 0.38	< 7.7	< 0.38	< 0.38
8260B	Carbon tetrachloride	56-23-5	UG/L	5		0.17	D019	500		< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 20	< 0.41	< 0.41	< 8.1	< 0.41	< 0.41
8260B	Chlorobenzene	108-90-7	UG/L	100		91	D021	100000		< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	63	< 0.33	4.8	220	< 0.33	< 0.33
8260B	Chloroethane	75-00-3	UG/L			3.9				< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 22	< 0.45	3.3	< 9	< 0.45	< 0.45
8260B	Chloroform	67-66-3	UG/L			0.17	D022	6000		< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 17	< 0.35	< 0.35	< 7	0.80 J	0.64 J
8260B	Chloromethane	74-87-3	UG/L			2.1				0.96 J	< 0.48	< 0.48	< 0.48	0.59 J	< 0.48	< 0.48	< 24	< 0.48	< 0.48	< 9.6	< 0.48	< 0.48
8260B	cis-1,2-Dichloroethene	156-59-2	UG/L	70		61				< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 18	< 0.37	< 0.37	< 7.3	< 0.37	< 0.37
8260B	cis-1,3-Dichloropropene	10061-01-5	UG/L			0.4				< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 15	< 0.31	< 0.31	< 6.1	< 0.31	< 0.31
8260B	Dibromochloromethane	124-48-1	UG/L			0.13				< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 14	< 0.28	< 0.28	< 5.6	< 0.28	< 0.28
8260B	Dibromomethane	74-95-3	UG/L			61				< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 20	< 0.41	< 0.41	< 8.1	< 0.41	< 0.41
8260B	Ethylbenzene	100-41-4	UG/L	700		1300				< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 21	< 0.42	< 0.42	9.7 J	< 0.42	< 0.42
8260B	Methylene chloride	75-09-2	UG/L	5		4.3				< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	120	< 0.42	< 0.42	< 8.4	< 0.42	< 0.42
8260B	m-Xylene & p-Xylene	136777-61-2	UG/L							< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 41	< 0.83	< 0.83	< 17	< 0.83	< 0.83
8260B	o-Xylene	95-47-6	UG/L			1400				< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 19	< 0.39	< 0.39	< 7.7	< 0.39	< 0.39
8260B	Styrene	100-42-5	UG/L	100		1600				< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 16	< 0.31	< 0.31	< 6.2	< 0.31	< 0.31
8260B	Tetrachloroethene	127-18-4	UG/L	5		0.11	D039	700		< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 20	< 0.4	< 0.4	< 8	< 0.4	< 0.4
8260B	Toluene	108-88-3	UG/L	1000		2300				< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 20	< 0.39	0.60 J	< 7.8	< 0.39	< 0.39
8260B	trans-1,2-Dichloroethene	156-60-5	UG/L	100		110				< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 19	< 0.37	< 0.37	< 7.4	< 0.37	< 0.37
8260B	trans-1,3-Dichloropropene	10061-02-6	UG/L			0.4				< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 10	< 0.21	< 0.21	< 4.2	< 0.21	< 0.21
8260B	Trichloroethene	79-01-6	UG/L	5		0.028	D040	500		< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 22	< 0.45	< 0.45	< 9	< 0.45	< 0.45
8260B	Trichlorofluoromethane	75-69-4	UG/L			1300				< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 24	< 0.47	< 0.47	< 9.5	< 0.47	< 0.47
8260B	Vinyl acetate	108-05-4	UG/L			410				< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 15	< 0.29	< 0.29	< 5.9	< 0.29	< 0.29
8260B	Vinyl chloride	75-01-4	UG/L	2		0.015	D043	200		< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 20	< 0.4	< 0.4	< 8	< 0.4	< 0.4
8260B	Xylenes (total)	1330-20-7	UG/L	10000		200				< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 60	< 1.2	< 1.2	< 24	< 1.2	< 1.2
Semivolatile Organic Compounds (SVOCs)																						
8270C	1,2,4-Trichlorobenzene	120-82-1	UG/L	70		8.2				< 0.83	< 0.84	< 0.84	< 0.81	< 0.82	< 0.81	< 0.81	< 8.4	< 0.84	< 0.8	< 4.1	< 0.81	< 0.81
8270C	1,2-Dichlorobenzene	95-50-1	UG/L	600		49				< 0.96	< 0.97	< 0.97	< 0.93	< 0.95	< 0.93	< 0.94	1100	1.8 J	59	700	< 0.93	2.9 J
8270C	1,3-Dichlorobenzene	541-73-1	UG/L			15				< 0.98	< 0.99	< 0.99	< 0.95	< 0.97	< 0.95	< 0.96	< 9.9	< 0.99	< 0.94	< 4.8	< 0.95	< 0.96
8270C	1,4-Dichlorobenzene	106-46-7	UG/L	75		0.47	D027	7500		< 0.8	< 0.81	< 0.81	< 0.78	< 0.79	< 0.78	< 0.78	17 J	< 0.81	< 0.77	12 J	< 0.78	< 0.78
8270C	2,4,5-Trichlorophenol	95-95-4	UG/L			3700	D041	400000		< 0.99	< 1	< 1	< 0.96	< 0.98	< 0.96	< 0.97	< 10	< 1	< 0.95	< 4.9	< 0.96	< 0.97
8270C	2,4,6-Trichlorophenol	88-06-2	UG/L			6.1	D042	2000		< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 11	< 1.1	< 1	< 5.3	< 1.1	< 1.1
8270C	2,4-Dichlorophenol	120-83-2	UG/L			110				< 1	< 1	< 1	< 0.99	< 1	< 0.99	< 1	60 J	< 1	< 0.98	16 J	< 0.99	< 1
8270C	2,4-Dimethylphenol	105-67-9	UG/L			730				< 1.9	< 1.9	< 1.9	< 1.8	< 1.9	< 1.8	< 1.8	< 19	< 1.9	< 1.8	< 9.2	< 1.8	< 1.8
8270C	2,4-Dinitrophenol	51-28-5	UG/L			73				< 3.7	< 3.7	< 3.7	< 3.6	< 3.7	< 3.6	< 3.6	< 37	< 3.7	< 3.6	< 18	< 3.6	< 3.6
8270C	2,4-Dinitrotoluene	121-14-2	UG/L			73	D030	130		< 2.9	< 2.9	< 2.9	< 2.8	< 2.8	< 2.8	< 2.8	< 29	< 2.9	< 2.7	< 14	< 2.8	< 2.8
8270C	2,6-Dinitrotoluene	606-20-2	UG/L			37				< 1	< 1	< 1	< 0.98	< 1	< 0.98	< 1	< 10	< 1	< 0.97	< 5	< 0.98	< 1
8270C	2-Chloronaphthalene	91-58-7	UG/L			490				< 1.4	< 1.5	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4	< 15	< 1.5	< 1.4	< 7.1	< 1.4	< 1.4
8270C	2-Chlorophenol	95-57-8	UG/L			30				< 1.5	< 1.5	< 1.5	< 1.4	< 1.5	< 1.4	< 1.4	< 15	< 1.5	< 1.4	< 7.2	< 1.4	< 1.4
8270C	2-Methylnaphthalene	91-57-6	UG/L							< 0.96	< 0.97	< 0.97	< 0.93	< 0.95	< 0.93	< 0.94	< 9.7	< 0.97	< 0.92	< 4.7	< 0.93	< 0.94

Table 9
Summer 2008 Groundwater Sampling Analytical Data
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Primary Drinking Water Std (ug/L)	Secondary Drinking Water Std (ug/L)	TapWater MSSL (ug/l)	Haz waste Code	TCLP Reg Number(ug/l)	Sample ID Date Sampled	1MW-1 7/9/2008	1MW-2 7/10/2008	1MW-3 7/10/2008	1MW-4 7/10/2008	1MW-5 7/9/2008	1MW-6 7/9/2008	1MW-7 7/10/2008	2MW-1 7/13/2008	2MW-2 7/9/2008	2MW-3 7/10/2008	2MW-4 7/12/2008	2MW-5 7/10/2008	2MW-6 7/11/2008
8270C	2-Methylphenol	95-48-7	UG/L			1800	D023	200000		< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 18	< 1.8	< 1.7	< 8.8	< 1.8	< 1.8
8270C	2-Nitroaniline	88-74-4	UG/L			110				< 1.2	< 1.2	< 1.2	< 1.1	< 1.2	< 1.1	< 1.2	< 12	< 1.2	< 1.1	< 5.8	< 1.1	< 1.2
8270C	2-Nitrophenol	88-75-5	UG/L							< 1	< 1.1	< 1.1	< 1	< 1	< 1	< 1	< 11	< 1.1	< 1	< 5.1	< 1	< 1
8270C	3,3'-Dichlorobenzidine	91-94-1	UG/L			0.15				< 1.7 J	< 1.7 J	< 1.7 J	< 1.6 J	< 1.7 J	< 1.6 J	< 1.7 J	< 17	< 1.7 J	< 1.6 J	< 8.3	< 1.6 J	< 1.7 J
8270C	3,4-Dichloroaniline	95-76-1	UG/L							< 1	< 1	< 1	< 0.98	< 1	2.1 J	< 1	50000	5.1 J	220	17000	< 0.98	1.1 J
8270C	3-Methylphenol & 4-Methylphenol	65794-96-9	UG/L			180				< 2.6	< 2.6	< 2.6	< 2.5	< 2.5	< 2.5	< 2.5	< 26	< 2.6	< 2.5	< 13	< 2.5	< 2.5
8270C	3-Nitroaniline	99-09-2	UG/L							< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 12	< 1.2	< 1.2	< 5.9	< 1.2	< 1.2
8270C	4,6-Dinitro-2-methylphenol	534-52-1	UG/L							< 3.5	< 3.6	< 3.6	< 3.4	< 3.5	< 3.4	< 3.5	< 36 J	< 3.6	< 3.4	< 17 J	< 3.4	< 3.5
8270C	4-Bromophenyl phenyl ether	101-55-3	UG/L							< 0.92	< 0.93	< 0.93	< 0.9	< 0.91	< 0.9	< 0.91	< 9.3	< 0.93	< 0.89	< 4.5	< 0.9	< 0.91
8270C	4-Chloro-3-methylphenol	59-50-7	UG/L							< 1.1	< 1.1	< 1.1	< 1	< 1.1	< 1	< 1	< 11	< 1.1	< 1	< 5.2	< 1	< 1
8270C	4-Chloroaniline	106-47-8	UG/L			150				< 1.6	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6	340	< 1.7	2.7 J	380	< 1.6	< 1.6
8270C	4-Chlorophenyl phenyl ether	7005-72-3	UG/L							< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 14	< 1.4	< 1.4	< 7	< 1.4	< 1.4
8270C	4-Nitroaniline	100-01-6	UG/L							< 1.1	< 1.1	< 1.1	< 1	< 1.1	< 1	< 1.1	< 11	< 1.1	< 1	< 5.3	< 1	< 1.1
8270C	4-Nitrophenol	100-02-7	UG/L			290				< 4.1	< 4.1	< 4.1	< 3.9	< 4	< 3.9	< 4	< 41	< 4.1	< 3.9	< 20	< 3.9	< 4
8270C	Acenaphthene	83-32-9	UG/L			370				< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 11	< 1.1	< 1	< 5.3	< 1.1	< 1.1
8270C	Acenaphthylene	208-96-8	UG/L							< 0.9	< 0.9	< 0.9	< 0.87	< 0.89	< 0.87	< 0.88	< 9	< 0.9	< 0.86	< 4.4	< 0.87	< 0.88
8270C	Aniline	62-53-3	UG/L			12				< 2 J	< 2 J	< 2 J	< 2	< 2 J	< 2 J	< 2 J	< 20	< 2 J	< 1.9 J	< 9.9	< 2 J	< 2 J
8270C	Anthracene	120-12-7	UG/L			1800				< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 11	< 1.1	< 1.1	< 5.5	< 1.1	< 1.1
8270C	Benzo(a)anthracene	56-55-3	UG/L			0.03				< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 11	< 1.1	< 1.1	< 5.4	< 1.1	< 1.1
8270C	Benzo(a)pyrene	50-32-8	UG/L	0.2		0.003				< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 11	< 1.1	< 1.1	< 5.4	< 1.1	< 1.1
8270C	Benzo(b)fluoranthene	205-99-2	UG/L			0.03				< 0.78	< 0.79	< 0.79	< 0.76	< 0.77	< 0.76	< 0.76	< 7.9	< 0.79	< 0.75	< 3.8	< 0.76	< 0.76
8270C	Benzo(ghi)perylene	191-24-2	UG/L							< 0.75	< 0.76	< 0.76	< 0.73	< 0.75	< 0.73	< 0.74	< 7.6	< 0.76	< 0.72	< 3.7	< 0.73	< 0.74
8270C	Benzo(k)fluoranthene	207-08-9	UG/L			0.3				< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 12	< 1.2	< 1.2	< 6	< 1.2	< 1.2
8270C	Benzoic acid	65-85-0	UG/L			150000				< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 130	< 13	< 13	< 65	< 13	< 13
8270C	Benzyl alcohol	100-51-6	UG/L			11000				< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 16	< 1.6	< 1.6	< 7.9	< 1.6	< 1.6
8270C	bis(2-Chloroethoxy)methane	111-91-1	UG/L							< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 11	< 1.1	< 1.1	< 5.5	< 1.1	< 1.1
8270C	bis(2-Chloroethyl) ether	111-44-4	UG/L			0.0098				< 1.2	< 1.2	< 1.2	< 1.1	< 1.2	< 1.1	< 1.2	< 12	< 1.2	40	< 5.8	< 1.1	< 1.2
8270C	bis(2-Chloroisopropyl) ether	108-60-1	UG/L			0.27				< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 12	< 1.2	< 1.2	< 5.9	< 1.2	< 1.2
8270C	bis(2-Ethylhexyl) phthalate	117-81-7	UG/L	6		4.8				< 2.7	< 2.7	< 2.7	< 2.6	< 2.7	< 2.6	4.5 J	< 27	< 2.7	< 2.6	< 13	6.0 J	< 2.7
8270C	Butyl benzyl phthalate	85-68-7	UG/L			7300				< 0.98	< 0.99	< 0.99	< 0.95	< 0.97	< 0.95	< 0.96	< 9.9	< 0.99	< 0.94	< 4.8	< 0.95	< 0.96
8270C	Chrysene	218-01-9	UG/L			3				< 1.1	< 1.1	< 1.1	< 1	< 1.1	< 1	< 1	< 11	< 1.1	< 1	< 5.2	< 1	< 1
8270C	Dibenz(a,h)anthracene	53-70-3	UG/L			0.003				< 1	< 1	< 1	< 0.97	< 0.99	< 0.97	< 0.98	< 10	< 1	< 0.96	< 4.9	< 0.97	< 0.98
8270C	Dibenzofuran	132-64-9	UG/L			12				< 1	< 1.1	< 1.1	< 1	< 1	< 1	< 1	< 11	< 1.1	< 1	< 5.1	< 1	< 1
8270C	Diethyl phthalate	84-66-2	UG/L			29000				< 1.5	< 1.5	< 1.5	< 1.4	2.4 J	< 1.4	< 1.4	< 15	< 1.5	< 1.4	< 7.1	< 1.4	< 1.4
8270C	Dimethyl phthalate	131-11-3	UG/L			370000				< 1.3	< 1.3	< 1.3	< 1.2	< 1.2	< 1.2	< 1.2	< 13	< 1.3	< 1.2	< 6.1	< 1.2	< 1.2
8270C	Di-n-butyl phthalate	84-74-2	UG/L			3700				< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 11	< 1.1	< 1.1	< 5.5	< 1.1	< 1.1
8270C	Di-n-octyl phthalate	117-84-0	UG/L							< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 11	< 1.1	< 1.1	< 5.4	< 1.1	< 1.1
8270C	Dinoseb	88-85-7	UG/L	7		37				< 0.41	< 0.41	< 0.41	< 0.4	< 0.4	< 0.4	< 0.4	< 4.1	4.7 J	< 0.39	< 2	3.5 J	3.0 J
8270C	Fluoranthene	206-44-0	UG/L			1500				< 0.91	< 0.92	< 0.92	< 0.88	< 0.9	< 0.88	< 0.89	< 9.2	< 0.92	< 0.87	< 4.5	< 0.88	< 0.89
8270C	Fluorene	86-73-7	UG/L			240				< 1	< 1	< 1	< 0.97	< 0.99	< 0.97	< 0.98	< 10	< 1	< 0.96	< 4.9	< 0.97	< 0.98
8270C	Hexachlorobenzene	118-74-1	UG/L	1		0.042	D032	130		< 1.5	< 1.5	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4	< 15	< 1.5	< 1.4	< 7.1	< 1.4	< 1.4
8270C	Hexachlorobutadiene	87-68-3	UG/L			0.86	D033	500		< 1.3	< 1.3	< 1.3	< 1.2	< 1.2	< 1.2	< 1.2	< 13	< 1.3	< 1.2	< 6.2	< 1.2	< 1.2
8270C	Hexachlorocyclopentadiene	77-47-4	UG/L	50		220				< 3.4	< 3.4	< 3.4	< 3.3	< 3.3	< 3.3	< 3.3	< 34	< 3.4	< 3.2	< 17	< 3.3	< 3.3
8270C	Hexachloroethane	67-72-1	UG/L			4.8	D034	3000		< 0.93	< 0.94	< 0.94	< 0.9	< 0.92	< 0.9	< 0.91	< 9.4	< 0.94	< 0.89	< 4.6	< 0.9	< 0.91
8270C	Indeno(1,2,3-cd)pyrene	193-39-5	UG/L			0.03				< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 11	< 1.1	< 1.1	< 5.6	< 1.1	< 1.1
8270C	Isophorone	78-59-1	UG/L			71				< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 11	< 1.1	< 1	< 5.3	< 1.1	< 1.1
8270C	Naphthalene	91-20-3	UG/L			6.2				< 0.87	< 0.88	< 0.88	< 0.84	< 0.86	< 0.84	< 0.85	< 8.8	< 0.88	< 0.83	< 4.2	< 0.84	< 0.85
8270C	Nitrobenzene	98-95-3	UG/L			3.4	D036	2000		< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 11	< 1.1	< 1.1	< 5.4	< 1.1	< 1.1
8270C	N-Nitrosodi-n-propylamine	621-64-7	UG/L			0.0096				< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1	< 0.99	< 5	< 1	< 1
8270C	N-Nitrosodiphenylamine	86-30-6	UG/L			14				< 0.93	< 0.94	< 0.94	< 0.9	< 0.92	< 0.9	< 0.91	< 9.4	< 0.94	< 0.89	< 4.5	< 0.9	< 0.91
8270C	Pentachlorophenol	87-86-5	UG/L	1		0.56	D037	100000		< 5.4	< 5.4	< 5.4	< 5.2	< 5.3	< 5.2	< 5.3	< 54	< 5.4	< 5.2	< 26	< 5.2	< 5.3
8270C	Phenanthrene	85-01-8	UG/L							< 0.99	< 1	< 1	< 0.96	< 0.98	< 0.96	< 0.97	< 10	< 1	< 0.95	< 4.8	< 0.96	< 0.97
8270C	Phenol	108-95-2	UG/L			11000				< 2.1	< 2.1	< 2.1	< 2	< 2.1	< 2	< 2.1	36 J	< 2.1	< 2	40 J	< 2	< 2.1
8270C	Propanil	709-98-8	UG/L			180				< 0.78	< 0.79	< 0.79	< 0.75	< 0.77	< 0.75	< 0.76	360	< 0.79	3.7 J	120	< 0.75	< 0.76
8270C	Pyrene	129-00-0	UG/L			180				< 0.91	< 0.92	< 0.92	< 0.88	< 0.9	< 0.88	< 0.89	< 9.2	< 0.92	< 0.87	< 4.4	< 0.88	< 0.89

Table 9
Summer 2008 Groundwater Sampling Analytical Data
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Primary Drinking Water Std (ug/L)	Secondary Drinking Water Std (ug/L)	TapWater MSSL (ug/l)	Haz waste Code	TCLP Reg Number(ug/l)	Sample ID Date Sampled	2MW-7 7/11/2008	4MW-1 7/13/2008	4MW-3 7/12/2008	4MW-4 7/8/2008	9MW-1 7/13/2008	DUP-1 7/10/2008	DUP-2 7/13/2008	DUP-3 7/13/2008	DUP-4 7/25/2008	EMW-1 7/13/2008	EMW-4 7/13/2008	EMW-6 7/9/2008	EMW-6A 7/9/2008
	Metals																					
6020	Aluminum	7429-90-5	UG/L		50	37000				71.2	< 30.3	< 30.3	338	< 30.3	173	55.1	< 30.3	818 J	56.5	74.3	< 30.3	945
6020	Antimony	7440-36-0	UG/L	6		15				< 0.029	1.0 UB	1.0 UB	1.0 UB	1.0 UB	1.0 UB	1.0 UB	1.0 UB	1.0 UB	1.0 UB	1.0 UB	1.0 UB	1.0 UB
6020	Arsenic	7440-38-2	UG/L	10		0.045	D004	5000		16.5	34.5	1.2	20.1	45.6	0.38 J	1.5	35.5	1.0 UB	1.4	14.6	4.1	6.8
6020	Barium	7440-39-3	UG/L	2000		7300	D005	100000		215	830	135	105	243	486	88.1	846	281	86.5	329	218	880
6020	Beryllium	7440-41-7	UG/L	4		73				< 0.023	0.037 J	< 0.023	< 0.023	0.028 J	< 0.023	< 0.023	0.036 J	0.094 J	< 0.023	0.024 J	< 0.023	0.074 J
6020	Cadmium	7440-43-9	UG/L	5		18	D006	1000		0.024 J	0.060 J	0.060 J	0.050 J	0.086 J	< 0.023	0.10 J	0.042 J	0.067 J	0.10 J	< 0.023	< 0.023	0.088 J
6020	Calcium	7440-70-2	UG/L							109000	286000	113000	164000	127000	102000	65700	296000	93900	65300	117000	94700	250000
6020	Chromium	7440-47-3	UG/L	100			D007	5000		2.2	3.5	9.1	1.1	9.3	5.9	26.0	3.0	2.6	26.7	1.8	0.63 J	48.4
6020	Cobalt	7440-48-4	UG/L			730				0.80 J	1.5	0.40 J	0.85 J	1.8	0.34 J	0.76 J	1.5	1.1	0.75 J	0.27 J	0.27 J	2.6
6020	Copper	7440-50-8	UG/L	1300	1000	1400				0.93 J	24.9 J	1.5	4.4	4.9	1.4	2.5	4.8 J	1.7	2.6	0.90 J	0.45 J	7.0
6020	Iron	7439-89-6	UG/L		300	26000				4740	58700	43.9 J	15700	16600	3030	275	57600	11400	270	3290	4770	14500
6020	Lead	7439-92-1	UG/L	15		15	D008	5000		0.27 J	1.0	0.84 J	0.65 J	0.89 J	0.72 J	0.34 J	0.76 J	1.5	0.33 J	0.27 J	0.087 J	6.5
6020	Magnesium	7439-95-4	UG/L							46700	96700	43800	92800	108000	42500	35800	101000	38800	35300	62100	40900	111000
6020	Manganese	7439-96-5	UG/L		50	1700				845	5630	45.0	1980	11200	304	90.5	5880	708	88.0	323	314	684
6020	Nickel	7440-02-0	UG/L			730				5.2	26.5	4.8	9.8	18.8	6.9	25.2	26.4	17.9	24.9	17.2	11.4	62.5
6020	Potassium	7440-09-7	UG/L							1700	5000	1290	3870 J	10900	1610 J	1090	5020	2990	1080	1500	4060 J	1340 J
6020	Selenium	7782-49-2	UG/L	50		180	D010	1000		< 0.11	1.3	< 0.11	0.41 J	< 0.11	< 0.11	< 0.11	0.68 J	1.0 UB	< 0.11	< 0.11	< 0.11	0.21 J
6020	Silver	7440-22-4	UG/L		100	180	D011	5000		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	0.29 J	< 0.04	< 0.04
6020	Sodium	7440-23-5	UG/L							12800	1320000	29800	297000	132000	17400	93300	1290000	37600	92100	164000	35600	43800
6020	Thallium	7440-28-0	UG/L	2		2.6				< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	0.026 J
6020	Vanadium	7440-62-2	UG/L			180				0.54 J	16.9	2.6	8.3	20.7	0.64 J	2.0	15.8	2.0	1.5	0.98 J	0.17 J	2.6
6020	Zinc	7440-66-6	UG/L		5000	11000				11.7	33.7	7.9 J	8.3 J	33.9	25.8	17.5	31.8	19.4	17.5	15.6	9.8 J	53.7
	Organochlorine Pesticides																					
8081A	4,4'-DDD	72-54-8	UG/L			0.28				< 0.0077 J	< 0.077 J	< 0.0077	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077	< 0.077 J	< 0.0077 J	< 0.0077	< 0.0077	< 0.0077 J	< 0.0077 J
8081A	4,4'-DDE	72-55-9	UG/L			0.2				< 0.0075 J	< 0.075 J	< 0.0075	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075	< 0.075 J	< 0.0075 J	< 0.0075	< 0.0075	< 0.0075 J	< 0.0075 J
8081A	4,4'-DDT	50-29-3	UG/L			0.2				< 0.015 J	< 0.15 J	< 0.015	< 0.015 J	< 0.015 J	< 0.015 J	< 0.015	< 0.15 J	< 0.015 J	< 0.015	< 0.015	< 0.015 J	< 0.015 J
8081A	Aldrin	309-00-2	UG/L			0.004				< 0.0059 J	< 0.059 J	< 0.0059	< 0.0059 J	< 0.0059 J	< 0.0059 J	< 0.0059	< 0.059 J	< 0.0059 J	< 0.0059	< 0.0059	< 0.0059 J	< 0.0059 J
8081A	alpha-BHC	319-84-6	UG/L			0.011				< 0.0053 J	0.24 J	< 0.0053	< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053	0.17 J	< 0.0053 J	< 0.0053	0.014 J	< 0.0053 J	< 0.0053 J
8081A	alpha-Chlordane	5103-71-9	UG/L							< 0.0053 J	< 0.053 J	0.0059 J	< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053	< 0.053 J	< 0.0053 J	< 0.0053	0.034 J	< 0.0053 J	< 0.0053 J
8081A	beta-BHC	319-85-7	UG/L			0.037				< 0.0087 J	< 0.087 J	< 0.0087	< 0.0087 J	0.010 J	< 0.0087 J	< 0.0087	< 0.087 J	< 0.0087 J	< 0.0087	< 0.0087	< 0.0087 J	< 0.0087 J
8081A	Chlordane (technical)	57-74-9	UG/L	2		0.19	D020	30		< 0.14 J	< 1.4 J	< 0.14	< 0.14 J	< 0.14 J	< 0.14 J	< 0.14	< 1.4 J	< 0.14 J	< 0.14	< 0.14	< 0.14 J	< 0.14 J
8081A	delta-BHC	319-86-8	UG/L							< 0.0058 J	< 0.058 J	0.016 J	< 0.0058 J	< 0.0058 J	< 0.0058 J	0.0093 J	< 0.058 J	< 0.0058 J	0.0087 J	< 0.0058	< 0.0058 J	< 0.0058 J
8081A	Dieldrin	60-57-1	UG/L			0.0042				< 0.0063 J	< 0.063 J	< 0.0063	< 0.0063 J	< 0.0063 J	< 0.0063 J	< 0.0063	< 0.063 J	< 0.0063 J	< 0.0063	< 0.0063	< 0.0063 J	< 0.0063 J
8081A	Endosulfan I	959-98-8	UG/L							< 0.0058 J	< 0.058 J	< 0.0058	< 0.0058 J	< 0.0058 J	< 0.0058 J	< 0.0058	< 0.058 J	< 0.0058 J	< 0.0058	< 0.0058	< 0.0058 J	< 0.0058 J
8081A	Endosulfan II	33213-65-9	UG/L							< 0.007 J	< 0.07 J	< 0.007	< 0.007 J	< 0.007 J	< 0.007 J	< 0.007	< 0.07 J	< 0.007 J	< 0.007	< 0.007	< 0.007 J	< 0.007 J
8081A	Endosulfan sulfate	1031-07-8	UG/L							< 0.0057 J	0.17 J	< 0.0057	< 0.0057 J	< 0.0057 J	< 0.0057 J	< 0.0057	< 0.057 J	< 0.0057 J	< 0.0057	< 0.0057	< 0.0057 J	< 0.0057 J
8081A	Endrin	72-20-8	UG/L	2		11	D012	20		< 0.0079 J	< 0.079 J	< 0.0079	< 0.0079 J	0.014 J	< 0.0079 J	< 0.0079	< 0.079 J	< 0.0079 J	< 0.0079	< 0.0079	< 0.0079 J	< 0.0079 J
8081A	Endrin aldehyde	7421-93-4	UG/L							< 0.0088 J	< 0.088 J	< 0.0088	< 0.0088 J	0.013 J	< 0.0088 J	< 0.0088	< 0.088 J	< 0.0088 J	< 0.0088	< 0.0088	< 0.0088 J	< 0.0088 J
8081A	Endrin ketone	53494-70-5	UG/L							< 0.007 J	< 0.07 J	< 0.007	< 0.007 J	< 0.007 J	< 0.007 J	< 0.007	< 0.07 J	< 0.007 J	< 0.007	< 0.007	< 0.007 J	< 0.007 J
8081A	gamma-BHC (Lindane)	58-89-9	UG/L	0.2		0.052	D013	400		< 0.0069 J	0.19 J	< 0.0069	< 0.0069 J	< 0.0069 J	< 0.0069 J	< 0.0069	< 0.069 J	< 0.0069 J	< 0.0069	< 0.0069	< 0.0069 J	< 0.0069 J
8081A	gamma-Chlordane	5103-74-2	UG/L							< 0.0091 J	< 0.091 J	< 0.0091	< 0.0091 J	< 0.0091 J	< 0.0091 J	0.039 J	< 0.091 J	< 0.0091 J	< 0.0091	< 0.0091	< 0.0091 J	< 0.0091 J
8081A	Heptachlor	76-44-8	UG/L	0.4		0.015	D031	8		< 0.0077 J	< 0.077 J	< 0.0077	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077	0.26 J	< 0.0077 J	< 0.0077	< 0.0077	< 0.0077 J	< 0.0077 J
8081A	Heptachlor epoxide	1024-57-3	UG/L	0.2		0.0074				< 0.0075 J	< 0.075 J	< 0.0075	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075	< 0.075 J	< 0.0075 J	< 0.0075	< 0.0075	< 0.0075 J	< 0.0075 J
8081A	Methoxychlor	72-43-5	UG/L	40		180	D014	10000		< 0.013 J	< 0.13 J	< 0.013	< 0.013 J	< 0.013 J	< 0.013 J	0.014 J	< 0.13 J	< 0.013 J	< 0.013	< 0.013	< 0.013 J	< 0.013 J
8081A	Toxaphene	8001-35-2	UG/L	3		0.061	D015	500		< 0.37 J	< 3.7 J	< 0.37	< 0.37 J	< 0.37 J	< 0.37 J	< 0.37	< 3.7 J	< 0.37 J	< 0.37	< 0.37	< 0.37 J	< 0.37 J
	Herbicides																					
8151A	Dinoseb	88-85-7	UG/L	7		37				< 0.24	11 J	0.70 J	0.54 J	1.5 J	< 0.24	0.41 J	< 1.2 J	< 0.24 J	0.35 J	2.2	0.49 J	2.9 J
Volatile Organic Compounds (VOCs)																						
8260B	1,1,1-Trichloroethane	71-55-6	UG/L	200		840				< 0.36	< 7.2	< 0.36	< 0.72	< 3.6	< 0.36	< 0.36	< 7.2	< 0.36	< 0.36	< 0.36	< 0.36	< 3.6
8260B	1,1,2,2-Tetrachloroethane	79-34-5	UG/L			0.055				< 0.31	< 6.2	< 0.31	< 0.62	< 3.1	< 0.31	< 0.31	< 6.2	< 0.31	< 0.31	< 0.31	< 0.31	< 3.1
8260B	1,1,2-Trichloroethane	79-00-5	UG/L	5		0.2				< 0.35	< 7	0.37 J	< 0.7	< 3.5	< 0.35	< 0.35	< 7	< 0.35	< 0.35	< 0.35	< 0.35	< 3.5
8260B	1,1-Dichloroethane	75-34-3	UG/L			1200				< 0.37	< 7.5	< 0.37	< 0.75	< 3.7	< 0.37	< 0.37	< 7.5	< 0.37	< 0.37	< 0.37	< 0.37	< 3.7
8260B	1,1-Dichloroethene	75-35-4	UG/L	7		340	D029	700		< 0.43	< 8.5	< 0.43	< 0.85	< 4.3	< 0.43	< 0.43	< 8.5	< 0.43	< 0.43	< 0.43	< 0.43	< 4.3
8260B	1,2-Dibromoethane (EDB)	106-93-4	UG/L	0.05		0.0056				< 0.3	< 6	< 0.3	< 0.6	< 3	< 0.3	< 0.3	< 6	< 0.3	< 0.3	< 0.3	< 0.3	< 3

Table 9
Summer 2008 Groundwater Sampling Analytical Data
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Primary Drinking Water Std (ug/L)	Secondary Drinking Water Std (ug/L)	TapWater MSSL (ug/l)	Haz waste Code	TCLP Reg Number(ug/l)	Sample ID Date Sampled	2MW-7 7/11/2008	4MW-1 7/13/2008	4MW-3 7/12/2008	4MW-4 7/8/2008	9MW-1 7/13/2008	DUP-1 7/10/2008	DUP-2 7/13/2008	DUP-3 7/13/2008	DUP-4 7/25/2008	EMW-1 7/13/2008	EMW-4 7/13/2008	EMW-6 7/9/2008	EMW-6A 7/9/2008
8260B	1,2-Dichlorobenzene	95-50-1	UG/L	600		49				< 0.43	580	0.53 J	2.4	56	< 0.43	< 0.43	490	< 0.43	< 0.43	60	< 0.43	< 4.3
8260B	1,2-Dichloroethane	107-06-2	UG/L	5		0.12	D028	500		< 0.39	90	520	120	430	1.2	0.62 J	70	< 0.39	0.61 J	2.2	< 0.39	420
8260B	1,2-Dichloroethene (total)	540-59-0	UG/L							< 0.73	< 15	< 0.73	< 1.5	< 7.3	< 0.73	< 0.73	< 15	< 0.73	< 0.73	< 0.73	< 0.73	< 7.3
8260B	1,2-Dichloropropane	78-87-5	UG/L	5		0.17				< 0.37	< 7.5	1.0	< 0.75	< 3.7	< 0.37	< 0.37	< 7.5	< 0.37	< 0.37	< 0.37	< 0.37	< 3.7
8260B	1,3-Dichlorobenzene	541-73-1	UG/L			15				< 0.39	< 7.7	3.5	< 0.77	< 3.9	< 0.39	< 0.39	< 7.7	< 0.39	< 0.39	< 0.39	< 0.39	< 3.9
8260B	1,4-Dichlorobenzene	106-46-7	UG/L	75		0.47	D027	7500		< 0.38	16 J	< 0.38	< 0.75	< 3.8	< 0.38	< 0.38	13 J	< 0.38	< 0.38	0.96 J	< 0.38	< 3.8
8260B	2-Butanone (MEK)	78-93-3	UG/L			7100	D035	200000		< 0.84	< 17	< 0.84	< 1.7	< 8.4	< 0.84	< 0.84	< 17	< 0.84	< 0.84	1.3 J	< 0.84	< 8.4
8260B	2-Hexanone	591-78-6	UG/L							< 0.27	< 5.3	< 0.27	< 0.53	< 2.7	< 0.27	< 0.27	< 5.3	0.65 J	< 0.27	< 0.27	< 0.27	< 2.7
8260B	4-Methyl-2-pentanone (MIBK)	108-10-1	UG/L			2000				< 0.42	50 J	< 0.42	< 0.83	< 4.2	< 0.42	< 0.42	34 J	< 0.42	< 0.42	< 0.42	< 0.42	< 4.2
8260B	Acetone	67-64-1	UG/L			5500				5.0 UB	100 UB	5.0 UB	2.1 J	50 UB	< 0.82	5.0 UB	110 UB	3.5 J	5.0 UB	19 UB	< 0.82	< 8.2
8260B	Benzene	71-43-2	UG/L	5		0.35	D018	500		< 0.39	63	< 0.39	< 0.78	< 3.9	< 0.39	< 0.39	51	< 0.39	< 0.39	2.5	< 0.39	< 3.9
8260B	Bromobenzene	108-86-1	UG/L			23				< 0.39	< 7.9	< 0.39	< 0.79	< 3.9	< 0.39	< 0.39	< 7.9	< 0.39	< 0.39	< 0.39	< 0.39	< 3.9
8260B	Bromochloromethane	74-97-5	UG/L							< 0.37	< 7.4	< 0.37	< 0.74	< 3.7	< 0.37	< 0.37	< 7.4	< 0.37	< 0.37	< 0.37	< 0.37	< 3.7
8260B	Bromodichloromethane	75-27-4	UG/L			0.18				< 0.37	< 7.4	< 0.37	< 0.74	< 3.7	< 0.37	< 0.37	< 7.4	< 0.37	< 0.37	< 0.37	< 0.37	< 3.7
8260B	Bromoform	75-25-2	UG/L			8.5				< 0.27	< 5.4	< 0.27	< 0.54	< 2.7	< 0.27	< 0.27	< 5.4	< 0.27	< 0.27	< 0.27	< 0.27	< 2.7
8260B	Bromomethane	74-83-9	UG/L			8.7				< 0.72	< 14	< 0.72	< 1.4	< 7.2	< 0.72	< 0.72	< 14	< 0.72	< 0.72	< 0.72	< 0.72	< 7.2
8260B	Carbon disulfide	75-15-0	UG/L			1000				< 0.38	< 7.7	< 0.38	< 0.77	< 3.8	< 0.38	< 0.38	< 7.7	< 0.38	< 0.38	< 0.38	< 0.38	< 3.8
8260B	Carbon tetrachloride	56-23-5	UG/L	5		0.17	D019	500		< 0.41	< 8.1	< 0.41	< 0.81	< 4.1	< 0.41	< 0.41	< 8.1	< 0.41	< 0.41	< 0.41	< 0.41	< 4.1
8260B	Chlorobenzene	108-90-7	UG/L	100		91	D021	100000		< 0.33	1100	< 0.33	12	13	< 0.33	< 0.33	880	< 0.33	< 0.33	100	< 0.33	< 3.3
8260B	Chloroethane	75-00-3	UG/L			3.9				< 0.45	18 J	< 0.45	< 0.9	< 4.5	< 0.45	< 0.45	15 J	< 0.45	< 0.45	< 0.45	< 0.45	< 4.5
8260B	Chloroform	67-66-3	UG/L			0.17	D022	6000		< 0.35	< 7	1.0 UB	< 0.7	< 3.5	< 0.35	< 0.35	< 7	< 0.35	< 0.35	< 0.35	< 0.35	< 3.5
8260B	Chloromethane	74-87-3	UG/L			2.1				< 0.48	< 9.6	< 0.48	< 0.96	< 4.8	< 0.48	< 0.48	< 9.6	< 0.48	< 0.48	0.50 J	< 0.48	< 4.8
8260B	cis-1,2-Dichloroethene	156-59-2	UG/L	70		61				< 0.37	< 7.3	< 0.37	< 0.73	< 3.7	< 0.37	< 0.37	< 7.3	< 0.37	< 0.37	< 0.37	< 0.37	< 3.7
8260B	cis-1,3-Dichloropropene	10061-01-5	UG/L			0.4				< 0.31	< 6.1	< 0.31	< 0.61	< 3.1	< 0.31	< 0.31	< 6.1	< 0.31	< 0.31	< 0.31	< 0.31	< 3.1
8260B	Dibromochloromethane	124-48-1	UG/L			0.13				< 0.28	< 5.6	< 0.28	< 0.56	< 2.8	< 0.28	< 0.28	< 5.6	< 0.28	< 0.28	< 0.28	< 0.28	< 2.8
8260B	Dibromomethane	74-95-3	UG/L			61				< 0.41	< 8.1	< 0.41	< 0.81	< 4.1	< 0.41	< 0.41	< 8.1	< 0.41	< 0.41	< 0.41	< 0.41	< 4.1
8260B	Ethylbenzene	100-41-4	UG/L	700		1300				< 0.42	180	< 0.42	< 0.83	< 4.2	< 0.42	< 0.42	150	< 0.42	< 0.42	< 0.42	< 0.42	< 4.2
8260B	Methylene chloride	75-09-2	UG/L	5		4.3				< 0.42	22	< 0.42	< 0.84	12	< 0.42	< 0.42	19 J	< 0.42	< 0.42	< 0.42	< 0.42	< 4.2
8260B	m-Xylene & p-Xylene	136777-61-2	UG/L							< 0.83	240	< 0.83	< 1.7	< 8.3	< 0.83	< 0.83	200	< 0.83	< 0.83	< 0.83	< 0.83	< 8.3
8260B	o-Xylene	95-47-6	UG/L			1400				< 0.39	240	< 0.39	< 0.77	< 3.9	< 0.39	< 0.39	190	< 0.39	< 0.39	< 0.39	< 0.39	< 3.9
8260B	Styrene	100-42-5	UG/L	100		1600				< 0.31	8.4 J	< 0.31	< 0.62	< 3.1	< 0.31	< 0.31	6.4 J	< 0.31	< 0.31	< 0.31	< 0.31	< 3.1
8260B	Tetrachloroethene	127-18-4	UG/L	5		0.11	D039	700		< 0.4	< 8	< 0.4	< 0.8	< 4	< 0.4	< 0.4	< 8	< 0.4	< 0.4	< 0.4	< 0.4	< 4
8260B	Toluene	108-88-3	UG/L	1000		2300				< 0.39	950	< 0.39	< 0.78	< 3.9	< 0.39	< 0.39	950	< 0.39	< 0.39	< 0.39	< 0.39	< 3.9
8260B	trans-1,2-Dichloroethene	156-60-5	UG/L	100		110				< 0.37	< 7.4	< 0.37	< 0.74	< 3.7	< 0.37	< 0.37	< 7.4	< 0.37	< 0.37	< 0.37	< 0.37	< 3.7
8260B	trans-1,3-Dichloropropene	10061-02-6	UG/L			0.4				< 0.21	< 4.2	< 0.21	< 0.42	< 2.1	< 0.21	< 0.21	< 4.2	< 0.21	< 0.21	< 0.21	< 0.21	< 2.1
8260B	Trichloroethene	79-01-6	UG/L	5		0.028	D040	500		< 0.45	< 9	< 0.45	< 0.9	< 4.5	< 0.45	< 0.45	< 9	< 0.45	< 0.45	< 0.45	< 0.45	< 4.5
8260B	Trichlorofluoromethane	75-69-4	UG/L			1300				< 0.47	< 9.5	< 0.47	< 0.95	< 4.7	< 0.47	< 0.47	< 9.5	< 0.47	< 0.47	< 0.47	< 0.47	< 4.7
8260B	Vinyl acetate	108-05-4	UG/L			410				< 0.29	< 5.9	< 0.29	< 0.59	< 2.9	< 0.29	< 0.29	< 5.9	< 0.29	< 0.29	< 0.29	< 0.29	< 2.9
8260B	Vinyl chloride	75-01-4	UG/L	2		0.015	D043	200		< 0.4	< 8	< 0.4	< 0.8	< 4	< 0.4	< 0.4	< 8	< 0.4	< 0.4	< 0.4	< 0.4	< 4
8260B	Xylenes (total)	1330-20-7	UG/L	10000		200				< 1.2	480	< 1.2	< 2.4	< 12	< 1.2	< 1.2	390	< 1.2	< 1.2	< 1.2	< 1.2	< 12
Semivolatile Organic Compounds (SVOCs)																						
8270C	1,2,4-Trichlorobenzene	120-82-1	UG/L	70		8.2				< 0.81	< 8.3	< 0.82	< 0.82	< 0.81	< 0.81	< 8.2	< 4.1	< 0.82	< 0.81	< 0.84	< 0.81	< 0.82
8270C	1,2-Dichlorobenzene	95-50-1	UG/L	600		49				< 0.94	480	< 0.95	1.4 J	0.94 J	< 0.93	570	530	< 0.95	< 0.94	50	< 0.93	< 0.95
8270C	1,3-Dichlorobenzene	541-73-1	UG/L			15				< 0.96	< 9.8	3.0 J	< 0.97	< 0.96	< 0.95	< 9.7	< 4.9	< 0.97	< 0.96	< 0.99	< 0.95	< 0.97
8270C	1,4-Dichlorobenzene	106-46-7	UG/L	75		0.47	D027	7500		< 0.78	11 J	< 0.79	< 0.79	< 0.78	< 0.78	15 J	14 J	< 0.79	< 0.78	0.87 J	< 0.78	< 0.79
8270C	2,4,5-Trichlorophenol	95-95-4	UG/L			3700	D041	400000		< 0.97	< 9.9	< 0.98	< 0.98	< 0.97	< 0.96	< 9.8	< 4.9	< 0.98	< 0.97	< 1	< 0.96	< 0.98
8270C	2,4,6-Trichlorophenol	88-06-2	UG/L			6.1	D042	2000		< 1.1	< 11	< 1.1	< 1.1	< 1.1	< 1.1	< 11	< 5.4	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	2,4-Dichlorophenol	120-83-2	UG/L			110				< 1	42 J	< 1	< 1	< 1	< 0.99	49 J	50	< 1	< 1	< 1	< 0.99	< 1
8270C	2,4-Dimethylphenol	105-67-9	UG/L			730				< 1.8	25 J	< 1.9	< 1.9	< 1.8	< 1.8	29 J	28 J	< 1.9	< 1.8	< 1.9	< 1.8	< 1.9
8270C	2,4-Dinitrophenol	51-28-5	UG/L			73				< 3.6	< 37	< 3.7	< 3.7	< 3.6	< 3.6	< 37	< 18	< 3.7	< 3.6	< 3.7	< 3.6	< 3.7
8270C	2,4-Dinitrotoluene	121-14-2	UG/L			73	D030	130		< 2.8	< 29	< 2.8	< 2.8	< 2.8	< 2.8	< 28	< 14	< 2.8	< 2.8	< 2.9	< 2.8	< 2.8
8270C	2,6-Dinitrotoluene	606-20-2	UG/L			37				< 1	< 10	< 1	< 1	< 1	< 0.98	< 10	< 5	< 1	< 1	< 1	< 0.98	< 1
8270C	2-Chloronaphthalene	91-58-7	UG/L			490				< 1.4	< 14	< 1.4	< 1.4	< 1.4	< 1.4	< 14	< 7.2	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4
8270C	2-Chlorophenol	95-57-8	UG/L			30				< 1.4	< 15	< 1.5	< 1.5	< 1.4	< 1.4	< 15	< 7.3	< 1.5	< 1.4	< 1.5	< 1.4	< 1.5
8270C	2-Methylnaphthalene	91-57-6	UG/L							< 0.94	< 9.6	< 0.95	< 0.95	< 0.94	< 0.93	< 9.5	< 4.7	< 0.95	< 0.94	< 0.97	< 0.93	< 0.95

Table 9
Summer 2008 Groundwater Sampling Analytical Data
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Primary Drinking Water Std (ug/L)	Secondary Drinking Water Std (ug/L)	TapWater MSSL (ug/l)	Haz waste Code	TCLP Reg Number(ug/l)	Sample ID Date Sampled	2MW-7 7/11/2008	4MW-1 7/13/2008	4MW-3 7/12/2008	4MW-4 7/8/2008	9MW-1 7/13/2008	DUP-1 7/10/2008	DUP-2 7/13/2008	DUP-3 7/13/2008	DUP-4 7/25/2008	EMW-1 7/13/2008	EMW-4 7/13/2008	EMW-6 7/9/2008	EMW-6A 7/9/2008
8270C	2-Methylphenol	95-48-7	UG/L			1800	D023	200000		< 1.8	680	< 1.8	< 1.8	43	< 1.8	770	710	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
8270C	2-Nitroaniline	88-74-4	UG/L			110				< 1.2	< 12	< 1.2	< 1.2	< 1.2	< 1.1	< 12	< 5.8	< 1.2	< 1.2	< 1.2	< 1.1	< 1.2
8270C	2-Nitrophenol	88-75-5	UG/L							< 1	< 10	< 1	< 1	< 1	< 1	< 10	< 5.2	< 1	< 1	< 1.1	< 1	< 1
8270C	3,3'-Dichlorobenzidine	91-94-1	UG/L			0.15				< 1.7 J	< 17	< 1.7	< 1.7 J	< 1.7	< 1.6 J	< 17	< 8.4	< 1.7 J	< 1.7	< 1.7	< 1.6 J	< 1.7 J
8270C	3,4-Dichloroaniline	95-76-1	UG/L							< 1	5900	< 1	4.4 J	13	< 0.98	6400	5700	< 1	< 1	79	< 0.98	180
8270C	3-Methylphenol & 4-Methylphenol	65794-96-9	UG/L			180				< 2.5	430	< 2.5	< 2.5	< 2.5	< 2.5	480	430	< 2.5	< 2.5	< 2.6	< 2.5	< 2.5
8270C	3-Nitroaniline	99-09-2	UG/L							< 1.2	< 12	< 1.2	< 1.2	< 1.2	< 1.2	< 12	< 6	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
8270C	4,6-Dinitro-2-methylphenol	534-52-1	UG/L							< 3.5	< 35 J	< 3.5 J	< 3.5	< 3.5 J	< 3.4	< 35 J	< 17 J	< 3.5	< 3.5 J	< 3.6 J	< 3.4	< 3.5
8270C	4-Bromophenyl phenyl ether	101-55-3	UG/L							< 0.91	< 9.2	< 0.91	< 0.91	< 0.91	< 0.9	< 9.1	< 4.6	< 0.91	< 0.91	< 0.93	< 0.9	< 0.91
8270C	4-Chloro-3-methylphenol	59-50-7	UG/L							< 1	< 11	< 1.1	< 1.1	< 1	< 1	< 11	< 5.3	< 1.1	< 1	< 1.1	< 1	< 1.1
8270C	4-Chloroaniline	106-47-8	UG/L			150				< 1.6	15000	< 1.6	< 1.6	2100	< 1.6	17000	16000	< 1.6 J	< 1.6	350	< 1.6	490
8270C	4-Chlorophenyl phenyl ether	7005-72-3	UG/L							< 1.4	< 14	< 1.4	< 1.4	< 1.4	< 1.4	< 14	< 7	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
8270C	4-Nitroaniline	100-01-6	UG/L							< 1.1	< 11	< 1.1	< 1.1	< 1.1	< 1	< 11	< 5.3	< 1.1	< 1.1	< 1.1	< 1	< 1.1
8270C	4-Nitrophenol	100-02-7	UG/L			290				< 4	< 41	< 4	< 4	< 4	< 3.9	< 40	< 20	< 4	< 4	< 4.1	< 3.9	< 4
8270C	Acenaphthene	83-32-9	UG/L			370				< 1.1	< 11	< 1.1	< 1.1	< 1.1	< 1.1	< 11	< 5.4	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Acenaphthylene	208-96-8	UG/L							< 0.88	< 9	< 0.89	< 0.89	< 0.88	< 0.87	< 8.9	< 4.4	< 0.89	< 0.88	< 0.9	< 0.87	< 0.89
8270C	Aniline	62-53-3	UG/L			12				< 2 J	< 20	< 2	< 2 J	27	< 2 J	< 20	87	< 2 J	< 2	< 2	< 2 J	< 2 J
8270C	Anthracene	120-12-7	UG/L			1800				< 1.1	< 11	< 1.1	< 1.1	< 1.1	< 1.1	< 11	< 5.5	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Benzo(a)anthracene	56-55-3	UG/L			0.03				< 1.1	< 11	< 1.1	< 1.1	< 1.1	< 1.1	< 11	< 5.5	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Benzo(a)pyrene	50-32-8	UG/L	0.2		0.003				< 1.1	< 11	< 1.1	< 1.1	< 1.1	< 1.1	< 11	< 5.4	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Benzo(b)fluoranthene	205-99-2	UG/L			0.03				< 0.76	< 7.8	< 0.77	< 0.77	< 0.76	< 0.76	< 7.7	< 3.9	< 0.77	< 0.76	< 0.79	< 0.76	< 0.77
8270C	Benzo(ghi)perylene	191-24-2	UG/L							< 0.74	< 7.5	< 0.75	< 0.75	< 0.74	< 0.73	< 7.5	< 3.7	< 0.75	< 0.74	< 0.76	< 0.73	< 0.75
8270C	Benzo(k)fluoranthene	207-08-9	UG/L			0.3				< 1.2	< 12	< 1.2	< 1.2	< 1.2	< 1.2	< 12	< 6	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
8270C	Benzoic acid	65-85-0	UG/L			150000				< 13	< 130	< 13	< 13	< 13	< 13	< 130	< 66	< 13	< 13	< 13	< 13	< 13
8270C	Benzyl alcohol	100-51-6	UG/L			11000				< 1.6	< 16	< 1.6	< 1.6	< 1.6	< 1.6	< 16	< 8	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6
8270C	bis(2-Chloroethoxy)methane	111-91-1	UG/L							< 1.1	< 11	< 1.1	< 1.1	< 1.1	< 1.1	< 11	< 5.5	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	bis(2-Chloroethyl) ether	111-44-4	UG/L			0.0098				< 1.2	< 12	< 1.2	29	< 1.2	< 1.1	< 12	< 5.9	< 1.2	< 1.2	< 1.2	< 1.1	< 1.2
8270C	bis(2-Chloroisopropyl) ether	108-60-1	UG/L			0.27				< 1.2	< 12	< 1.2	< 1.2	< 1.2	< 1.2	< 12	< 6	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
8270C	bis(2-Ethylhexyl) phthalate	117-81-7	UG/L	6		4.8				2.8 J	< 27	< 2.7	4.8 J	< 2.7	< 2.6	< 27	< 13	< 2.7	< 2.7	< 2.7	< 2.6	< 2.7
8270C	Butyl benzyl phthalate	85-68-7	UG/L			7300				< 0.96	< 9.8	< 0.97	< 0.97	< 0.96	< 0.95	< 9.7	< 4.8	< 0.97	< 0.96	< 0.99	< 0.95	< 0.97
8270C	Chrysene	218-01-9	UG/L			3				< 1	< 11	< 1.1	< 1.1	< 1	< 1	< 11	< 5.3	< 1.1	< 1	< 1.1	< 1	< 1.1
8270C	Dibenz(a,h)anthracene	53-70-3	UG/L			0.003				< 0.98	< 10	< 0.99	< 0.99	< 0.98	< 0.97	< 9.9	< 4.9	< 0.99	< 0.98	< 1	< 0.97	< 0.99
8270C	Dibenzofuran	132-64-9	UG/L			12				< 1	< 10	< 1	< 1	< 1	< 1	< 10	< 5.2	< 1	< 1	< 1.1	< 1	< 1
8270C	Diethyl phthalate	84-66-2	UG/L			29000				< 1.4	< 15	< 1.4	< 1.4	< 1.4	< 1.4	< 14	< 7.2	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4
8270C	Dimethyl phthalate	131-11-3	UG/L			370000				< 1.2	< 13	< 1.2	< 1.2	< 1.2	< 1.2	< 12	< 6.2	< 1.2	< 1.2	< 1.3	< 1.2	< 1.2
8270C	Di-n-butyl phthalate	84-74-2	UG/L			3700				< 1.1	< 11	< 1.1	< 1.1	< 1.1	< 1.1	< 11	< 5.5	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Di-n-octyl phthalate	117-84-0	UG/L							< 1.1	< 11	< 1.1	< 1.1	< 1.1	< 1.1	< 11	< 5.4	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Dinoseb	88-85-7	UG/L	7		37				< 0.4	< 4.1	< 0.4	< 0.4	< 0.4	< 0.4	< 4	< 2	< 0.4	< 0.4	< 0.41	< 0.4	< 0.4
8270C	Fluoranthene	206-44-0	UG/L			1500				< 0.89	< 9.1	< 0.9	< 0.9	< 0.89	< 0.88	< 9	< 4.5	< 0.9	< 0.89	< 0.92	< 0.88	< 0.9
8270C	Fluorene	86-73-7	UG/L			240				< 0.98	< 10	< 0.99	< 0.99	< 0.98	< 0.97	< 9.9	< 5	< 0.99	< 0.98	< 1	< 0.97	< 0.99
8270C	Hexachlorobenzene	118-74-1	UG/L	1		0.042	D032	130		< 1.4	< 15	< 1.4	< 1.4	< 1.4	< 1.4	< 14	< 7.2	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4
8270C	Hexachlorobutadiene	87-68-3	UG/L			0.86	D033	500		< 1.2	< 13	< 1.2	< 1.2	< 1.2	< 1.2	< 12	< 6.2	< 1.2	< 1.2	< 1.3	< 1.2	< 1.2
8270C	Hexachlorocyclopentadiene	77-47-4	UG/L	50		220				< 3.3	< 34	< 3.3	< 3.3	< 3.3	< 3.3	< 33	< 17	< 3.3	< 3.3	< 3.4	< 3.3	< 3.3
8270C	Hexachloroethane	67-72-1	UG/L			4.8	D034	3000		< 0.91	< 9.3	< 0.92	< 0.92	< 0.91	< 0.9	< 9.2	< 4.6	< 0.92	< 0.91	< 0.94	< 0.9	< 0.92
8270C	Indeno(1,2,3-cd)pyrene	193-39-5	UG/L			0.03				< 1.1	< 11	< 1.1	< 1.1	< 1.1	< 1.1	< 11	< 5.6	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Isophorone	78-59-1	UG/L			71				< 1.1	220	< 1.1	< 1.1	10	< 1.1	250	37 J	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Naphthalene	91-20-3	UG/L			6.2				< 0.85	< 8.7	< 0.86	< 0.86	< 0.85	< 0.84	< 8.6	< 4.3	< 0.86	< 0.85	< 0.88	< 0.84	< 0.86
8270C	Nitrobenzene	98-95-3	UG/L			3.4	D036	2000		< 1.1	< 11	< 1.1	< 1.1	< 1.1	< 1.1	< 11	< 5.5	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	N-Nitrosodi-n-propylamine	621-64-7	UG/L			0.0096				< 1	< 10	< 1	< 1	< 1	< 1	< 10	< 5.1	< 1	< 1	< 1	< 1	< 1
8270C	N-Nitrosodiphenylamine	86-30-6	UG/L			14				< 0.91	< 9.3	< 0.92	< 0.92	< 0.91	< 0.9	< 9.2	< 4.6	< 0.92	< 0.91	< 0.94	< 0.9	< 0.92
8270C	Pentachlorophenol	87-86-5	UG/L	1		0.56	D037	100000		< 5.3	< 54	< 5.3	< 5.3	< 5.3	< 5.2	< 53	< 27	< 5.3	< 5.3	< 5.4	< 5.2	< 5.3
8270C	Phenanthrene	85-01-8	UG/L							< 0.97	< 9.9	< 0.98	< 0.98	< 0.97	< 0.96	< 9.8	< 4.9	< 0.98	< 0.97	< 1	< 0.96	< 0.98
8270C	Phenol	108-95-2	UG/L			11000				< 2.1	95 J	< 2.1	< 2.1	< 2.1	< 2	97 J	41 J	< 2.1	< 2.1	< 2.1	< 2	< 2.1
8270C	Propanil	709-98-8	UG/L			180				< 0.76	230	< 0.77	< 0.77	< 0.76	< 0.75	260	220	< 0.77	< 0.76	3.3 J	< 0.75	3.5 J
8270C	Pyrene	129-00-0	UG/L			180				< 0.89	< 9.1	< 0.9	< 0.9	< 0.89	< 0.88	< 9	< 4.5	< 0.9	< 0.89	< 0.92	< 0.88	< 0.9

Table 9
Summer 2008 Groundwater Sampling Analytical Data
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Primary Drinking Water Std (ug/L)	Secondary Drinking Water Std (ug/L)	TapWater MSSL (ug/l)	Haz waste Code	TCLP Reg Number(ug/l)	Sample ID Date Sampled	EMW6-B 7/8/2008	EMW6-C 7/8/2008	EMW-7 7/12/2008	MW-13 7/12/2008	MW-15 7/13/2008	MW-16 7/11/2008	MW-17 7/12/2008	MW-18 7/11/2008	MW-22MA 7/23/2008	MW-22LA 7/23/2008	MW-23 7/11/2008	MW-25MA 7/23/2008	MW-25LA 7/23/2008
	Metals																					
6020	Aluminum	7429-90-5	UG/L		50	37000				210	2440	162	73.9	< 30.3	57500	63.2	180000	1290	260	54.2	542	7440
6020	Antimony	7440-36-0	UG/L	6		15				0.42 J	0.84 J	1.0 UB	1.0 UB	1.0 UB	0.40 J	1.0 UB	0.59 J	1.0 UB	1.0 UB	< 0.029	1.0 UB	1.0 UB
6020	Arsenic	7440-38-2	UG/L	10		0.045	D004	5000		10.4	94.0	6.0	13.5	14.5	5.8	1.0	80.2	6.7	1.1	1.5	2.3	4.1
6020	Barium	7440-39-3	UG/L	2000		7300	D005	100000		247	275	207	213	245	24.9	172	387	211	422	161	181	184
6020	Beryllium	7440-41-7	UG/L	4		73				< 0.023	0.13 J	0.031 J	0.051 J	< 0.023	6.8	0.030 J	16.5	0.070 J	0.033 J	< 0.023	0.084 J	1.5
6020	Cadmium	7440-43-9	UG/L	5		18	D006	1000		0.17 J	0.33 J	0.081 J	0.047 J	< 0.023	3.8	0.027 J	15.9	0.20 J	< 0.023	< 0.023	0.025 J	0.10 J
6020	Calcium	7440-70-2	UG/L							87000	67500	156000	128000	94200	348000	98900	495000	100000	130000	77800	76600	33300
6020	Chromium	7440-47-3	UG/L	100			D007	5000		0.96 J	4.4	68.5	15.0	1.8	89.8	3.4	217	2.2	0.60 J	1.9	1.0	5.6
6020	Cobalt	7440-48-4	UG/L			730				3.0	8.3	1.7	1.2	0.50 J	99.5	0.57 J	322	2.8	0.37 J	0.62 J	1.6	3.8
6020	Copper	7440-50-8	UG/L	1300	1000	1400				2.3	8.4	3.5	2.2	0.59 J	51.1	0.90 J	498	1.7	0.55 J	0.47 J	0.96 J	2.8
6020	Iron	7439-89-6	UG/L		300	26000				872	13200	3850	6580	7880	12900	8030	231000	13000	19200	3750	1860	10600
6020	Lead	7439-92-1	UG/L	15		15	D008	5000		0.53 J	3.5	2.0	0.85 J	0.17 J	6.5	0.32 J	201	1.5	0.48 J	0.19 J	1.5	20.3
6020	Magnesium	7439-95-4	UG/L							41000	29100	65000	59700	38000	25600	38800	184000	43200	55300	34000	25600	12400
6020	Manganese	7439-96-5	UG/L		50	1700				2380	4840	375	309	640	14600	462	208000	1710	1090	252	489	573
6020	Nickel	7440-02-0	UG/L			730				50.8	31.9	58.8	11.5	9.7	179	9.1	467	5.7	4.3	3.2	4.4	5.5
6020	Potassium	7440-09-7	UG/L							620 J	609 J	2080	2940	2320	2700	4350	21200	2520	3430	1500	4000	4020
6020	Selenium	7782-49-2	UG/L	50		180	D010	1000		1.2	0.25 J	< 0.11	< 0.11	< 0.11	10.1	< 0.11	5.5 J	1.0 UB	1.0 UB	< 0.11	3.7	1.0 UB
6020	Silver	7440-22-4	UG/L		100	180	D011	5000		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	0.98 J	< 0.04	< 0.04	< 0.04	< 0.04	0.044 J
6020	Sodium	7440-23-5	UG/L							169000	158000	61500	41100	180000	2140000	47000	959000	21400	247000	20300	19600 J	145000
6020	Thallium	7440-28-0	UG/L	2		2.6				0.060 J	0.11 J	0.022 J	< 0.019	< 0.019	1.3	< 0.019	4.1	0.023 J	< 0.019	< 0.019	< 0.019	0.056 J
6020	Vanadium	7440-62-2	UG/L			180				1.2	10.1	0.92 J	1.6	0.78 J	3.6	0.98 J	486	2.7	0.63 J	0.38 J	1.3	6.5
6020	Zinc	7440-66-6	UG/L		5000	11000				13.2	29.9	23.0	11.9	13.0	408	9.8 J	1170	17.7	20.9	9.5 J	12.2	38.9
	Organochlorine Pesticides																					
8081A	4,4'-DDD	72-54-8	UG/L			0.28				0.11 J	< 0.0077	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.077 J	< 0.0077 J	< 0.77 J	< 0.0077	< 0.0077 J	< 0.0077 J	< 0.0077	< 0.0077 J
8081A	4,4'-DDE	72-55-9	UG/L			0.2				0.026 J	< 0.0075	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.075 J	< 0.0075 J	< 0.75 J	< 0.0075	< 0.0075 J	< 0.0075 J	< 0.0075	< 0.0075 J
8081A	4,4'-DDT	50-29-3	UG/L			0.2				< 0.015	< 0.015	< 0.015 J	< 0.015 J	< 0.015 J	< 0.15 J	< 0.015 J	< 1.5 J	< 0.015	< 0.015 J	< 0.015 J	< 0.015	< 0.015 J
8081A	Aldrin	309-00-2	UG/L			0.004				0.11 J	< 0.0059	< 0.0059 J	< 0.0059 J	< 0.0059 J	< 0.059 J	< 0.0059 J	< 0.59 J	< 0.0059	< 0.0059 J	< 0.0059 J	< 0.0059	< 0.0059 J
8081A	alpha-BHC	319-84-6	UG/L			0.011				0.10 J	0.099	< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.053 J	< 0.0053 J	< 0.53 J	0.0076 J	< 0.0053 J	< 0.0053 J	< 0.0053	< 0.0053 J
8081A	alpha-Chlordane	5103-71-9	UG/L							< 0.0053	< 0.0053	< 0.0053 J	0.0077 J	< 0.0053 J	< 0.053 J	< 0.0053 J	< 0.53 J	0.0072 J	< 0.0053 J	< 0.0053 J	< 0.0053	< 0.0053 J
8081A	beta-BHC	319-85-7	UG/L			0.037				< 0.0087	< 0.0087	< 0.0087 J	< 0.0087 J	< 0.0087 J	< 0.087 J	< 0.0087 J	< 0.87 J	< 0.0087	< 0.0087 J	< 0.0087 J	< 0.0087	< 0.0087 J
8081A	Chlordane (technical)	57-74-9	UG/L	2		0.19	D020	30		< 0.14	< 0.14	< 0.14 J	< 0.14 J	< 0.14 J	< 1.4 J	< 0.14 J	< 14 J	< 0.14	< 0.14 J	< 0.14 J	< 0.14	< 0.14 J
8081A	delta-BHC	319-86-8	UG/L							< 0.0058	0.050 UB	< 0.0058 J	0.0089 J	< 0.0058 J	1.3 J	< 0.0058 J	< 0.58 J	< 0.0058	< 0.0058 J	< 0.0058 J	< 0.0058	< 0.0058 J
8081A	Dieldrin	60-57-1	UG/L			0.0042				< 0.0063	< 0.0063	< 0.0063 J	< 0.0063 J	< 0.0063 J	0.13 J	< 0.0063 J	< 0.63 J	< 0.0063	< 0.0063 J	< 0.0063 J	< 0.0063	< 0.0063 J
8081A	Endosulfan I	959-98-8	UG/L							< 0.0058	< 0.0058	< 0.0058 J	< 0.0058 J	< 0.0058 J	< 0.058 J	< 0.0058 J	< 0.58 J	< 0.0058	< 0.0058 J	< 0.0058 J	< 0.0058	< 0.0058 J
8081A	Endosulfan II	33213-65-9	UG/L							< 0.007	< 0.007	< 0.007 J	< 0.007 J	< 0.007 J	0.59 J	< 0.007 J	< 0.7 J	< 0.007	< 0.007 J	< 0.007 J	< 0.007	< 0.007 J
8081A	Endosulfan sulfate	1031-07-8	UG/L							< 0.0057	< 0.0057	< 0.0057 J	< 0.0057 J	< 0.0057 J	< 0.057 J	< 0.0057 J	< 0.57 J	< 0.0057	< 0.0057 J	< 0.0057 J	< 0.0057	< 0.0057 J
8081A	Endrin	72-20-8	UG/L	2		11	D012	20		0.062 J	0.014 J	< 0.0079 J	0.011 J	< 0.0079 J	0.12 J	< 0.0079 J	< 0.79 J	< 0.0079	< 0.0079 J	< 0.0079 J	< 0.0079	< 0.0079 J
8081A	Endrin aldehyde	7421-93-4	UG/L							< 0.0088	< 0.0088	< 0.0088 J	< 0.0088 J	< 0.0088 J	< 0.088 J	< 0.0088 J	< 0.88 J	< 0.0088	< 0.0088 J	< 0.0088 J	< 0.0088	< 0.0088 J
8081A	Endrin ketone	53494-70-5	UG/L							< 0.007	< 0.007	< 0.007 J	< 0.007 J	< 0.007 J	< 0.07 J	< 0.007 J	< 0.7 J	0.030 J	< 0.007 J	< 0.007 J	< 0.007	< 0.007 J
8081A	gamma-BHC (Lindane)	58-89-9	UG/L	0.2		0.052	D013	400		0.14	0.040 J	< 0.0069 J	< 0.0069 J	< 0.0069 J	1.3 J	< 0.0069 J	< 0.69 J	0.024 J	0.0086 J	< 0.0069 J	< 0.0069	< 0.0069 J
8081A	gamma-Chlordane	5103-74-2	UG/L							< 0.0091	< 0.0091	< 0.0091 J	< 0.0091 J	< 0.0091 J	0.96 J	< 0.0091 J	< 0.91 J	< 0.0091	< 0.0091 J	< 0.0091 J	< 0.0091	< 0.0091 J
8081A	Heptachlor	76-44-8	UG/L	0.4		0.015	D031	8		< 0.0077	< 0.0077	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.077 J	< 0.0077 J	< 0.77 J	< 0.0077	< 0.0077 J	< 0.0077 J	< 0.0077	< 0.0077 J
8081A	Heptachlor epoxide	1024-57-3	UG/L	0.2		0.0074				< 0.0075	< 0.0075	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.075 J	< 0.0075 J	< 0.75 J	< 0.0075	< 0.0075 J	< 0.0075 J	< 0.0075	< 0.0075 J
8081A	Methoxychlor	72-43-5	UG/L	40		180	D014	10000		< 0.013	< 0.013	< 0.013 J	< 0.013 J	< 0.013 J	< 0.13 J	< 0.013 J	< 1.3 J	< 0.013	< 0.013 J	< 0.013 J	< 0.013	< 0.013 J
8081A	Toxaphene	8001-35-2	UG/L	3		0.061	D015	500		< 0.37	< 0.37	< 0.37 J	< 0.37 J	< 0.37 J	< 3.7 J	< 0.37 J	< 37 J	< 0.37	< 0.37 J	< 0.37 J	< 0.37	< 0.37 J
	Herbicides																					
8151A	Dinoseb	88-85-7	UG/L	7		37				0.87 J	0.61 J	0.73	0.32 J	12	340	0.62 J	210	1.0 J	< 0.24	< 0.24	< 0.24	< 0.24
Volatile Organic Compounds (VOCs)																						
8260B	1,1,1-Trichloroethane	71-55-6	UG/L	200		840				< 0.36	< 0.36	< 7.2	< 3.6	< 0.36	< 36	< 0.36	< 720	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36
8260B	1,1,2,2-Tetrachloroethane	79-34-5	UG/L			0.055				< 0.31	< 0.31	< 6.2	< 3.1	< 0.31	< 31	< 0.31	< 620	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31
8260B	1,1,2-Trichloroethane	79-00-5	UG/L	5		0.2				< 0.35	< 0.35	< 7	< 3.5	< 0.35	< 35	< 0.35	< 700	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35
8260B	1,1-Dichloroethane	75-34-3	UG/L			1200				< 0.37	< 0.37	< 7.5	< 3.7	< 0.37	< 37	< 0.37	< 750	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37
8260B	1,1-Dichloroethene	75-35-4	UG/L	7		340	D029	700		< 0.43	< 0.43	< 8.5	< 4.3	< 0.43	< 43	< 0.43	< 850	0.87 J	< 0.43	< 0.43	< 0.43	< 0.43
8260B	1,2-Dibromoethane (EDB)	106-93-4	UG/L	0.05		0.0056				< 0.3	< 0.3	< 6	< 3	< 0.3	< 30	< 0.3	< 600	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3

Table 9
Summer 2008 Groundwater Sampling Analytical Data
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Primary Drinking Water Std (ug/L)	Secondary Drinking Water Std (ug/L)	TapWater MSSL (ug/l)	Haz waste Code	TCLP Reg Number(ug/l)	Sample ID Date Sampled	EMW6-B 7/8/2008	EMW6-C 7/8/2008	EMW-7 7/12/2008	MW-13 7/12/2008	MW-15 7/13/2008	MW-16 7/11/2008	MW-17 7/12/2008	MW-18 7/11/2008	MW-22MA 7/23/2008	MW-22LA 7/23/2008	MW-23 7/11/2008	MW-25MA 7/23/2008	MW-25LA 7/23/2008
8260B	1,2-Dichlorobenzene	95-50-1	UG/L	600		49				81	12	< 8.7	6.1 J	0.51 J	1700	< 0.43	< 870	2.1	0.83 J	< 0.43	< 0.43	< 0.43
8260B	1,2-Dichloroethane	107-06-2	UG/L	5		0.12	D028	500		11	2.0	1600	1000	0.46 J	140	27	84000	91	50	< 0.39	< 0.39	< 0.39
8260B	1,2-Dichloroethene (total)	540-59-0	UG/L							0.74 J	< 0.73	< 15	< 7.3	< 0.73	< 73	< 0.73	< 1500	< 0.73	< 0.73	< 0.73	< 0.73	< 0.73
8260B	1,2-Dichloropropane	78-87-5	UG/L	5		0.17				< 0.37	< 0.37	< 7.5	< 3.7	< 0.37	< 37	< 0.37	< 750	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37
8260B	1,3-Dichlorobenzene	541-73-1	UG/L			15				< 0.39	< 0.39	< 7.7	< 3.9	< 0.39	< 39	< 0.39	< 770	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39
8260B	1,4-Dichlorobenzene	106-46-7	UG/L	75		0.47	D027	7500		1.8	0.88 J	< 7.5	< 3.8	0.76 J	< 38	< 0.38	< 750	< 0.38	0.41 J	< 0.38	< 0.38	< 0.38
8260B	2-Butanone (MEK)	78-93-3	UG/L			7100	D035	200000		< 0.84	< 0.84	< 17	< 8.4	< 0.84	9200	1.0 J	< 1700	2.0 J	2.1 J	< 0.84	< 0.84	13
8260B	2-Hexanone	591-78-6	UG/L							< 0.27	< 0.27	< 5.3	< 2.7	< 0.27	< 27	< 0.27	< 530	2.3 J	2.1 J	< 0.27	2.9 J	31
8260B	4-Methyl-2-pentanone (MIBK)	108-10-1	UG/L			2000				< 0.42	< 0.42	< 8.3	< 4.2	0.64 J	< 42	< 0.42	< 830	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42
8260B	Acetone	67-64-1	UG/L			5500				1.5 J	2.8 J	< 16	< 8.2	6.8 UB	5400	5.0 UB	< 1600	5.0 UB	9.9 UB	5.0 UB	5.0 UB	17
8260B	Benzene	71-43-2	UG/L	5		0.35	D018	500		0.83 J	0.81 J	< 7.8	< 3.9	21	< 39	< 0.39	< 780	< 0.39	16	< 0.39	< 0.39	< 0.39
8260B	Bromobenzene	108-86-1	UG/L			23				< 0.39	< 0.39	< 7.9	< 3.9	< 0.39	< 39	< 0.39	< 790	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39
8260B	Bromochloromethane	74-97-5	UG/L							< 0.37	< 0.37	< 7.4	< 3.7	< 0.37	< 37	< 0.37	< 740	< 0.37	< 0.37	< 0.37	< 0.37	1.1
8260B	Bromodichloromethane	75-27-4	UG/L			0.18				< 0.37	< 0.37	< 7.4	< 3.7	< 0.37	< 37	< 0.37	< 740	< 0.37	< 0.37	0.43 J	< 0.37	< 0.37
8260B	Bromoform	75-25-2	UG/L			8.5				< 0.27	< 0.27	< 5.4	< 2.7	< 0.27	< 27	< 0.27	< 540	< 0.27	< 0.27	0.52 J	< 0.27	< 0.27
8260B	Bromomethane	74-83-9	UG/L			8.7				< 0.72	< 0.72	< 14	< 7.2	< 0.72	< 72	< 0.72	< 1400	< 0.72	< 0.72	< 0.72	< 0.72	< 0.72
8260B	Carbon disulfide	75-15-0	UG/L			1000				< 0.38	< 0.38	< 7.7	< 3.8	< 0.38	< 38	0.73 J	< 770	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38
8260B	Carbon tetrachloride	56-23-5	UG/L	5		0.17	D019	500		< 0.41	< 0.41	< 8.1	< 4.1	< 0.41	< 41	< 0.41	< 810	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41
8260B	Chlorobenzene	108-90-7	UG/L	100		91	D021	100000		23	14	< 6.7	< 3.3	93	< 33	< 0.33	< 670	0.48 J	52	< 0.33	< 0.33	< 0.33
8260B	Chloroethane	75-00-3	UG/L			3.9				< 0.45	< 0.45	< 9	< 4.5	< 0.45	< 45	< 0.45	< 900	< 0.45	1.2 J	< 0.45	< 0.45	< 0.45
8260B	Chloroform	67-66-3	UG/L			0.17	D022	6000		< 0.35	< 0.35	< 7	< 3.5	< 0.35	< 35	< 0.35	< 700	< 0.35	< 0.35	< 0.35	< 0.35	0.96 J
8260B	Chloromethane	74-87-3	UG/L			2.1				< 0.48	< 0.48	< 9.6	< 4.8	1.2 J	< 48	< 0.48	< 960	< 0.48	0.73 J	< 0.48	0.50 J	0.67 J
8260B	cis-1,2-Dichloroethene	156-59-2	UG/L	70		61				0.51 J	< 0.37	< 7.3	< 3.7	< 0.37	< 37	< 0.37	< 730	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37
8260B	cis-1,3-Dichloropropene	10061-01-5	UG/L			0.4				< 0.31	< 0.31	< 6.1	< 3.1	< 0.31	< 31	< 0.31	< 610	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31
8260B	Dibromochloromethane	124-48-1	UG/L			0.13				< 0.28	< 0.28	< 5.6	< 2.8	< 0.28	< 28	< 0.28	< 560	< 0.28	< 0.28	0.67 J	< 0.28	< 0.28
8260B	Dibromomethane	74-95-3	UG/L			61				< 0.41	< 0.41	< 8.1	< 4.1	< 0.41	< 41	< 0.41	< 810	< 0.41	< 0.41	< 0.41	< 0.41	1.3
8260B	Ethylbenzene	100-41-4	UG/L	700		1300				3.6	5.2	< 8.3	< 4.2	2.1	51 J	< 0.42	< 830	< 0.42	0.74 J	< 0.42	< 0.42	< 0.42
8260B	Methylene chloride	75-09-2	UG/L	5		4.3				< 0.42	< 0.42	< 8.4	< 4.2	< 0.42	2000	1.8	6500	< 0.42	< 0.42	< 0.42	< 0.42	1.6
8260B	m-Xylene & p-Xylene	136777-61-2	UG/L							< 0.83	< 0.83	< 17	< 8.3	< 0.83	220	< 0.83	< 1700	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83
8260B	o-Xylene	95-47-6	UG/L			1400				< 0.39	< 0.39	< 7.7	< 3.9	0.42 J	120	< 0.39	< 770	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39
8260B	Styrene	100-42-5	UG/L	100		1600				< 0.31	< 0.31	< 6.2	< 3.1	< 0.31	< 31	< 0.31	< 620	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31
8260B	Tetrachloroethene	127-18-4	UG/L	5		0.11	D039	700		< 0.4	< 0.4	< 8	< 4	< 0.4	< 40	< 0.4	< 800	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
8260B	Toluene	108-88-3	UG/L	1000		2300				< 0.39	< 0.39	< 7.8	< 3.9	2.8 UB	2900	2.1 UB	1200 J	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39
8260B	trans-1,2-Dichloroethene	156-60-5	UG/L	100		110				< 0.37	< 0.37	< 7.4	< 3.7	< 0.37	< 37	< 0.37	< 740	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37
8260B	trans-1,3-Dichloropropene	10061-02-6	UG/L			0.4				< 0.21	< 0.21	< 4.2	< 2.1	< 0.21	< 21	< 0.21	< 420	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21
8260B	Trichloroethene	79-01-6	UG/L	5		0.028	D040	500		< 0.45	< 0.45	< 9	< 4.5	< 0.45	< 45	< 0.45	< 900	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45
8260B	Trichlorofluoromethane	75-69-4	UG/L			1300				< 0.47	< 0.47	< 9.5	< 4.7	< 0.47	< 47	< 0.47	< 950	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47
8260B	Vinyl acetate	108-05-4	UG/L			410				< 0.29	< 0.29	< 5.9	< 2.9	< 0.29	< 29	< 0.29	< 590	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29
8260B	Vinyl chloride	75-01-4	UG/L	2		0.015	D043	200		< 0.4	< 0.4	< 8	6.2 J	< 0.4	< 40	< 0.4	< 800	2.1	< 0.4	< 0.4	< 0.4	< 0.4
8260B	Xylenes (total)	1330-20-7	UG/L	10000		200				< 1.2	< 1.2	< 24	< 12	< 1.2	350	< 1.2	< 2400	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Semivolatile Organic Compounds (SVOCs)																						
8270C	1,2,4-Trichlorobenzene	120-82-1	UG/L	70		8.2				< 0.81	< 0.81	< 0.82	< 0.82	< 0.81	2.4 J	< 0.81	< 0.84	< 0.82	< 0.84	< 0.82	< 0.81	< 0.82
8270C	1,2-Dichlorobenzene	95-50-1	UG/L	600		49				59	11	< 0.95	< 0.95	51	1800 J	< 0.94	300	1.7 J	< 0.97	< 0.95	< 0.94	< 0.95
8270C	1,3-Dichlorobenzene	541-73-1	UG/L			15				< 0.96	< 0.95	< 0.97	< 0.97	< 0.95	< 0.98	< 0.96	< 0.99	< 0.97	< 0.99	< 0.97	< 0.96	< 0.97
8270C	1,4-Dichlorobenzene	106-46-7	UG/L	75		0.47	D027	7500		1.4 J	< 0.78	< 0.79	< 0.79	1.3 J	< 0.8	< 0.78	5.1 J	< 0.79	< 0.81	< 0.79	< 0.78	< 0.79
8270C	2,4,5-Trichlorophenol	95-95-4	UG/L			3700	D041	400000		< 0.97	< 0.96	< 0.98	< 0.98	< 0.96	< 0.99	< 0.97	< 1	< 0.98	< 1	< 0.98	< 0.97	< 0.98
8270C	2,4,6-Trichlorophenol	88-06-2	UG/L			6.1	D042	2000		< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	2,4-Dichlorophenol	120-83-2	UG/L			110				< 1	< 0.99	< 1	< 1	< 0.99	30	< 1	< 1	< 1	< 1	< 1	< 1	< 1
8270C	2,4-Dimethylphenol	105-67-9	UG/L			730				< 1.8	< 1.8	< 1.9	< 1.9	< 1.8	< 1.9	< 1.8	< 1.9	< 1.9	< 1.9	< 1.9	< 1.8	< 1.9
8270C	2,4-Dinitrophenol	51-28-5	UG/L			73				< 3.6	< 3.6	< 3.7	< 3.7	< 3.6	16000	< 3.6	< 3.7	< 3.7	< 3.7	< 3.7	< 3.6	< 3.7
8270C	2,4-Dinitrotoluene	121-14-2	UG/L			73	D030	130		< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.9	< 2.8	< 2.9	< 2.8	< 2.9	< 2.8	< 2.8	< 2.8
8270C	2,6-Dinitrotoluene	606-20-2	UG/L			37				< 1	< 0.98	< 1	< 1	< 0.98	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
8270C	2-Chloronaphthalene	91-58-7	UG/L			490				< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.4	< 1.5	< 1.4	< 1.4	< 1.4
8270C	2-Chlorophenol	95-57-8	UG/L			30				< 1.4	< 1.4	< 1.5	< 1.5	< 1.4	< 1.5	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5	< 1.4	< 1.5
8270C	2-Methylnaphthalene	91-57-6	UG/L							< 0.94	< 0.93	< 0.95	< 0.95	< 0.93	< 0.96	< 0.94	< 0.97	< 0.95	< 0.97	< 0.95	< 0.94	< 0.95

Table 9
Summer 2008 Groundwater Sampling Analytical Data
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Primary Drinking Water Std (ug/L)	Secondary Drinking Water Std (ug/L)	TapWater MSSL (ug/l)	Haz waste Code	TCLP Reg Number(ug/l)	Sample ID Date Sampled	EMW6-B 7/8/2008	EMW6-C 7/8/2008	EMW-7 7/12/2008	MW-13 7/12/2008	MW-15 7/13/2008	MW-16 7/11/2008	MW-17 7/12/2008	MW-18 7/11/2008	MW-22MA 7/23/2008	MW-22LA 7/23/2008	MW-23 7/11/2008	MW-25MA 7/23/2008	MW-25LA 7/23/2008
8270C	2-Methylphenol	95-48-7	UG/L			1800	D023	200000		< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	8.1 J	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
8270C	2-Nitroaniline	88-74-4	UG/L			110				< 1.2	< 1.1	< 1.2	< 1.2	< 1.1	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
8270C	2-Nitrophenol	88-75-5	UG/L							< 1	< 1	< 1	< 1	< 1	120	< 1	< 1.1	< 1	< 1.1	< 1	< 1	< 1
8270C	3,3'-Dichlorobenzidine	91-94-1	UG/L			0.15				< 1.7 J	< 1.6 J	< 1.7	< 1.7	< 1.6	< 1.7 J	< 1.7	< 1.7 J	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7
8270C	3,4-Dichloroaniline	95-76-1	UG/L							56000	23000	< 1	< 1	69	< 1	< 1	< 1	69	< 1	< 1	< 1	< 1
8270C	3-Methylphenol & 4-Methylphenol	65794-96-9	UG/L			180				< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	3.9 J	< 2.5	< 2.6	< 2.5	< 2.6	< 2.5	< 2.5	< 2.5
8270C	3-Nitroaniline	99-09-2	UG/L							< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
8270C	4,6-Dinitro-2-methylphenol	534-52-1	UG/L							< 3.5	< 3.4	< 3.5 J	< 3.5 J	< 3.4 J	< 3.5	< 3.5 J	< 3.6	< 3.5	< 3.6	< 3.5 J	< 3.5	< 3.5
8270C	4-Bromophenyl phenyl ether	101-55-3	UG/L							< 0.91	< 0.9	< 0.91	< 0.91	< 0.9	< 0.92	< 0.91	< 0.93	< 0.91	< 0.93	< 0.91	< 0.91	< 0.91
8270C	4-Chloro-3-methylphenol	59-50-7	UG/L							< 1	< 1	< 1.1	< 1.1	< 1	< 1.1	< 1	< 1.1	< 1.1	< 1.1	< 1.1	< 1	< 1.1
8270C	4-Chloroaniline	106-47-8	UG/L			150				6600	8300	< 1.6	< 1.6	31	< 1.6	< 1.6	2.3 J	< 1.6	7.3 J	< 1.6	< 1.6	< 1.6
8270C	4-Chlorophenyl phenyl ether	7005-72-3	UG/L							< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
8270C	4-Nitroaniline	100-01-6	UG/L							< 1.1	< 1	< 1.1	< 1.1	< 1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	4-Nitrophenol	100-02-7	UG/L			290				< 4	< 3.9	< 4	< 4	< 3.9	3000 J	< 4	< 4.1	< 4	< 4.1	< 4	< 4	< 4
8270C	Acenaphthene	83-32-9	UG/L			370				< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Acenaphthylene	208-96-8	UG/L							< 0.88	< 0.87	< 0.89	< 0.89	< 0.87	< 0.9	< 0.88	< 0.9	< 0.89	< 0.9	< 0.89	< 0.88	< 0.89
8270C	Aniline	62-53-3	UG/L			12				2.0 J	4.1 J	< 2	< 2	< 2	< 2 J	< 2	< 2 J	< 2	< 2	< 2	< 2	< 2
8270C	Anthracene	120-12-7	UG/L			1800				< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Benzo(a)anthracene	56-55-3	UG/L			0.03				< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Benzo(a)pyrene	50-32-8	UG/L	0.2		0.003				< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Benzo(b)fluoranthene	205-99-2	UG/L			0.03				< 0.76	< 0.76	< 0.77	< 0.77	< 0.76	< 0.78	< 0.76	< 0.79	< 0.77	< 0.79	< 0.77	< 0.76	< 0.77
8270C	Benzo(ghi)perylene	191-24-2	UG/L							< 0.74	< 0.73	< 0.75	< 0.75	< 0.73	< 0.75	< 0.74	< 0.76	< 0.75	< 0.76	< 0.75	< 0.74	< 0.75
8270C	Benzo(k)fluoranthene	207-08-9	UG/L			0.3				< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
8270C	Benzoic acid	65-85-0	UG/L			150000				< 13	< 13	< 13	< 13	< 13	< 2700	< 13	170 J	< 13	< 13	< 13	< 13	< 13
8270C	Benzyl alcohol	100-51-6	UG/L			11000				< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	26	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6
8270C	bis(2-Chloroethoxy)methane	111-91-1	UG/L							< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	bis(2-Chloroethyl) ether	111-44-4	UG/L			0.0098				< 1.2	< 1.1	< 1.2	< 1.2	< 1.1	< 1.2	< 1.2	< 1.2	< 1.2	45	< 1.2	< 1.2	< 1.2
8270C	bis(2-Chloroisopropyl) ether	108-60-1	UG/L			0.27				< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
8270C	bis(2-Ethylhexyl) phthalate	117-81-7	UG/L	6		4.8				< 2.7	< 2.6	9.8 UB	< 2.7	< 2.6	< 2.7	9.7 UB	11	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7
8270C	Butyl benzyl phthalate	85-68-7	UG/L			7300				< 0.96	< 0.95	< 0.97	< 0.97	< 0.95	< 0.98	< 0.96	< 0.99	< 0.97	< 0.99	< 0.97	< 0.96	< 0.97
8270C	Chrysene	218-01-9	UG/L			3				< 1	< 1	< 1.1	< 1.1	< 1	< 1.1	< 1	< 1.1	< 1.1	< 1.1	< 1.1	< 1	< 1.1
8270C	Dibenz(a,h)anthracene	53-70-3	UG/L			0.003				< 0.98	< 0.97	< 0.99	< 0.99	< 0.97	< 1	< 0.98	< 1	< 0.99 J	< 1 J	< 0.99	< 0.98 J	< 0.99 J
8270C	Dibenzofuran	132-64-9	UG/L			12				< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1.1	< 1	< 1.1	< 1	< 1	< 1
8270C	Diethyl phthalate	84-66-2	UG/L			29000				< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.4	< 1.5	< 1.4	< 1.5	< 1.4	< 1.4	< 1.4
8270C	Dimethyl phthalate	131-11-3	UG/L			370000				< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.3	< 1.2	< 1.3	< 1.2	< 1.3	< 1.2	< 1.2	< 1.2
8270C	Di-n-butyl phthalate	84-74-2	UG/L			3700				< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	1.1 J
8270C	Di-n-octyl phthalate	117-84-0	UG/L							< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Dinoseb	88-85-7	UG/L	7		37				< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	8700	< 0.4	< 0.41	< 0.4	< 0.41	< 0.4	< 0.4	< 0.4
8270C	Fluoranthene	206-44-0	UG/L			1500				< 0.89	< 0.88	< 0.9	< 0.9	< 0.88	< 0.91	< 0.89	< 0.92	< 0.9	< 0.92	< 0.9	< 0.89	< 0.9
8270C	Fluorene	86-73-7	UG/L			240				< 0.98	< 0.97	< 0.99	< 0.99	< 0.97	< 1	< 0.98	< 1	< 0.99	< 1	< 0.99	< 0.98	< 0.99
8270C	Hexachlorobenzene	118-74-1	UG/L	1		0.042	D032	130		< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.4	< 1.5	< 1.4	< 1.5	< 1.4	< 1.4	< 1.4
8270C	Hexachlorobutadiene	87-68-3	UG/L			0.86	D033	500		< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.3	< 1.2	< 1.3	< 1.2	< 1.3	< 1.2	< 1.2	< 1.2
8270C	Hexachlorocyclopentadiene	77-47-4	UG/L	50		220				< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.4	< 3.3	< 3.4	< 3.3	< 3.4	< 3.3	< 3.3	< 3.3
8270C	Hexachloroethane	67-72-1	UG/L			4.8	D034	3000		< 0.91	< 0.9	< 0.92	< 0.92	< 0.9	< 0.93	< 0.91	< 0.94	< 0.92	< 0.94	< 0.92	< 0.91	< 0.92
8270C	Indeno(1,2,3-cd)pyrene	193-39-5	UG/L			0.03				< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Isophorone	78-59-1	UG/L			71				< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	380	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Naphthalene	91-20-3	UG/L			6.2				< 0.85	< 0.84	< 0.86	< 0.86	< 0.84	< 0.87	< 0.85	< 0.88	< 0.86	< 0.88	< 0.86	< 0.85	< 0.86
8270C	Nitrobenzene	98-95-3	UG/L			3.4	D036	2000		< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	N-Nitrosodi-n-propylamine	621-64-7	UG/L			0.0096				< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
8270C	N-Nitrosodiphenylamine	86-30-6	UG/L			14				< 0.91	< 0.9	< 0.92	< 0.92	< 0.9	< 0.93	< 0.91	< 0.94	< 0.92	< 0.94	< 0.92	< 0.91	< 0.92
8270C	Pentachlorophenol	87-86-5	UG/L	1		0.56	D037	100000		< 5.3	< 5.2	< 5.3	< 5.3	< 5.2	< 5.4	< 5.3	< 5.4	< 5.3	< 5.4	< 5.3	< 5.3	< 5.3
8270C	Phenanthrene	85-01-8	UG/L							< 0.97	< 0.96	< 0.98	< 0.98	< 0.96	< 0.99	< 0.97	< 1	< 0.98	< 1	< 0.98	< 0.97	< 0.98
8270C	Phenol	108-95-2	UG/L			11000				< 2.1	< 2	< 2.1	< 2.1	< 2	< 2.1	< 2.1	< 2.1	< 2.1	6.7 J	< 2.1	< 2.1	< 2.1
8270C	Propanil	709-98-8	UG/L			180				4.2 J	< 0.75	< 0.77	< 0.77	< 0.75	< 0.78	< 0.76	230	< 0.77	< 0.79	< 0.77	< 0.76	< 0.77
8270C	Pyrene	129-00-0	UG/L			180				< 0.89	< 0.88	< 0.9	< 0.9	< 0.88	< 0.91	< 0.89	< 0.92	< 0.9	< 0.92	< 0.9	< 0.89	< 0.9

Table 9
Summer 2008 Groundwater Sampling Analytical Data
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Primary Drinking Water Std (ug/L)	Secondary Drinking Water Std (ug/L)	TapWater MSSL (ug/l)	Haz waste Code	TCLP Reg Number(ug/l)	Sample ID Date Sampled	OFF-MW-5UA 7/25/2008	OFF-MW-5MA 7/25/2008	OFF-MW-5LA 7/25/2008	OFF-MW-6UA 7/25/2008	OFF-MW-6LA 7/25/2008	OFF-MW-6MA 7/25/2008	OFF-MW-7UA 7/25/2008	OFF-MW-7MA 7/24/2008	OFF-MW-7LA 7/24/2008	OFF-MW-8UA 7/24/2008	OFF-MW-8LA 7/24/2008	OFF-MW-8MA 7/24/2008
	Metals																				
6020	Aluminum	7429-90-5	UG/L		50	37000				2290	1640	1440	867	9320	654	1460 J	298	10600	2390	159	572
6020	Antimony	7440-36-0	UG/L	6		15				1.0 UB	1.0 UB	1.0 UB	1.0 UB	1.0 UB	1.0 UB	1.0 UB	1.0 UB	1.0 UB	1.0 UB	< 0.029	1.0 UB
6020	Arsenic	7440-38-2	UG/L	10		0.045	D004	5000		1.2	1.4	1.3	2.7	4.4	4.2	1.0 UB	1.4	3.0	3.4	2.0	1.0 UB
6020	Barium	7440-39-3	UG/L	2000		7300	D005	100000		193	194	192	179	166	193	281	386	824	168	226	182
6020	Beryllium	7440-41-7	UG/L	4		73				0.085 J	0.057 J	0.058 J	0.071 J	0.91 J	0.065 J	0.13 J	0.050 J	1.2	0.16 J	< 0.023	0.045 J
6020	Cadmium	7440-43-9	UG/L	5		18	D006	1000		< 0.023	0.026 J	< 0.023	0.041 J	0.17 J	0.074 J	0.075 J	0.028 J	0.077 J	0.16 J	< 0.023	0.039 J
6020	Calcium	7440-70-2	UG/L							54800	57800	57700	70000	66500	72100	89600	149000	260000	53200	84100	61900
6020	Chromium	7440-47-3	UG/L	100			D007	5000		5.6	6.8	5.7	5.4	14.4	3.2	4.0	0.82 J	4.0	6.0	< 0.56	2.3
6020	Cobalt	7440-48-4	UG/L			730				2.7	2.2	1.6	1.6	6.3	2.0	1.3	0.81 J	2.5	2.3	1.4	1.2
6020	Copper	7440-50-8	UG/L	1300	1000	1400				2.5	3.4	2.6	2.5	11.5	2.3	2.2	0.85 J	4.0	5.4	0.55 J	1.5
6020	Iron	7439-89-6	UG/L		300	26000				10700	11900	10800	4830	13100	4320	11900	9710	22400	4690	8360	6120
6020	Lead	7439-92-1	UG/L	15		15	D008	5000		2.0	1.6	1.2	1.7	17.1	1.4	1.9	0.50 J	11.6	6.2	0.34 J	1.3
6020	Magnesium	7439-95-4	UG/L							25500	27000	26000	31800	29300	32500	35900	57800	102000	10700	35700	28800
6020	Manganese	7439-96-5	UG/L		50	1700				554	590	572	996	1060	792	711	820	1980	276	976	438
6020	Nickel	7440-02-0	UG/L			730				5.8	5.3	4.5	5.2	14.2	4.2	18.4	36.9	48.7	7.7	2.4	3.4
6020	Potassium	7440-09-7	UG/L							2770	3530	4220	2410	3380	3040	2960	2530	7250	4930	2260	1590
6020	Selenium	7782-49-2	UG/L	50		180	D010	1000		1.0 UB	1.0 UB	1.0 UB	6.3	8.8	10.5	1.0 UB	1.0 UB	1.0 UB	1.0 UB	1.0 UB	1.0 UB
6020	Silver	7440-22-4	UG/L		100	180	D011	5000		< 0.04	< 0.04	< 0.04	< 0.04	0.048 J	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
6020	Sodium	7440-23-5	UG/L							26600	16500	16600	21100	82800	40900	35100	31800	174000	42700	13400	18300
6020	Thallium	7440-28-0	UG/L	2		2.6				0.031 J	0.022	< 0.019	0.022 J	0.049 J	< 0.019	0.029 J	< 0.019	0.11 J	0.043 J	< 0.019	< 0.019
6020	Vanadium	7440-62-2	UG/L			180				3.9	3.0	2.5	2.6	13.9	3.5	3.0	0.69 J	8.6	8.6	0.21 J	1.4
6020	Zinc	7440-66-6	UG/L		5000	11000				17.6	18.8	13.9	14.6	33.5	15.2	20.2	20.6	57.1	21.1	12.9	14.8
	Organochlorine Pesticides																				
8081A	4,4'-DDD	72-54-8	UG/L			0.28				< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077 J
8081A	4,4'-DDE	72-55-9	UG/L			0.2				< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075 J
8081A	4,4'-DDT	50-29-3	UG/L			0.2				< 0.015 J	< 0.015 J	< 0.015 J	< 0.015 J	< 0.015 J	< 0.015 J	< 0.015 J	< 0.015	< 0.015 J	< 0.015 J	< 0.015 J	< 0.015 J
8081A	Aldrin	309-00-2	UG/L			0.004				< 0.0059 J	< 0.0059 J	< 0.0059 J	< 0.0059 J	< 0.0059 J	< 0.0059 J	< 0.0059 J	< 0.0059	< 0.0059 J	< 0.0059 J	< 0.0059 J	< 0.0059 J
8081A	alpha-BHC	319-84-6	UG/L			0.011				< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053	< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053 J
8081A	alpha-Chlordane	5103-71-9	UG/L							< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053	< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053 J
8081A	beta-BHC	319-85-7	UG/L			0.037				< 0.0087 J	< 0.0087 J	< 0.0087 J	< 0.0087 J	< 0.0087 J	< 0.0087 J	< 0.0087 J	< 0.0087	< 0.0087 J	< 0.0087 J	< 0.0087 J	< 0.0087 J
8081A	Chlordane (technical)	57-74-9	UG/L	2		0.19	D020	30		< 0.14 J	< 0.14 J	< 0.14 J	< 0.14 J	< 0.14 J	< 0.14 J	< 0.14 J	< 0.14	< 0.14 J	< 0.14 J	< 0.14 J	< 0.14 J
8081A	delta-BHC	319-86-8	UG/L							< 0.0058 J	< 0.0058 J	< 0.0058 J	< 0.0058 J	< 0.0058 J	< 0.0058 J	< 0.0058 J	< 0.0058	< 0.0058 J	< 0.0058 J	< 0.0058 J	< 0.0058 J
8081A	Dieldrin	60-57-1	UG/L			0.0042				< 0.0063 J	< 0.0063 J	< 0.0063 J	< 0.0063 J	< 0.0063 J	< 0.0063 J	< 0.0063 J	< 0.0063	< 0.0063 J	< 0.0063 J	< 0.0063 J	< 0.0063 J
8081A	Endosulfan I	959-98-8	UG/L							< 0.0058 J	< 0.0058 J	< 0.0058 J	< 0.0058 J	< 0.0058 J	< 0.0058 J	< 0.0058 J	< 0.0058	< 0.0058 J	< 0.0058 J	< 0.0058 J	< 0.0058 J
8081A	Endosulfan II	33213-65-9	UG/L							< 0.007 J	< 0.007 J	< 0.007 J	< 0.007 J	< 0.007 J	< 0.007 J	< 0.007 J	< 0.007	< 0.007 J	< 0.007 J	< 0.007 J	< 0.007 J
8081A	Endosulfan sulfate	1031-07-8	UG/L							< 0.0057 J	< 0.0057 J	< 0.0057 J	< 0.0057 J	< 0.0057 J	< 0.0057 J	< 0.0057 J	< 0.0057	< 0.0057 J	< 0.0057 J	< 0.0057 J	< 0.0057 J
8081A	Endrin	72-20-8	UG/L	2		11	D012	20		< 0.0079 J	< 0.0079 J	< 0.0079 J	< 0.0079 J	< 0.0079 J	< 0.0079 J	< 0.0079 J	< 0.0079	< 0.0079 J	< 0.0079 J	< 0.0079 J	< 0.0079 J
8081A	Endrin aldehyde	7421-93-4	UG/L							< 0.0088 J	< 0.0088 J	< 0.0088 J	< 0.0088 J	< 0.0088 J	< 0.0088 J	< 0.0088 J	< 0.0088	< 0.0088 J	< 0.0088 J	< 0.0088 J	< 0.0088 J
8081A	Endrin ketone	53494-70-5	UG/L							< 0.007 J	< 0.007 J	< 0.007 J	< 0.007 J	< 0.007 J	< 0.007 J	< 0.007 J	< 0.007	< 0.007 J	< 0.007 J	< 0.007 J	< 0.007 J
8081A	gamma-BHC (Lindane)	58-89-9	UG/L	0.2		0.052	D013	400		< 0.0069 J	< 0.0069 J	< 0.0069 J	< 0.0069 J	< 0.0069 J	< 0.0069 J	< 0.0069 J	< 0.0069	< 0.0069 J	< 0.0069 J	< 0.0069 J	< 0.0069 J
8081A	gamma-Chlordane	5103-74-2	UG/L							< 0.0091 J	< 0.0091 J	< 0.0091 J	< 0.0091 J	< 0.0091 J	< 0.0091 J	< 0.0091 J	< 0.0091	< 0.0091 J	< 0.0091 J	< 0.0091 J	< 0.0091 J
8081A	Heptachlor	76-44-8	UG/L	0.4		0.015	D031	8		< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077 J
8081A	Heptachlor epoxide	1024-57-3	UG/L	0.2		0.0074				< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075 J
8081A	Methoxychlor	72-43-5	UG/L	40		180	D014	10000		< 0.013 J	< 0.013 J	< 0.013 J	< 0.013 J	< 0.013 J	< 0.013 J	< 0.013 J	< 0.013	< 0.013 J	< 0.013 J	< 0.013 J	< 0.013 J
8081A	Toxaphene	8001-35-2	UG/L	3		0.061	D015	500		< 0.37 J	< 0.37 J	< 0.37 J	< 0.37 J	< 0.37 J	< 0.37 J	< 0.37 J	< 0.37	< 0.37 J	< 0.37 J	< 0.37 J	< 0.37 J
	Herbicides																				
8151A	Dinoseb	88-85-7	UG/L	7		37				< 0.24 J	< 0.24 J	< 0.24 J	< 0.24 J	< 0.24 J	< 0.24 J	< 0.24 J	0.62 J	0.52 J	< 0.24 J	< 0.24 J	< 0.24 J
Volatile Organic Compounds (VOCs)																					
8260B	1,1,1-Trichloroethane	71-55-6	UG/L	200		840				< 0.36	< 0.36	< 0.36	< 36	< 9	< 90	< 0.36	< 0.36	< 0.36	< 18	< 0.36	< 18
8260B	1,1,2,2-Tetrachloroethane	79-34-5	UG/L			0.055				< 0.31	< 0.31	< 0.31	< 31	< 7.8	< 78	< 0.31	< 0.31	< 0.31	< 16	< 0.31	< 16
8260B	1,1,2-Trichloroethane	79-00-5	UG/L	5		0.2				< 0.35	< 0.35	< 0.35	< 35	< 8.8	< 88	< 0.35	< 0.35	< 0.35	< 18	< 0.35	< 18
8260B	1,1-Dichloroethane	75-34-3	UG/L			1200				< 0.37	< 0.37	< 0.37	< 37	< 9.4	< 94	< 0.37	< 0.37	< 0.37	< 19	< 0.37	< 19
8260B	1,1-Dichloroethene	75-35-4	UG/L	7		340	D029	700		< 0.43	< 0.43	< 0.43	< 43	< 11	< 110	< 0.43	< 0.43	< 0.43	< 21	< 0.43	< 21
8260B	1,2-Dibromoethane (EDB)	106-93-4	UG/L	0.05		0.0056				< 0.3	< 0.3	< 0.3	< 30	< 7.5	< 75	< 0.3	< 0.3	< 0.3	< 15	< 0.3	< 15

Table 9
Summer 2008 Groundwater Sampling Analytical Data
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Primary Drinking Water Std (ug/L)	Secondary Drinking Water Std (ug/L)	TapWater MSSL (ug/l)	Haz waste Code	TCLP Reg Number(ug/l)	Sample ID	OFF-MW-5UA	OFF-MW-5MA	OFF-MW-5LA	OFF-MW-6UA	OFF-MW-6LA	OFF-MW-6MA	OFF-MW-7UA	OFF-MW-7MA	OFF-MW-7LA	OFF-MW-8UA	OFF-MW-8LA	OFF-MW-8MA
									Date Sampled	7/25/2008	7/25/2008	7/25/2008	7/25/2008	7/25/2008	7/25/2008	7/25/2008	7/24/2008	7/24/2008	7/24/2008	7/24/2008	7/24/2008
8260B	1,2-Dichlorobenzene	95-50-1	UG/L	600		49				< 0.43	< 0.43	< 0.43	< 43	< 11	< 110	< 0.43	< 0.43	< 0.43	< 22	< 0.43	< 22
8260B	1,2-Dichloroethane	107-06-2	UG/L	5		0.12	D028	500		< 0.39	< 0.39	< 0.39	6100	1200	15000	< 0.39	48	< 0.39	2100	< 0.39	2900
8260B	1,2-Dichloroethene (total)	540-59-0	UG/L							< 0.73	< 0.73	< 0.73	< 73	< 18	< 180	< 0.73	< 0.73	< 0.73	< 37	< 0.73	< 37
8260B	1,2-Dichloropropane	78-87-5	UG/L	5		0.17				< 0.37	< 0.37	< 0.37	< 37	< 9.3	< 93	< 0.37	< 0.37	< 0.37	< 19	< 0.37	< 19
8260B	1,3-Dichlorobenzene	541-73-1	UG/L			15				< 0.39	< 0.39	< 0.39	< 39	< 9.6	< 96	< 0.39	< 0.39	< 0.39	< 19	< 0.39	< 19
8260B	1,4-Dichlorobenzene	106-46-7	UG/L	75		0.47	D027	7500		< 0.38	< 0.38	< 0.38	< 38	< 9.4	< 94	< 0.38	< 0.38	< 0.38	< 19	< 0.38	< 19
8260B	2-Butanone (MEK)	78-93-3	UG/L			7100	D035	200000		5.9	1.1 J	< 0.84	< 84	< 21	< 210	< 0.84	1.1 J	1.5 J	< 42	< 0.84	< 42
8260B	2-Hexanone	591-78-6	UG/L							15	2.0 J	1.2 J	< 27	< 6.7	< 67	0.68 J	0.84 J	1.9 J	< 13	< 0.27	< 13
8260B	4-Methyl-2-pentanone (MIBK)	108-10-1	UG/L			2000				< 0.42	< 0.42	< 0.42	< 42	< 10	< 100	< 0.42	< 0.42	< 0.42	< 21	< 0.42	< 21
8260B	Acetone	67-64-1	UG/L			5500				12	4.2 J	2.5 J	< 82	< 20	< 200	3.0 J	5.0 UB	5.0 UB	< 41	2.5 J	< 41
8260B	Benzene	71-43-2	UG/L	5		0.35	D018	500		< 0.39	< 0.39	< 0.39	< 39	< 9.8	< 98	< 0.39	< 0.39	1.4	< 20	< 0.39	< 20
8260B	Bromobenzene	108-86-1	UG/L			23				< 0.39	< 0.39	< 0.39	< 39	< 9.9	< 99	< 0.39	< 0.39	< 0.39	< 20	< 0.39	< 20
8260B	Bromochloromethane	74-97-5	UG/L							< 0.37	< 0.37	< 0.37	< 37	< 9.2	< 92	< 0.37	< 0.37	< 0.37	< 18	< 0.37	< 18
8260B	Bromodichloromethane	75-27-4	UG/L			0.18				< 0.37	< 0.37	< 0.37	< 37	< 9.2	< 92	< 0.37	< 0.37	< 0.37	< 18	< 0.37	< 18
8260B	Bromoform	75-25-2	UG/L			8.5				< 0.27	< 0.27	< 0.27	< 27	< 6.7	< 67	< 0.27	< 0.27	< 0.27	< 13	< 0.27	< 13
8260B	Bromomethane	74-83-9	UG/L			8.7				< 0.72	< 0.72	< 0.72	< 72	< 18	< 180	< 0.72	< 0.72	< 0.72	< 36	< 0.72	< 36
8260B	Carbon disulfide	75-15-0	UG/L			1000				< 0.38	< 0.38	< 0.38	< 38	< 9.6	< 96	< 0.38	< 0.38	< 0.38	< 19	< 0.38	< 19
8260B	Carbon tetrachloride	56-23-5	UG/L	5		0.17	D019	500		< 0.41	< 0.41	< 0.41	< 41	< 10	< 100	< 0.41	< 0.41	< 0.41	< 20	< 0.41	< 20
8260B	Chlorobenzene	108-90-7	UG/L	100		91	D021	100000		< 0.33	< 0.33	< 0.33	< 33	< 8.3	< 83	< 0.33	0.57 J	7.6	< 17	< 0.33	< 17
8260B	Chloroethane	75-00-3	UG/L			3.9				< 0.45	< 0.45	< 0.45	< 45	< 11	< 110	< 0.45	0.48 J	2.0	< 22	< 0.45	< 22
8260B	Chloroform	67-66-3	UG/L			0.17	D022	6000		< 0.35	< 0.35	< 0.35	< 35	< 8.7	< 87	< 0.35	< 0.35	< 0.35	< 17	< 0.35	< 17
8260B	Chloromethane	74-87-3	UG/L			2.1				< 0.48	< 0.48	< 0.48	< 48	< 12	< 120	< 0.48	1.2 J	0.48 J	< 24	< 0.48	< 24
8260B	cis-1,2-Dichloroethene	156-59-2	UG/L	70		61				< 0.37	< 0.37	< 0.37	< 37	< 9.2	< 92	< 0.37	< 0.37	< 0.37	< 18	< 0.37	< 18
8260B	cis-1,3-Dichloropropene	10061-01-5	UG/L			0.4				< 0.31	< 0.31	< 0.31	< 31	< 7.7	< 77	< 0.31	< 0.31	< 0.31	< 15	< 0.31	< 15
8260B	Dibromochloromethane	124-48-1	UG/L			0.13				< 0.28	< 0.28	< 0.28	< 28	< 7	< 70	< 0.28	< 0.28	< 0.28	< 14	< 0.28	< 14
8260B	Dibromomethane	74-95-3	UG/L			61				< 0.41	< 0.41	< 0.41	< 41	< 10	< 100	< 0.41	< 0.41	< 0.41	< 20	< 0.41	< 20
8260B	Ethylbenzene	100-41-4	UG/L	700		1300				< 0.42	< 0.42	< 0.42	< 42	< 10	< 100	< 0.42	< 0.42	< 0.42	< 21	< 0.42	< 21
8260B	Methylene chloride	75-09-2	UG/L	5		4.3				< 0.42	< 0.42	< 0.42	< 42	< 11	< 110	< 0.42	< 0.42	< 0.42	< 21	< 0.42	< 21
8260B	m-Xylene & p-Xylene	136777-61-2	UG/L							< 0.83	< 0.83	< 0.83	< 83	< 21	< 210	< 0.83	< 0.83	< 0.83	< 41	< 0.83	< 41
8260B	o-Xylene	95-47-6	UG/L			1400				< 0.39	< 0.39	< 0.39	< 39	< 9.7	< 97	< 0.39	< 0.39	< 0.39	< 19	< 0.39	< 19
8260B	Styrene	100-42-5	UG/L	100		1600				< 0.31	< 0.31	< 0.31	< 31	< 7.8	< 78	< 0.31	< 0.31	< 0.31	< 16	< 0.31	< 16
8260B	Tetrachloroethene	127-18-4	UG/L	5		0.11	D039	700		< 0.4	< 0.4	< 0.4	< 40	< 9.9	< 99	< 0.4	< 0.4	< 0.4	< 20	< 0.4	< 20
8260B	Toluene	108-88-3	UG/L	1000		2300				< 0.39	< 0.39	< 0.39	< 39	< 9.8	< 98	< 0.39	< 0.39	0.78 J	< 20	< 0.39	< 20
8260B	trans-1,2-Dichloroethene	156-60-5	UG/L	100		110				< 0.37	< 0.37	< 0.37	< 37	< 9.3	< 93	< 0.37	< 0.37	0.44 J	< 19	< 0.37	< 19
8260B	trans-1,3-Dichloropropene	10061-02-6	UG/L			0.4				< 0.21	< 0.21	< 0.21	< 21	< 5.2	< 52	< 0.21	< 0.21	< 0.21	< 10	< 0.21	< 10
8260B	Trichloroethene	79-01-6	UG/L	5		0.028	D040	500		< 0.45	< 0.45	< 0.45	< 45	< 11	< 110	< 0.45	< 0.45	< 0.45	< 22	< 0.45	< 22
8260B	Trichlorofluoromethane	75-69-4	UG/L			1300				< 0.47	< 0.47	< 0.47	< 47	< 12	< 120	< 0.47	< 0.47	< 0.47	< 24	< 0.47	< 24
8260B	Vinyl acetate	108-05-4	UG/L			410				< 0.29	< 0.29	< 0.29	< 29	< 7.3	< 73	< 0.29	< 0.29	< 0.29	< 15	< 0.29	< 15
8260B	Vinyl chloride	75-01-4	UG/L	2		0.015	D043	200		< 0.4	< 0.4	< 0.4	< 40	< 10	< 100	< 0.4	< 0.4	< 0.4	< 20	< 0.4	< 20
8260B	Xylenes (total)	1330-20-7	UG/L	10000		200				< 1.2	< 1.2	< 1.2	< 120	< 30	< 300	< 1.2	< 1.2	< 1.2	< 60	< 1.2	< 60
Semivolatile Organic Compounds (SVOCs)																					
8270C	1,2,4-Trichlorobenzene	120-82-1	UG/L	70		8.2				< 0.81	< 0.81	< 0.82	< 0.81	< 0.83	< 0.82	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.84
8270C	1,2-Dichlorobenzene	95-50-1	UG/L	600		49				< 0.94	< 0.94	< 0.95	< 0.93	< 0.96	< 0.95	< 0.94	< 0.93	< 0.93	< 0.93	< 0.93	< 0.97
8270C	1,3-Dichlorobenzene	541-73-1	UG/L			15				< 0.96	< 0.96	< 0.97	< 0.95	< 0.98	< 0.97	< 0.96	< 0.95	< 0.95	< 0.95	< 0.95	< 0.99
8270C	1,4-Dichlorobenzene	106-46-7	UG/L	75		0.47	D027	7500		< 0.78	< 0.78	< 0.79	< 0.78	< 0.8	< 0.79	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.81
8270C	2,4,5-Trichlorophenol	95-95-4	UG/L			3700	D041	400000		< 0.97	< 0.97	< 0.98	< 0.96	< 0.99	< 0.98	< 0.97	< 0.96	< 0.96	< 0.96	< 0.96	< 1
8270C	2,4,6-Trichlorophenol	88-06-2	UG/L			6.1	D042	2000		< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	2,4-Dichlorophenol	120-83-2	UG/L			110				< 1	< 1	< 1	< 0.99	< 1	< 1	< 1	< 0.99	< 0.99	< 0.99	< 0.99	< 1
8270C	2,4-Dimethylphenol	105-67-9	UG/L			730				< 1.8	< 1.8	< 1.9	< 1.8	< 1.9	< 1.9	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.9
8270C	2,4-Dinitrophenol	51-28-5	UG/L			73				< 3.6	< 3.6	< 3.7	< 3.6	< 3.7	< 3.7	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.7
8270C	2,4-Dinitrotoluene	121-14-2	UG/L			73	D030	130		< 2.8	< 2.8	< 2.8	< 2.8	< 2.9	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.9
8270C	2,6-Dinitrotoluene	606-20-2	UG/L			37				< 1	< 1	< 1	< 0.98	< 1	< 1	< 1	< 0.98	< 0.98	< 0.98	< 0.98	< 1
8270C	2-Chloronaphthalene	91-58-7	UG/L			490				< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5
8270C	2-Chlorophenol	95-57-8	UG/L			30				< 1.4	< 1.4	< 1.5	< 1.4	< 1.5	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5
8270C	2-Methylnaphthalene	91-57-6	UG/L							< 0.94	< 0.94	< 0.95	< 0.93	< 0.96	< 0.95	< 0.94	< 0.93	< 0.93	< 0.93	< 0.93	< 0.97

Table 9
Summer 2008 Groundwater Sampling Analytical Data
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Primary Drinking Water Std (ug/L)	Secondary Drinking Water Std (ug/L)	TapWater MSSL (ug/l)	Haz waste Code	TCLP Reg Number(ug/l)	Sample ID Date Sampled	OFF-MW-5UA 7/25/2008	OFF-MW-5MA 7/25/2008	OFF-MW-5LA 7/25/2008	OFF-MW-6UA 7/25/2008	OFF-MW-6LA 7/25/2008	OFF-MW-6MA 7/25/2008	OFF-MW-7UA 7/25/2008	OFF-MW-7MA 7/24/2008	OFF-MW-7LA 7/24/2008	OFF-MW-8UA 7/24/2008	OFF-MW-8LA 7/24/2008	OFF-MW-8MA 7/24/2008
8270C	2-Methylphenol	95-48-7	UG/L			1800	D023	200000		< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
8270C	2-Nitroaniline	88-74-4	UG/L			110				< 1.2	< 1.2	< 1.2	< 1.1	< 1.2	< 1.2	< 1.2	< 1.1	< 1.1	< 1.1	< 1.1	< 1.2
8270C	2-Nitrophenol	88-75-5	UG/L							< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1.1
8270C	3,3'-Dichlorobenzidine	91-94-1	UG/L			0.15				< 1.7 J	< 1.7 J	< 1.7 J	< 1.6 J	< 1.7 J	< 1.7 J	< 1.7 J	< 1.6	< 1.6	< 1.6 J	< 1.6 J	< 1.7 J
8270C	3,4-Dichloroaniline	95-76-1	UG/L							< 1	< 1	< 1	< 0.98	< 1	< 1	< 1	< 0.98	< 0.98	< 0.98	< 0.98	< 1
8270C	3-Methylphenol & 4-Methylphenol	65794-96-9	UG/L			180				< 2.5	< 2.5	< 2.5	< 2.5	< 2.6	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.6
8270C	3-Nitroaniline	99-09-2	UG/L							< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
8270C	4,6-Dinitro-2-methylphenol	534-52-1	UG/L							< 3.5	< 3.5	< 3.5	< 3.4	< 3.5	< 3.5	< 3.5	< 3.4	< 3.4	< 3.4	< 3.4	< 3.6
8270C	4-Bromophenyl phenyl ether	101-55-3	UG/L							< 0.91	< 0.91	< 0.91	< 0.9	< 0.92	< 0.91	< 0.91	< 0.9	< 0.9	< 0.9	< 0.9	< 0.93
8270C	4-Chloro-3-methylphenol	59-50-7	UG/L							< 1	< 1	< 1.1	< 1	< 1.1	< 1.1	< 1	< 1	< 1	< 1	< 1	< 1.1
8270C	4-Chloroaniline	106-47-8	UG/L			150				< 1.6 J	< 1.6 J	< 1.6 J	< 1.6 J	< 1.6 J	< 1.6 J	< 1.6 J	< 1.6	1.9 J	< 1.6 J	< 1.6 J	< 1.7 J
8270C	4-Chlorophenyl phenyl ether	7005-72-3	UG/L							< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
8270C	4-Nitroaniline	100-01-6	UG/L							< 1.1	< 1.1	< 1.1	< 1	< 1.1	< 1.1	< 1.1	< 1	< 1	< 1	< 1	< 1.1
8270C	4-Nitrophenol	100-02-7	UG/L			290				< 4	< 4	< 4	< 3.9	< 4.1	< 4	< 4	< 3.9	< 3.9	< 3.9	< 3.9	< 4.1
8270C	Acenaphthene	83-32-9	UG/L			370				< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Acenaphthylene	208-96-8	UG/L							< 0.88	< 0.88	< 0.89	< 0.87	< 0.9	< 0.89	< 0.88	< 0.87	< 0.87	< 0.87	< 0.87	< 0.9
8270C	Aniline	62-53-3	UG/L			12				< 2 J	< 2 J	< 2 J	< 2 J	< 2 J	< 2 J	< 2 J	< 2	< 2	< 2 J	< 2 J	< 2 J
8270C	Anthracene	120-12-7	UG/L			1800				< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Benzo(a)anthracene	56-55-3	UG/L			0.03				< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Benzo(a)pyrene	50-32-8	UG/L	0.2		0.003				< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Benzo(b)fluoranthene	205-99-2	UG/L			0.03				< 0.76	< 0.76	< 0.77	< 0.76	< 0.78	< 0.77	< 0.76	< 0.76	< 0.76	< 0.76	< 0.76	< 0.79
8270C	Benzo(ghi)perylene	191-24-2	UG/L							< 0.74	< 0.74	< 0.75	< 0.73	< 0.75	< 0.75	< 0.74	< 0.73	< 0.73	< 0.73	< 0.73	< 0.76
8270C	Benzo(k)fluoranthene	207-08-9	UG/L			0.3				< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
8270C	Benzoic acid	65-85-0	UG/L			150000				< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13
8270C	Benzyl alcohol	100-51-6	UG/L			11000				< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6
8270C	bis(2-Chloroethoxy)methane	111-91-1	UG/L							< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	bis(2-Chloroethyl) ether	111-44-4	UG/L			0.0098				< 1.2	< 1.2	< 1.2	< 1.1	< 1.2	< 1.2	< 1.2	< 1.1	12	< 1.1	< 1.1	< 1.2
8270C	bis(2-Chloroisopropyl) ether	108-60-1	UG/L			0.27				< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
8270C	bis(2-Ethylhexyl) phthalate	117-81-7	UG/L	6		4.8				< 2.7	41	< 2.7	< 2.6	< 2.7	< 2.7	< 2.7	< 2.6	< 2.6	< 2.6	< 2.6	6.9 J
8270C	Butyl benzyl phthalate	85-68-7	UG/L			7300				< 0.96	< 0.96	< 0.97	< 0.95	< 0.98	< 0.97	< 0.96	< 0.95	< 0.95	< 0.95	< 0.95	< 0.99
8270C	Chrysene	218-01-9	UG/L			3				< 1	< 1	< 1.1	< 1	< 1.1	< 1.1	< 1	< 1	< 1	< 1	< 1	< 1.1
8270C	Dibenz(a,h)anthracene	53-70-3	UG/L			0.003				< 0.98	< 0.98	< 0.99	< 0.97	< 1	< 0.99	< 0.98	< 0.97 J	< 0.97 J	< 0.97	< 0.97	< 1
8270C	Dibenzofuran	132-64-9	UG/L			12				< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1.1
8270C	Diethyl phthalate	84-66-2	UG/L			29000				< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5
8270C	Dimethyl phthalate	131-11-3	UG/L			370000				< 1.2	< 1.2	< 1.2	< 1.2	< 1.3	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.3
8270C	Di-n-butyl phthalate	84-74-2	UG/L			3700				< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	1.9 J	< 1.1	< 1.1	< 1.1
8270C	Di-n-octyl phthalate	117-84-0	UG/L							< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Dinoseb	88-85-7	UG/L	7		37				< 0.4	< 0.4	< 0.4	< 0.4	< 0.41	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.41
8270C	Fluoranthene	206-44-0	UG/L			1500				< 0.89	< 0.89	< 0.9	< 0.88	< 0.91	< 0.9	< 0.89	< 0.88	< 0.88	< 0.88	< 0.88	< 0.92
8270C	Fluorene	86-73-7	UG/L			240				< 0.98	< 0.98	< 0.99	< 0.97	< 1	< 0.99	< 0.98	< 0.97	< 0.97	< 0.97	< 0.97	< 1
8270C	Hexachlorobenzene	118-74-1	UG/L	1		0.042	D032	130		< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5
8270C	Hexachlorobutadiene	87-68-3	UG/L			0.86	D033	500		< 1.2	< 1.2	< 1.2	< 1.2	< 1.3	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.3
8270C	Hexachlorocyclopentadiene	77-47-4	UG/L	50		220				< 3.3	< 3.3	< 3.3	< 3.3	< 3.4	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.4
8270C	Hexachloroethane	67-72-1	UG/L			4.8	D034	3000		< 0.91	< 0.91	< 0.92	< 0.9	< 0.93	< 0.92	< 0.91	< 0.9	< 0.9	< 0.9	< 0.9	< 0.94
8270C	Indeno(1,2,3-cd)pyrene	193-39-5	UG/L			0.03				< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Isophorone	78-59-1	UG/L			71				< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Naphthalene	91-20-3	UG/L			6.2				< 0.85	< 0.85	< 0.86	< 0.84	< 0.87	< 0.86	< 0.85	< 0.84	< 0.84	< 0.84	< 0.84	< 0.88
8270C	Nitrobenzene	98-95-3	UG/L			3.4	D036	2000		< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	N-Nitrosodi-n-propylamine	621-64-7	UG/L			0.0096				< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
8270C	N-Nitrosodiphenylamine	86-30-6	UG/L			14				< 0.91	< 0.91	< 0.92	< 0.9	< 0.93	< 0.92	< 0.91	< 0.9	< 0.9	< 0.9	< 0.9	< 0.94
8270C	Pentachlorophenol	87-86-5	UG/L	1		0.56	D037	100000		< 5.3	< 5.3	< 5.3	< 5.2	< 5.4	< 5.3	< 5.3	< 5.2	< 5.2	< 5.2	< 5.2	< 5.4
8270C	Phenanthrene	85-01-8	UG/L							< 0.97	< 0.97	< 0.98	< 0.96	< 0.99	< 0.98	< 0.97	< 0.96	< 0.96	< 0.96	< 0.96	< 1
8270C	Phenol	108-95-2	UG/L			11000				< 2.1	< 2.1	< 2.1	< 2	< 2.1	< 2.1	< 2.1	< 2	< 2	< 2 J	< 2	< 2.1
8270C	Propanil	709-98-8	UG/L			180				< 0.76	< 0.76	< 0.77	< 0.75	< 0.78	< 0.77	< 0.76	< 0.75	< 0.75	< 0.75	< 0.75	< 0.79
8270C	Pyrene	129-00-0	UG/L			180				< 0.89	< 0.89	< 0.9	< 0.88	< 0.91	< 0.9	< 0.89	< 0.88	< 0.88	< 0.88	< 0.88	< 0.92

Table 9
Summer 2008 Groundwater Sampling Analytical Data
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Notes:

--	No data available for reported analyte
<	The analyte was not detected at the concentration given.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
UB	Not detected substantially above the concentration reported in the laboratory or field blanks. For organics - 5X (10X for common laboratory contaminants) or for metals 10X. Data point considered non-detect at the reported value.
UA	Upper Alluvial Aquifer
MA	Middle Alluvial Aquifer
LA	Lower Alluvial Aquifer

TABLE 10

Fall 2008 Groundwater Sampling Analytical Data

Table 10
Fall 2008 Groundwater Sampling Analytical Results
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Primary Drinking Water Std (ug/L)	Secondary Drinking Water Std (ug/L)	TapWater MSSL (ug/l)	1MW-1 9/25/2008	1MW-2 9/26/2008	1MW-3 9/27/2008	1MW-4 9/27/2008	1MW-5 9/27/2008	1MW-6 9/27/2008	1MW-7 9/25/2008	2MW-1 9/26/2008	2MW-2 9/25/2008	2MW-3 9/23/2008	2MW-4 9/24/2008	2MW-5 9/25/2008	2MW-6 9/24/2008
	Metals																		
6020	Aluminum	7429-90-5	UG/L		50	37000	1380	< 30.3	1890	< 30.3	33.1 J	48.7 J	56.6	766	33.6 J	< 30.3	167	43.4 J	1380
6020	Antimony	7440-36-0	UG/L	6		15	< 0.029	1.0 UB	1.0 UB	1.0 UB	1.0 UB	1.0 UB	< 0.029	1.0 UB	< 0.029	1.0 UB	1.0 UB	0.25 J	1.0 UB
6020	Arsenic	7440-38-2	UG/L	10		0.045	17	4	2	0.53 J	0.69 J	0.99 J	0.39 J	4.3	26.3	152	44.2	1.5	4.3
6020	Barium	7440-39-3	UG/L	2000		7300	168	95.1	169	111	115	721	451	46.5	9.9	89.5	958	51	94.6
6020	Beryllium	7440-41-7	UG/L	4		73	0.22 J	< 0.023	0.16 J	< 0.023	< 0.023	< 0.023	< 0.023	0.099 J	0.095 J	< 0.023	0.061 J	0.026 J	0.081 J
6020	Cadmium	7440-43-9	UG/L	5		18	0.24 J	0.024 J	0.28 J	0.19 J	0.042 J	0.024 J	< 0.023	3.6	0.15 J	0.032 J	0.2 J	0.21 J	0.32 J
6020	Calcium	7440-70-2	UG/L				60600	56400	89000	109000	57900	283000	124000	50400	45700	136000	797000	108000	124000
6020	Chromium	7440-47-3	UG/L	100			32.1	< 0.56	3.4	0.78 J	1	< 0.56	2.8	4.3	13.7	1.2	29.7	21.2	11.8
6020	Cobalt	7440-48-4	UG/L			730	3.8	1.0 UB	2.3	0.13 J	0.09 J	0.32 J	0.26 J	67.6	2.1	1.3	19.5	0.92 J	3.1
6020	Copper	7440-50-8	UG/L	1300	1000	1400	5.7 JH	0.54 J	4.5	1.1	0.57 J	1	1.0 UB	35.6	8.3 JH	1.0 UB	6.5	5.8 JH	6.3
6020	Iron	7439-89-6	UG/L		300	26000	4610	1970	2900	38.5 J	48.3 J	7630	2980	2720	10000	14400	53500	589	2490
6020	Lead	7439-92-1	UG/L	15		15	3.7 JH	0.11 J	2.3	0.052 J	0.054 J	0.16 J	1.0 UB	1.2	1.0 UB	0.059 J	0.72 J	1.0 UB	3.1
6020	Magnesium	7439-95-4	UG/L				29600	46300	67300	89600	31300	142000	49100	10300	15900	63800	370000	31800	36800
6020	Manganese	7439-96-5	UG/L		50	1700	1670	991	1380	29.1	3.1 J	672	328	22300	740	1180	12100	240	504
6020	Nickel	7440-02-0	UG/L			730	51.3	2.2	10.1	2.9	1.4	7.8	5.3 JH	181	14.8	7.6	148	12.6	20.7
6020	Potassium	7440-09-7	UG/L				3580 J	283 J	746 J	251 J	< 220	1620 J	1670 J	492000	1460 J	1650	302000	2440 J	2780
6020	Selenium	7782-49-2	UG/L	50		180	1.0 UB	0.24 J	< 0.11	5.7	0.98 J	0.47 J	1.0 UB	1.4	1.0 UB	0.24 J	2.1	1.0 UB	3.3
6020	Silver	7440-22-4	UG/L		100	180	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	0.062 J	< 0.04	< 0.04	< 0.04	< 0.04
6020	Sodium	7440-23-5	UG/L				3260 J	32600	175000	118000	57700	291000	17500	86000	132000	392000	171000	36400	72600
6020	Thallium	7440-28-0	UG/L	2		2.6	< 0.019	< 0.019	0.07 J	< 0.019	< 0.019	< 0.019	< 0.019	0.17 J	< 0.019	< 0.019	< 0.019	< 0.019	0.074 J
6020	Vanadium	7440-62-2	UG/L			180	7.7	0.21 J	6.4	1.5	1.5	1	0.4 J	2.4	0.27 J	0.45 J	3.2	2.4	17.6
6020	Zinc	7440-66-6	UG/L		5000	11000	29.9	4.1 J	19.6	5 J	4.9 J	26.3	18.8 JH	15.8	24.3	7.7 J	55.1	21.7 JH	21.9
	Organochlorine Pesticides																		
8081A	4,4'-DDD	72-54-8	UG/L			0.28	< 0.0077	< 0.0077	< 0.0077 J	< 0.0077	< 0.0077	< 0.0077	< 0.0077 J	< 0.077	0.024 J	< 0.0073 J	0.041 J	< 0.0077	< 0.0075 J
8081A	4,4'-DDE	72-55-9	UG/L			0.2	< 0.0075	< 0.0075	< 0.0075 J	< 0.0075	< 0.0075	< 0.0075	< 0.0075 J	< 0.075	< 0.0094	< 0.0071 J	< 0.0071 J	< 0.0075	< 0.0073 J
8081A	4,4'-DDT	50-29-3	UG/L			0.2	< 0.015	< 0.015	0.015 J	< 0.015	< 0.015	< 0.015	< 0.015 J	< 0.15	< 0.018	< 0.014 J	< 0.014 J	< 0.015	< 0.014 J
8081A	Aldrin	309-00-2	UG/L			0.004	< 0.0059	< 0.0059	< 0.0059 J	< 0.0059	< 0.0059	< 0.0059	< 0.0059 J	< 0.059	< 0.0074	0.053 J	0.046 J	< 0.0059	< 0.0057 J
8081A	alpha-BHC	319-84-6	UG/L			0.011	< 0.0053	< 0.0053	< 0.0053 J	< 0.0053	< 0.0053	< 0.0053	< 0.0053 J	0.21 J	< 0.0066	0.0056 J	< 0.005 J	< 0.0053	< 0.0051 J
8081A	alpha-Chlordane	5103-71-9	UG/L				< 0.0053	< 0.0053	< 0.0053 J	< 0.0053	< 0.0053	< 0.0053	< 0.0053 J	< 0.053	< 0.0066	< 0.005 J	< 0.005 J	< 0.0053	< 0.0051 J
8081A	beta-BHC	319-85-7	UG/L			0.037	< 0.0087	< 0.0087	< 0.0087 J	< 0.0087	< 0.0087	< 0.0087	< 0.0087 J	< 0.087	< 0.011	0.046 J	< 0.0083 J	< 0.0087	< 0.0084 J
8081A	Chlordane (technical)	57-74-9	UG/L	2		0.19	< 0.14	< 0.14	< 0.14 J	< 0.14	< 0.14	< 0.14	< 0.14 J	< 1.4	< 0.18	< 0.13 J	< 0.13 J	< 0.14	< 0.14 J
8081A	delta-BHC	319-86-8	UG/L				< 0.0058	< 0.0058	< 0.0058 J	0.050 UBJ	< 0.0058	0.050 UBJ	< 0.0058 J	< 0.058	< 0.0072	< 0.0055 J	< 0.0055 J	< 0.0058	< 0.0056 J
8081A	Dieldrin	60-57-1	UG/L			0.0042	< 0.0063	< 0.0063	< 0.0063 J	< 0.0063	< 0.0063	< 0.0063	< 0.0063 J	< 0.063	< 0.0079	< 0.006 J	< 0.006 J	< 0.0063	< 0.0061 J
8081A	Endosulfan I	959-98-8	UG/L				< 0.0058	< 0.0058	< 0.0058 J	< 0.0058	< 0.0058	< 0.0058	< 0.0058 J	< 0.058	< 0.0072	< 0.0055 J	< 0.0055 J	< 0.0058	< 0.0056 J
8081A	Endosulfan II	33213-65-9	UG/L				< 0.007	< 0.007	< 0.007 J	< 0.007	< 0.007	< 0.007	< 0.007 J	< 0.07	< 0.0088	< 0.0066 J	< 0.0066 J	< 0.007	< 0.0068 J
8081A	Endosulfan sulfate	1031-07-8	UG/L				< 0.0057	< 0.0057	< 0.0057 J	< 0.0057	< 0.0057	< 0.0057	< 0.0057 J	< 0.057	< 0.0071	< 0.0054 J	< 0.0054 J	< 0.0057	< 0.0055 J
8081A	Endrin	72-20-8	UG/L	2		11	< 0.0079	< 0.0079	< 0.0079 J	< 0.0079	< 0.0079	< 0.0079	< 0.0079 J	< 0.079	< 0.0099	< 0.0075 J	< 0.0075 J	< 0.0079	< 0.0077 J
8081A	Endrin aldehyde	7421-93-4	UG/L				< 0.0088	< 0.0088	< 0.0088 J	< 0.0088	< 0.0088	< 0.0088	< 0.0088 J	0.95 J	0.013 J	< 0.0084 J	< 0.0084 J	< 0.0088	< 0.0085 J
8081A	Endrin ketone	53494-70-5	UG/L				< 0.007	< 0.007	< 0.007 J	< 0.007	< 0.007	< 0.007	< 0.007 J	0.15 J	0.023 J	< 0.0066 J	< 0.0066 J	< 0.007	< 0.0068 J
8081A	gamma-BHC (Lindane)	58-89-9	UG/L	0.2		0.052	< 0.0069	< 0.0069	< 0.0069 J	< 0.0069	< 0.0069	< 0.0069	< 0.0069 J	< 0.069	< 0.0086	0.059 J	< 0.0066 J	< 0.0069	< 0.0067 J
8081A	gamma-Chlordane	5103-74-2	UG/L				< 0.0091	< 0.0091	< 0.0091 J	< 0.0091	< 0.0091	< 0.0091	< 0.0091 J	< 0.091	< 0.011	< 0.0086 J	< 0.0086 J	< 0.0091	< 0.0088 J
8081A	Heptachlor	76-44-8	UG/L	0.4		0.015	< 0.0077	< 0.0077	< 0.0077 J	< 0.0077	< 0.0077	< 0.0077	< 0.0077 J	< 0.077	< 0.0096	< 0.0073 J	< 0.0073 J	0.076 J	< 0.0075 J
8081A	Heptachlor epoxide	1024-57-3	UG/L	0.2		0.0074	< 0.0075	< 0.0075	< 0.0075 J	< 0.0075	< 0.0075	< 0.0075	< 0.0075 J	< 0.075	< 0.0094	< 0.0071 J	0.098 J	< 0.0075	< 0.0073 J
8081A	Methoxychlor	72-43-5	UG/L	40		180	< 0.013	< 0.013	< 0.013 J	< 0.013	< 0.013	< 0.013	< 0.013 J	8	< 0.016	< 0.012 J	< 0.012 J	< 0.013	< 0.013 J
8081A	Toxaphene	8001-35-2	UG/L	3		0.061	< 0.37	< 0.37	< 0.37 J	< 0.37	< 0.37	< 0.37	< 0.37 J	< 3.7	< 0.46	< 0.35 J	< 0.35 J	< 0.37	< 0.36 J
	Herbicides																		
8151A	Dinoseb	88-85-7	UG/L	7		37	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	7.4 J	1.9	< 0.24	2.1 J	27	0.58 J
	Volatile Organic Compounds (VOCs)																		
8260B	1,1,1-Trichloroethane	71-55-6	UG/L	200		840	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 18	< 0.36	< 0.36	< 7.2	< 0.36	< 0.36
8260B	1,1,2,2-Tetrachloroethane	79-34-5	UG/L			0.055	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 16	< 0.31	< 0.31	< 6.2	< 0.31	< 0.31
8260B	1,1,2-Trichloroethane	79-00-5	UG/L	5		0.2	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 18	< 0.35	< 0.35	< 7	< 0.35	< 0.35
8260B	1,1-Dichloroethane	75-34-3	UG/L			1200	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 19	< 0.37	< 0.37	< 7.5	< 0.37	< 0.37
8260B	1,1-Dichloroethene	75-35-4	UG/L	7		340	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 21	< 0.43	< 0.43	< 8.5	< 0.43	< 0.43

Table 10
Fall 2008 Groundwater Sampling Analytical Results
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Primary Drinking Water Std (ug/L)	Secondary Drinking Water Std (ug/L)	TapWater MSSL (ug/l)	1MW-1 9/25/2008	1MW-2 9/26/2008	1MW-3 9/27/2008	1MW-4 9/27/2008	1MW-5 9/27/2008	1MW-6 9/27/2008	1MW-7 9/25/2008	2MW-1 9/26/2008	2MW-2 9/25/2008	2MW-3 9/23/2008	2MW-4 9/24/2008	2MW-5 9/25/2008	2MW-6 9/24/2008
8260B	1,2-Dibromoethane (EDB)	106-93-4	UG/L	0.05		0.0056	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 15	< 0.3	< 0.3	< 6	< 0.3	< 0.3
8260B	1,2-Dichlorobenzene	95-50-1	UG/L	600		49	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	530	< 0.43	66	1100	< 0.43	1.3
8260B	1,2-Dichloroethane	107-06-2	UG/L	5		0.12	< 0.39	< 0.39	4.8	11	< 0.39	< 0.39	1.6	560	< 0.39	6.8	660	< 0.39	< 0.39
8260B	1,2-Dichloroethene (total)	540-59-0	UG/L				< 0.73	< 0.73	< 0.73	< 0.73	< 0.73	< 0.73	< 0.73	< 37	< 0.73	< 0.73	< 15	< 0.73	< 0.73
8260B	1,2-Dichloropropane	78-87-5	UG/L	5		0.17	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 19	< 0.37	< 0.37	< 7.5	< 0.37	< 0.37
8260B	1,3-Dichlorobenzene	541-73-1	UG/L			15	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 19	< 0.39	< 0.39	< 7.7	< 0.39	< 0.39
8260B	1,4-Dichlorobenzene	106-46-7	UG/L	75		0.47	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 19	< 0.38	0.8 J	< 7.5	< 0.38	< 0.38
8260B	2-Butanone (MEK)	78-93-3	UG/L			7100	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84	< 42	1.2 J	< 0.84	< 17	< 0.84	< 0.84
8260B	2-Chloroethyl vinyl ether	110-75-8	UG/L				< 0.62	< 0.62	< 0.62	< 0.62	< 0.62	< 0.62	< 0.62	< 31	< 0.62	< 0.62	< 12	< 0.62	< 0.62
8260B	2-Hexanone	591-78-6	UG/L				< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 13	< 0.27	< 0.27	< 5.3	< 0.27	< 0.27
8260B	4-Methyl-2-pentanone (MIBK)	108-10-1	UG/L			2000	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	32 J	< 0.42	0.55 J	< 8.3	< 0.42	< 0.42
8260B	Acetone	67-64-1	UG/L			5500	6.1 UB	< 0.82	< 0.82	< 0.82	< 0.82	5.0 UB	5.0 UB	270	10 UB	5.0 UB	< 16	9.7 UB	5.0 UB
8260B	Benzene	71-43-2	UG/L	5		0.35	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 20	< 0.39	4	8 J	< 0.39	< 0.39
8260B	Bromobenzene	108-86-1	UG/L			23	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 20	< 0.39	< 0.39	< 7.9	< 0.39	< 0.39
8260B	Bromochloromethane	74-97-5	UG/L				< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 18	< 0.37	< 0.37	< 7.4	< 0.37	< 0.37
8260B	Bromodichloromethane	75-27-4	UG/L			0.18	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 18	< 0.37	< 0.37	< 7.4	< 0.37	< 0.37
8260B	Bromoform	75-25-2	UG/L			8.5	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 13	< 0.27	< 0.27	< 5.4	< 0.27	< 0.27
8260B	Bromomethane	74-83-9	UG/L			8.7	< 0.72	< 0.72	< 0.72	< 0.72	< 0.72	< 0.72	< 0.72	< 36	< 0.72	< 0.72	< 14	< 0.72	< 0.72
8260B	Carbon disulfide	75-15-0	UG/L			1000	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 19	< 0.38	< 0.38	< 7.7	< 0.38	< 0.38
8260B	Carbon tetrachloride	56-23-5	UG/L	5		0.17	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 20	< 0.41	< 0.41	< 8.1	< 0.41	< 0.41
8260B	Chlorobenzene	108-90-7	UG/L	100		91	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	89	< 0.33	7.9	310	< 0.33	< 0.33
8260B	Chloroethane	75-00-3	UG/L			3.9	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 22	< 0.45	11	< 9	< 0.45	< 0.45
8260B	Chloroform	67-66-3	UG/L			0.17	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 17	< 0.35	< 0.35	< 7	1.3 UB	1.0 UB
8260B	Chloromethane	74-87-3	UG/L			2.1	0.48 J	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 24	< 0.48	< 0.48	< 9.6	1.7 J	< 0.48
8260B	cis-1,2-Dichloroethene	156-59-2	UG/L	70		61	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 18	< 0.37	< 0.37	< 7.3	< 0.37	< 0.37
8260B	cis-1,3-Dichloropropene	10061-01-5	UG/L			0.4	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 15	< 0.31	< 0.31	< 6.1	< 0.31	< 0.31
8260B	Dibromochloromethane	124-48-1	UG/L			0.13	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 14	< 0.28	< 0.28	< 5.6	< 0.28	< 0.28
8260B	Dibromomethane	74-95-3	UG/L			61	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 20	< 0.41	< 0.41	< 8.1	< 0.41	< 0.41
8260B	Ethylbenzene	100-41-4	UG/L	700		1300	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 21	< 0.42	< 0.42	9.2 J	< 0.42	< 0.42
8260B	Methylene chloride	75-09-2	UG/L	5		4.3	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	3000	< 0.42	< 0.42	< 8.4	< 0.42	< 0.42
8260B	m-Xylene & p-Xylene	136777-61-2	UG/L				< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 41	< 0.83	< 0.83	< 17	< 0.83	< 0.83
8260B	o-Xylene	95-47-6	UG/L			1400	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 19	< 0.39	< 0.39	< 7.7	< 0.39	< 0.39
8260B	Styrene	100-42-5	UG/L	100		1600	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 16	< 0.31	< 0.31	< 6.2	< 0.31	< 0.31
8260B	Tetrachloroethene	127-18-4	UG/L	5		0.11	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 20	< 0.4	< 0.4	< 8	< 0.4	< 0.4
8260B	Toluene	108-88-3	UG/L	1000		2300	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	60	< 0.39	0.43 J	< 7.8	< 0.39	< 0.39
8260B	trans-1,2-Dichloroethene	156-60-5	UG/L	100		110	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 19	< 0.37	< 0.37	< 7.4	< 0.37	< 0.37
8260B	trans-1,3-Dichloropropene	10061-02-6	UG/L			0.4	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 10	< 0.21	< 0.21	< 4.2	< 0.21	< 0.21
8260B	Trichloroethene	79-01-6	UG/L	5		0.028	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 22	< 0.45	< 0.45	< 9	< 0.45	< 0.45
8260B	Trichlorofluoromethane	75-69-4	UG/L			1300	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 24	< 0.47	< 0.47	< 9.5	< 0.47	< 0.47
8260B	Vinyl acetate	108-05-4	UG/L			410	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 15	< 0.29	< 0.29	< 5.9	< 0.29	< 0.29
8260B	Vinyl chloride	75-01-4	UG/L	2		0.015	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 20	< 0.4	< 0.4	< 8	< 0.4	< 0.4
8260B	Xylenes (total)	1330-20-7	UG/L	10000		200	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 60	< 1.2	< 1.2	< 24	< 1.2	< 1.2
Semivolatile Organic Compounds (SVOCs)																			
8270C	1,2,4-Trichlorobenzene	120-82-1	UG/L	70		8.2	< 0.81	< 0.93	< 0.88	< 0.84	< 0.82	< 0.84	< 0.81	7.7 J	< 0.93	< 0.81	5.7 J	< 0.81	< 0.82
8270C	1,2-Dichlorobenzene	95-50-1	UG/L	600		49	< 0.93	< 1.1	< 1	< 0.97	< 0.95	< 0.97	< 0.93	670	< 1.1	38	560	< 0.94	1.5 J
8270C	1,3-Dichlorobenzene	541-73-1	UG/L			15	< 0.95	< 1.1	< 1	< 0.99	< 0.97	< 0.99	< 0.95	< 1	< 1.1	< 0.96	< 0.96	< 0.96	< 0.97
8270C	1,4-Dichlorobenzene	106-46-7	UG/L	75		0.47	< 0.78	< 0.9	< 0.85	< 0.81	< 0.79	< 0.81	< 0.78	11	< 0.9	< 0.78	11	< 0.78	< 0.79
8270C	2,4,5-Trichlorophenol	95-95-4	UG/L			3700	< 0.96	< 1.1	< 1.1	< 1	< 0.98	< 1	< 0.96	< 1.1	< 1.1	< 0.97	< 0.97	< 0.97	< 0.98
8270C	2,4,6-Trichlorophenol	88-06-2	UG/L			6.1	< 1.1	< 1.2	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.2	< 1.1	< 1.1	< 1.1	< 1.1
8270C	2,4-Dichlorophenol	120-83-2	UG/L			110	< 0.99	< 1.1	< 1.1	< 1	< 1	< 1	< 0.99	< 1.1	< 1.1	< 1	2.2 J	< 1	< 1
8270C	2,4-Dimethylphenol	105-67-9	UG/L			730	< 1.8	< 2.1	< 2	< 1.9	< 1.9	< 1.9	< 1.8	8.4 J	< 2.1	< 1.8	< 1.8	< 1.8	< 1.9
8270C	2,4-Dinitrophenol	51-28-5	UG/L			73	< 3.6	< 4.2	< 3.9	< 3.7	< 3.7	< 3.7	< 3.6	< 3.9	< 4.2	< 3.6	< 3.6	< 3.6	< 3.7
8270C	2,4-Dinitrotoluene	121-14-2	UG/L			73	< 2.8	< 3.2	< 3	< 2.9	< 2.8	< 2.9	< 2.8	< 3	< 3.2	< 2.8	< 2.8	< 2.8	< 2.8
8270C	2,6-Dinitrotoluene	606-20-2	UG/L			37	< 0.98	< 1.1	< 1.1	< 1	< 1	< 1	< 0.98	< 1.1	< 1.1	< 1	< 1	< 1	< 1
8270C	2-Chloronaphthalene	91-58-7	UG/L			490	< 1.4	< 1.6	< 1.5	< 1.5	< 1.4	< 1.5	< 1.4	< 1.5	< 1.6	< 1.4	< 1.4	< 1.4	< 1.4
8270C	2-Chlorophenol	95-57-8	UG/L			30	< 1.4	< 1.6	< 1.6	< 1.5	< 1.5	< 1.5	< 1.4	10	< 1.6	< 1.4	3.6 J	< 1.4	< 1.5

Table 10
Fall 2008 Groundwater Sampling Analytical Results
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Primary Drinking Water Std (ug/L)	Secondary Drinking Water Std (ug/L)	TapWater MSSL (ug/l)	1MW-1 9/25/2008	1MW-2 9/26/2008	1MW-3 9/27/2008	1MW-4 9/27/2008	1MW-5 9/27/2008	1MW-6 9/27/2008	1MW-7 9/25/2008	2MW-1 9/26/2008	2MW-2 9/25/2008	2MW-3 9/23/2008	2MW-4 9/24/2008	2MW-5 9/25/2008	2MW-6 9/24/2008
8270C	2-Methylnaphthalene	91-57-6	UG/L				< 0.93	< 1.1	< 1	< 0.97	< 0.95	< 0.97	< 0.93	< 1	< 1.1	< 0.94	< 0.94	< 0.94	< 0.95
8270C	2-Methylphenol	95-48-7	UG/L			1800	< 1.8	< 2	< 1.9	< 1.8	< 1.8	< 1.8	< 1.8	6 J	< 2	< 1.8	< 1.8	< 1.8	< 1.8
8270C	2-Nitroaniline	88-74-4	UG/L			110	< 1.1	< 1.3	< 1.2	< 1.2	< 1.2	< 1.2	< 1.1	< 1.2	< 1.3	< 1.2	< 1.2	< 1.2	< 1.2
8270C	2-Nitrophenol	88-75-5	UG/L				< 1	< 1.2	< 1.1	< 1.1	< 1	< 1.1	< 1	< 1.1	< 1.2	< 1	< 1	< 1	< 1
8270C	3,3'-Dichlorobenzidine	91-94-1	UG/L			0.15	< 1.6	< 1.9	< 1.8	< 1.7	< 1.7	< 1.7	< 1.6	< 1.8	< 1.9	< 1.7 J	< 1.7 J	< 1.7	< 1.7 J
8270C	3,4-Dichloroaniline	95-76-1	UG/L				< 0.98	1.2 J	< 1.1	< 1	< 1	1.2 J	< 0.98	37000	< 1.1	130	17000	< 1	1.8 J
8270C	3-Methylphenol & 4-Methylphenol	65794-96-9	UG/L			180	< 2.5	< 2.9	< 2.7	< 2.6	< 2.5	< 2.6	< 2.5	15 J	< 2.9	< 2.5	3.5 J	< 2.5	< 2.5
8270C	3-Nitroaniline	99-09-2	UG/L				< 1.2	< 1.3	< 1.3	< 1.2	< 1.2	< 1.2	< 1.2	< 1.3	< 1.3	< 1.2 J	< 1.2 J	< 1.2	< 1.2 J
8270C	4,6-Dinitro-2-methylphenol	534-52-1	UG/L				< 3.4	< 3.9	< 3.7	< 3.6	< 3.5	< 3.6	< 3.4	< 3.7	< 3.9	< 3.5	< 3.5	< 3.5	< 3.5
8270C	4-Bromophenyl phenyl ether	101-55-3	UG/L				< 0.9	< 1	< 0.98	< 0.93	< 0.91	< 0.93	< 0.9	< 0.98	< 1	< 0.91	< 0.91	< 0.91	< 0.91
8270C	4-Chloro-3-methylphenol	59-50-7	UG/L				< 1	< 1.2	< 1.1	< 1.1	< 1.1	< 1.1	< 1	< 1.1	< 1.2	< 1	< 1	< 1	< 1.1
8270C	4-Chloroaniline	106-47-8	UG/L			150	< 1.6	< 1.8	< 1.7	< 1.7	< 1.6	< 1.7	< 1.6	120	< 1.8	2.8 J	2100 J	< 1.6	< 1.6 J
8270C	4-Chlorophenyl phenyl ether	7005-72-3	UG/L				< 1.4	< 1.6	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.6	< 1.4	< 1.4	< 1.4	< 1.4
8270C	4-Nitroaniline	100-01-6	UG/L				< 1	< 1.2	< 1.1	< 1.1	< 1.1	< 1.1	< 1	< 1.1	< 1.2	< 1.1	< 1.1	< 1.1	< 1.1
8270C	4-Nitrophenol	100-02-7	UG/L			290	< 3.9	< 4.6	< 4.3	< 4.1	< 4	< 4.1	< 3.9	86	< 4.6	< 4	< 4	< 4	< 4
8270C	Acenaphthene	83-32-9	UG/L			370	< 1.1	< 1.2	< 1.2	< 1.1	< 1.1	< 1.1	< 1.1	< 1.2	< 1.2	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Acenaphthylene	208-96-8	UG/L				< 0.87	< 1	< 0.95	< 0.9	< 0.89	< 0.9	< 0.87	< 0.95	< 1	< 0.88	< 0.88	< 0.88	< 0.89
8270C	Aniline	62-53-3	UG/L			12	< 2	< 2.3	< 2.1	< 2	< 2	< 2	< 2	< 2.1	< 2.3	< 2	2.9 J	< 2	< 2
8270C	Anthracene	120-12-7	UG/L			1800	< 1.1	< 1.3	< 1.2	< 1.1	< 1.1	< 1.1	< 1.1	< 1.2	< 1.3	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Benzo(a)anthracene	56-55-3	UG/L			0.03	< 1.1	< 1.2	< 1.2	< 1.1	< 1.1	< 1.1	< 1.1	< 1.2	< 1.2	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Benzo(a)pyrene	50-32-8	UG/L	0.2		0.003	< 1.1	< 1.2	< 1.2	< 1.1	< 1.1	< 1.1	< 1.1	< 1.2	< 1.2	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Benzo(b)fluoranthene	205-99-2	UG/L			0.03	< 0.76	< 0.87	< 0.83	< 0.79	< 0.77	< 0.79	< 0.76	< 0.83	< 0.87	< 0.76	< 0.76	< 0.76	< 0.77
8270C	Benzo(ghi)perylene	191-24-2	UG/L				< 0.73	< 0.85	< 0.8	< 0.76	< 0.75	< 0.76	< 0.73	< 0.8	< 0.85	< 0.74	< 0.74	< 0.74	< 0.75
8270C	Benzo(k)fluoranthene	207-08-9	UG/L			0.3	< 1.2	< 1.4	< 1.3	< 1.2	< 1.2	< 1.2	< 1.2	< 1.3	< 1.4	< 1.2	< 1.2	< 1.2	< 1.2
8270C	Benzoic acid	65-85-0	UG/L			150000	< 13	< 15	< 14	< 13	< 13	< 13	< 13	< 14	< 15	< 13	< 13	< 13	< 13
8270C	Benzyl alcohol	100-51-6	UG/L			11000	< 1.6	< 1.8	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6	< 1.7	< 1.8	< 1.6	< 1.6	< 1.6	< 1.6
8270C	bis(2-Chloroethoxy)methane	111-91-1	UG/L				< 1.1	< 1.3	< 1.2	< 1.1	< 1.1	< 1.1	< 1.1	< 1.2	< 1.3	< 1.1	< 1.1	< 1.1	< 1.1
8270C	bis(2-Chloroethyl) ether	111-44-4	UG/L			0.0098	< 0.52	< 0.6	< 0.57	< 0.54	< 0.53	< 0.54	< 0.52	< 0.57	< 0.6	34	3.1 J	< 0.53	< 0.53
8270C	bis(2-Chloroisopropyl) ether	108-60-1	UG/L			0.27	< 1.2	< 1.4	< 1.3	< 1.2	< 1.2	< 1.2	< 1.2	< 1.3	< 1.4	< 1.2	< 1.2	< 1.2	< 1.2
8270C	bis(2-Ethylhexyl) phthalate	117-81-7	UG/L	6		4.8	< 2.6	< 3	< 2.9	< 2.7	< 2.7	< 2.7	< 2.6	< 2.9	< 3	< 2.7	< 2.7	< 2.7	< 2.7
8270C	Butyl benzyl phthalate	85-68-7	UG/L			7300	< 0.95	< 1.1	< 1	< 0.99	< 0.97	< 0.99	< 0.95	< 1	< 1.1	< 0.96	< 0.96	< 0.96	< 0.97
8270C	Chrysene	218-01-9	UG/L			3	< 1	< 1.2	< 1.1	< 1.1	< 1.1	< 1.1	< 1	< 1.1	< 1.2	< 1	< 1	< 1	< 1.1
8270C	Dibenz(a,h)anthracene	53-70-3	UG/L			0.003	< 0.97	< 1.1	< 1.1	< 1	< 0.99	< 1	< 0.97	< 1.1	< 1.1	< 0.98	< 0.98	< 0.98	< 0.99
8270C	Dibenzofuran	132-64-9	UG/L			12	< 1	< 1.2	< 1.1	< 1.1	< 1	< 1.1	< 1	< 1.1	< 1.2	< 1	< 1	< 1	< 1
8270C	Diethyl phthalate	84-66-2	UG/L			29000	< 1.4	< 1.6	< 1.5	< 1.5	< 1.4	< 1.5	< 1.4	7.8 J	2 J	< 1.4	1.5 J	< 1.4	< 1.4
8270C	Dimethyl phthalate	131-11-3	UG/L			370000	< 1.2	< 1.4	< 1.3	< 1.3	< 1.2	< 1.3	< 1.2	< 1.3	< 1.4	< 1.2	< 1.2	< 1.2	< 1.2
8270C	Di-n-butyl phthalate	84-74-2	UG/L			3700	< 1.1	< 1.3	< 1.2	< 1.1	< 1.1	< 1.1	< 1.1	< 1.2	< 1.3	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Di-n-octyl phthalate	117-84-0	UG/L				< 1.1	< 1.2	< 1.2	< 1.1	< 1.1	< 1.1	< 1.1	< 1.2	< 1.2	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Dinoseb	88-85-7	UG/L	7		37	< 0.4	< 0.46	< 0.43	< 0.41	< 0.4	< 0.41	< 0.4	7.7 J	7.1 J	< 0.4	< 0.4	27	5.8 J
8270C	Fluoranthene	206-44-0	UG/L			1500	< 0.88	< 1	< 0.97	< 0.92	< 0.9	< 0.92	< 0.88	< 0.97	< 1	< 0.89	< 0.89	< 0.89	< 0.9
8270C	Fluorene	86-73-7	UG/L			240	< 0.97	< 1.1	< 1.1	< 1	< 0.99	< 1	< 0.97	< 1.1	< 1.1	< 0.98	< 0.98	< 0.98	< 0.99
8270C	Hexachlorobenzene	118-74-1	UG/L	1		0.042	< 1.4	< 1.6	< 1.5	< 1.5	< 1.4	< 1.5	< 1.4	< 1.5	< 1.6	< 1.4	< 1.4	< 1.4	< 1.4
8270C	Hexachlorobutadiene	87-68-3	UG/L			0.86	< 1.2	< 1.4	< 1.3	< 1.3	< 1.2	< 1.3	< 1.2	< 1.3	< 1.4	< 1.2	< 1.2	< 1.2	< 1.2
8270C	Hexachlorocyclopentadiene	77-47-4	UG/L	50		220	< 3.3	< 3.8	< 3.6	< 3.4	< 3.3	< 3.4	< 3.3	< 3.6	< 3.8	< 3.3	< 3.3	< 3.3	< 3.3
8270C	Hexachloroethane	67-72-1	UG/L			4.8	< 0.9	< 1	< 0.99	< 0.94	< 0.92	< 0.94	< 0.9	< 0.99	< 1	< 0.91	< 0.91	< 0.91	< 0.92
8270C	Indeno(1,2,3-cd)pyrene	193-39-5	UG/L			0.03	< 1.1	< 1.3	< 1.2	< 1.1	< 1.1	< 1.1	< 1.1	< 1.2	< 1.3	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Isophorone	78-59-1	UG/L			71	< 1.1	< 1.2	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.2	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Naphthalene	91-20-3	UG/L			6.2	< 0.84	< 0.97	< 0.92	< 0.88	< 0.86	< 0.88	< 0.84	< 0.92	< 0.97	< 0.85	< 0.85	< 0.85	< 0.86
8270C	Nitrobenzene	98-95-3	UG/L			3.4	< 1.1	< 1.2	< 1.2	< 1.1	< 1.1	< 1.1	< 1.1	< 1.2	< 1.2	< 1.1	< 1.1	< 1.1	< 1.1
8270C	N-Nitrosodi-n-propylamine	621-64-7	UG/L			0.0096	< 1	< 1.2	< 1.1	< 1	< 1	< 1	< 1	< 1.1	< 1.2	< 1	< 1	< 1	< 1
8270C	N-Nitrosodiphenylamine	86-30-6	UG/L			14	< 0.9	< 1	< 0.98	< 0.94	< 0.92	< 0.94	< 0.9	< 0.98	< 1	< 0.91 J	< 0.91 J	< 0.91	< 0.92 J
8270C	Pentachlorophenol	87-86-5	UG/L	1		0.56	< 5.2	< 6	< 5.7	< 5.4	< 5.3	< 5.4	< 5.2	< 5.7	< 6	< 5.3	< 5.3	< 5.3	< 5.3
8270C	Phenanthrene	85-01-8	UG/L				< 0.96	< 1.1	< 1	< 1	< 0.98	< 1	< 0.96	< 1	< 1.1	< 0.97	< 0.97	< 0.97	< 0.98
8270C	Phenol	108-95-2	UG/L			11000	< 2	< 2.4	< 2.2	< 2.1	< 2.1	< 2.1	< 2	58	< 2.4	< 2.1	< 2.1	< 2.1	< 2.1
8270C	Propanil	709-98-8	UG/L			180	< 0.75	< 0.87	< 0.83	< 0.79	< 0.77	< 0.79	< 0.75	390	< 0.87	< 0.76	49	< 0.76	< 0.77
8270C	Pyrene	129-00-0	UG/L			180	< 0.88	< 1	< 0.96	< 0.92	< 0.9	< 0.92	< 0.88	< 0.96	< 1	< 0.89	< 0.89	< 0.89	< 0.9

Table 10
Fall 2008 Groundwater Sampling Analytical Results
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Primary Drinking Water Std (ug/L)	Secondary Drinking Water Std (ug/L)	TapWater MSSL (ug/l)	2MW-7 9/24/2008	4MW-3 9/25/2008	4MW-4 9/23/2008	9MW-1 9/24/2008	DUP1KAT 9/24/2008	EMW-1 9/25/2008	DUP2 KAT 9/25/2008	EMW-2 9/24/2008	EMW-4 9/25/2008	EMW-6 9/23/2008	EMW-6A 9/23/2008	EMW-6B 9/23/2008	EMW-6C 9/23/2008
	Metals																		
6020	Aluminum	7429-90-5	UG/L		50	37000	< 30.3	< 30.3	< 30.3	< 30.3	< 30.3	36.1 J	37.2 J	870	< 30.3	33.2 J	667	420	3680
6020	Antimony	7440-36-0	UG/L	6		15	1.0 UB	< 0.029	< 0.029	1.0 UB	1.0 UB	< 0.029	< 0.029	0.14 J	< 0.029	1.0 UB	1.0 UB	1.0 UB	1.0 UB
6020	Arsenic	7440-38-2	UG/L	10		0.045	17.6	1.3	20.4	49.7	50.7	1.5	1.5	1.5	20	5.6	6.8	9.9	141
6020	Barium	7440-39-3	UG/L	2000		7300	203	135	82	214	216	88.6	87.7	99.2	290	214	788	252	303
6020	Beryllium	7440-41-7	UG/L	4		73	< 0.023	< 0.023	< 0.023	< 0.023	< 0.023	< 0.023	< 0.023	0.052 J	< 0.023	< 0.023	0.032 J	0.033 J	0.2 J
6020	Cadmium	7440-43-9	UG/L	5		18	< 0.023	0.075 J	0.18 J	0.028 J	0.033 J	0.098 J	0.087 J	0.28 J	< 0.023	0.027 J	0.024 J	0.3 J	0.23 J
6020	Calcium	7440-70-2	UG/L				98500	117000	149000	108000	109000	73200	70700	81800	108000	83600	238000	76000	57900
6020	Chromium	7440-47-3	UG/L	100			2.1	6	2.8	3.8	4.2	7	6.3	18.7	3.1	4.9	12.9	4.1	49.8
6020	Cobalt	7440-48-4	UG/L			730	1.8	0.36 J	0.78 J	1.3	1.4	0.46 J	0.44 J	1	0.2 J	0.38 J	1.1	4	8.2
6020	Copper	7440-50-8	UG/L	1300	1000	1400	1.0 UB	2.6 JH	2.7 JH	1.8 JH	1.8 JH	2.3 JH	2.2 JH	27.2	3.3 JH	1.1 JH	2.1 JH	3.6 JH	12.6
6020	Iron	7439-89-6	UG/L		300	26000	4540	50.0 UB	10700	8140	8770	135	124 JH	1050	3010	5500	12600	1080	15800
6020	Lead	7439-92-1	UG/L	15		15	< 0.05	0.18 J	0.14 J	0.059 J	0.06 J	1.0 UB	1.0 UB	2	1.0 UB	0.38 J	0.76 J	0.74 J	6.1
6020	Magnesium	7439-95-4	UG/L				44500	43800	83800	93400	92600	38000	37400	31300	56900	36400	108000	36400	24900
6020	Manganese	7439-96-5	UG/L		50	1700	869	116	2010	7850	8150	120	113	33.1 JH	356	251	491	2710	3180
6020	Nickel	7440-02-0	UG/L			730	5.3	5.3	13.3	13.1	13.7	9.9	9.4	12.4	18.6	17	35	55.9	64.3
6020	Potassium	7440-09-7	UG/L				1630	1260 J	3250	10100	9960	1200 J	1110 J	2650 J	1510 J	4150	1390	694 J	914 J
6020	Selenium	7782-49-2	UG/L	50		180	0.3 J	1.0 UB	1.2	1.1	0.88 J	1.0 UB	< 0.11	2 JH	1.0 UB	0.28 J	1.1	1.3	0.6 J
6020	Silver	7440-22-4	UG/L		100	180	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
6020	Sodium	7440-23-5	UG/L				12200	33000	234000	120000	123000	93200	91700	23900	177000	29500	49500	160000	158000
6020	Thallium	7440-28-0	UG/L	2		2.6	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	0.075 J	0.12 J
6020	Vanadium	7440-62-2	UG/L			180	< 0.15	2.4	1.7	19.7	20.9	1.3	1.3	3.7	0.36 J	0.22 J	2.3	2	14.7
6020	Zinc	7440-66-6	UG/L		5000	11000	13.3	13.3 JH	13.8	16.6	16.3	14.9 JH	14.7 JH	88.7	20.8 JH	15.2	43.6	22.2	42.6
	Organochlorine Pesticides																		
8081A	4,4'-DDD	72-54-8	UG/L			0.28	< 0.0075 J	< 0.0077	< 0.0075 J	< 0.0072 J	< 0.0073 J	< 0.0077	< 0.0077	< 0.0077	< 0.0077	< 0.007 J	< 0.0072 J	< 0.0073	< 0.0082 J
8081A	4,4'-DDE	72-55-9	UG/L			0.2	< 0.0074 J	< 0.0075	< 0.0073 J	< 0.007 J	< 0.0071 J	< 0.0075	< 0.0075	< 0.0075	0.012 J	< 0.0068 J	< 0.007 J	< 0.0071	< 0.008 J
8081A	4,4'-DDT	50-29-3	UG/L			0.2	< 0.015 J	< 0.015	< 0.014 J	< 0.014 J	< 0.014 J	< 0.015	< 0.015	< 0.015	< 0.015	< 0.013 J	< 0.014 J	< 0.014	< 0.016 J
8081A	Aldrin	309-00-2	UG/L			0.004	< 0.0058 J	< 0.0059	< 0.0057 J	< 0.0055 J	0.012 J	< 0.0059	0.014 J	< 0.0059	< 0.0059	< 0.0054 J	< 0.0055 J	0.095 J	< 0.0063 J
8081A	alpha-BHC	319-84-6	UG/L			0.011	< 0.0052 J	< 0.0053	0.01 J	< 0.005 J	< 0.005 J	< 0.0053	< 0.0053	< 0.0053	< 0.0053	< 0.0048 J	< 0.005 J	0.24	0.08 J
8081A	alpha-Chlordane	5103-71-9	UG/L				< 0.0052 J	< 0.0053	< 0.0051 J	< 0.005 J	< 0.005 J	< 0.0053	< 0.0053	< 0.0053	< 0.0053	< 0.0048 J	0.0098 J	0.11 J	0.041 J
8081A	beta-BHC	319-85-7	UG/L			0.037	< 0.0085 J	< 0.0087	< 0.0084 J	< 0.0082 J	< 0.0083 J	< 0.0087	< 0.0087	< 0.0087	< 0.0087	< 0.0079 J	0.033 J	0.31 J	0.39 J
8081A	Chlordane (technical)	57-74-9	UG/L	2		0.19	< 0.14 J	< 0.14	< 0.14 J	< 0.13 J	< 0.13 J	< 0.14	< 0.14	< 0.14	< 0.14	< 0.13 J	< 0.13 J	< 0.13	< 0.15 J
8081A	delta-BHC	319-86-8	UG/L				< 0.0057 J	< 0.0058	< 0.0056 J	< 0.0055 J	< 0.0055 J	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0053 J	< 0.0055 J	0.18	0.11 J
8081A	Dieldrin	60-57-1	UG/L			0.0042	< 0.0062 J	< 0.0063	< 0.0061 J	< 0.0059 J	< 0.006 J	< 0.0063	< 0.0063	< 0.0063	< 0.0063	< 0.0057 J	< 0.0059 J	0.043 J	< 0.0067 J
8081A	Endosulfan I	959-98-8	UG/L				< 0.0057 J	< 0.0058	< 0.0056 J	< 0.0055 J	< 0.0055 J	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0053 J	< 0.0055 J	< 0.0055	< 0.0061 J
8081A	Endosulfan II	33213-65-9	UG/L				< 0.0069 J	< 0.007	< 0.0068 J	< 0.0066 J	< 0.0066 J	< 0.007	< 0.007	< 0.007	< 0.007	< 0.0064 J	0.0069 J	0.12 J	0.18 J
8081A	Endosulfan sulfate	1031-07-8	UG/L				< 0.0056 J	< 0.0057	< 0.0055 J	< 0.0054 J	< 0.0054 J	< 0.0057	< 0.0057	< 0.0057	< 0.0057	< 0.0052 J	< 0.0054 J	< 0.0054	0.042 J
8081A	Endrin	72-20-8	UG/L	2		11	< 0.0077 J	< 0.0079	< 0.0077 J	< 0.0074 J	< 0.0075 J	< 0.0079	< 0.0079	< 0.0079	< 0.0079	< 0.0072 J	0.0081 J	< 0.0075	< 0.0084 J
8081A	Endrin aldehyde	7421-93-4	UG/L				< 0.0086 J	< 0.0088	< 0.0085 J	< 0.0083 J	< 0.0084 J	< 0.0088	< 0.0088	< 0.0088	< 0.0088	< 0.008 J	< 0.0083 J	< 0.0084	< 0.0093 J
8081A	Endrin ketone	53494-70-5	UG/L				< 0.0069 J	< 0.007	< 0.0068 J	< 0.0066 J	< 0.0066 J	< 0.007	0.0074 J	< 0.007	< 0.007	< 0.0064 J	< 0.0066 J	< 0.0066	< 0.0074 J
8081A	gamma-BHC (Lindane)	58-89-9	UG/L	0.2		0.052	< 0.0068 J	< 0.0069	0.014 J	0.022 J	0.017 J	< 0.0069	< 0.0069	< 0.0069	< 0.0069	< 0.0063 J	0.013 J	< 0.0066	0.095 J
8081A	gamma-Chlordane	5103-74-2	UG/L				< 0.0089 J	< 0.0091	< 0.0088 J	< 0.0086 J	< 0.0086 J	< 0.0091	< 0.0091	< 0.0091	< 0.0091	< 0.0083 J	< 0.0086 J	0.28 J	0.19 J
8081A	Heptachlor	76-44-8	UG/L	0.4		0.015	< 0.0075 J	< 0.0077	< 0.0075 J	< 0.0072 J	< 0.0073 J	0.02 J	0.013 J	< 0.0077	< 0.0077	< 0.007 J	< 0.0072 J	< 0.0073	< 0.0082 J
8081A	Heptachlor epoxide	1024-57-3	UG/L	0.2		0.0074	< 0.0074 J	< 0.0075	< 0.0073 J	< 0.007 J	< 0.0071 J	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0068 J	< 0.007 J	< 0.0071	< 0.008 J
8081A	Methoxychlor	72-43-5	UG/L	40		180	< 0.013 J	< 0.013	< 0.013 J	< 0.012 J	< 0.012 J	0.029 J	0.07 J	< 0.013	< 0.013	< 0.012 J	< 0.012 J	< 0.012	0.023 J
8081A	Toxaphene	8001-35-2	UG/L	3		0.061	< 0.36 J	< 0.37	< 0.36 J	< 0.34 J	< 0.35 J	< 0.37	< 0.37	< 0.37	< 0.37	< 0.33 J	< 0.34 J	< 0.35	< 0.39 J
	Herbicides																		
8151A	Dinoseb	88-85-7	UG/L	7		37	< 0.24	2.3	1.1	2.8 J	2.8 J	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	1.8	1.1 J	< 0.24
	Volatile Organic Compounds (VOCs)																		
8260B	1,1,1-Trichloroethane	71-55-6	UG/L	200		840	< 0.36	< 0.36	< 0.36	< 3.6	< 18	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.6	< 0.36	< 0.36
8260B	1,1,2,2-Tetrachloroethane	79-34-5	UG/L			0.055	< 0.31	< 0.31	< 0.31	< 3.1	< 16	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 3.1	< 0.31	< 0.31
8260B	1,1,2-Trichloroethane	79-00-5	UG/L	5		0.2	< 0.35	0.53 J	< 0.35	< 3.5	< 18	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 3.5	< 0.35	< 0.35
8260B	1,1-Dichloroethane	75-34-3	UG/L			1200	< 0.37	< 0.37	< 0.37	< 3.7	< 19	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 3.7	< 0.37	< 0.37
8260B	1,1-Dichloroethene	75-35-4	UG/L	7		340	< 0.43	< 0.43	< 0.43	< 4.3	< 21	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 4.3	< 0.43	< 0.43

Table 10
Fall 2008 Groundwater Sampling Analytical Results
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Primary Drinking Water Std (ug/L)	Secondary Drinking Water Std (ug/L)	TapWater MSSL (ug/l)	2MW-7 9/24/2008	4MW-3 9/25/2008	4MW-4 9/23/2008	9MW-1 9/24/2008	DUP1KAT 9/24/2008	EMW-1 9/25/2008	DUP2 KAT 9/25/2008	EMW-2 9/24/2008	EMW-4 9/25/2008	EMW-6 9/23/2008	EMW-6A 9/23/2008	EMW-6B 9/23/2008	EMW-6C 9/23/2008
8260B	1,2-Dibromoethane (EDB)	106-93-4	UG/L	0.05		0.0056	< 0.3	< 0.3	< 0.3	< 3	< 15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 3	< 0.3	< 0.3
8260B	1,2-Dichlorobenzene	95-50-1	UG/L	600		49	< 0.43	0.99 J	< 0.43	53 J	35 J	< 0.43	< 0.43	< 0.43	97	< 0.43	6.2 J	81	15
8260B	1,2-Dichloroethane	107-06-2	UG/L	5		0.12	< 0.39	3300	8.5	1500	1200	1.1	1	< 0.39	3.2	< 0.39	220	11	3.2
8260B	1,2-Dichloroethene (total)	540-59-0	UG/L				< 0.73	< 0.73	< 0.73	< 7.3	< 37	< 0.73	< 0.73	< 0.73	< 0.73	< 0.73	< 7.3	< 0.73	< 0.73
8260B	1,2-Dichloropropane	78-87-5	UG/L	5		0.17	< 0.37	2.1	< 0.37	< 3.7	< 19	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 3.7	< 0.37	< 0.37
8260B	1,3-Dichlorobenzene	541-73-1	UG/L			15	< 0.39	13	< 0.39	< 3.9	< 19	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 3.9	< 0.39	< 0.39
8260B	1,4-Dichlorobenzene	106-46-7	UG/L	75		0.47	< 0.38	< 0.38	< 0.38	< 3.8	< 19	< 0.38	< 0.38	< 0.38	1.6	< 0.38	< 3.8	1.5	0.6 J
8260B	2-Butanone (MEK)	78-93-3	UG/L			7100	< 0.84	< 0.84	1.4 J	< 8.4	< 42	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84	< 8.4	< 0.84	< 0.84
8260B	2-Chloroethyl vinyl ether	110-75-8	UG/L				< 0.62	< 0.62	< 0.62	< 6.2	< 31	< 0.62	< 0.62	< 0.62	< 0.62	< 0.62	< 6.2	< 0.62	< 0.62
8260B	2-Hexanone	591-78-6	UG/L				< 0.27	< 0.27	< 0.27	< 2.7	< 13	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 2.7	< 0.27	< 0.27
8260B	4-Methyl-2-pentanone (MIBK)	108-10-1	UG/L			2000	< 0.42	< 0.42	< 0.42	< 4.2	< 21	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 4.2	< 0.42	< 0.42
8260B	Acetone	67-64-1	UG/L			5500	5.0 UB	5.0 UB	5.0 UB	< 8.2	< 41	5.0 UB	5.0 UB	7.6 UB	5.0 UB	5.0 UB	< 8.2	< 0.82	< 0.82
8260B	Benzene	71-43-2	UG/L	5		0.35	< 0.39	< 0.39	< 0.39	< 3.9	< 20	< 0.39	< 0.39	< 0.39	2.4	< 0.39	< 3.9	0.8 J	0.67 J
8260B	Bromobenzene	108-86-1	UG/L			23	< 0.39	< 0.39	< 0.39	< 3.9	< 20	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 3.9	< 0.39	< 0.39
8260B	Bromochloromethane	74-97-5	UG/L				< 0.37	< 0.37	< 0.37	< 3.7	< 18	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 3.7	< 0.37	< 0.37
8260B	Bromodichloromethane	75-27-4	UG/L			0.18	< 0.37	< 0.37	< 0.37	< 3.7	< 18	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 3.7	< 0.37	< 0.37
8260B	Bromoform	75-25-2	UG/L			8.5	< 0.27	< 0.27	< 0.27	< 2.7	< 13	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 2.7	< 0.27	< 0.27
8260B	Bromomethane	74-83-9	UG/L			8.7	< 0.72	< 0.72	< 0.72	< 7.2	< 36	< 0.72	< 0.72	< 0.72	< 0.72	< 0.72	< 7.2	< 0.72	< 0.72
8260B	Carbon disulfide	75-15-0	UG/L			1000	< 0.38	< 0.38	< 0.38	< 3.8	< 19	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 3.8	< 0.38	< 0.38
8260B	Carbon tetrachloride	56-23-5	UG/L	5		0.17	< 0.41	< 0.41	< 0.41	< 4.1	< 20	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 4.1	< 0.41	< 0.41
8260B	Chlorobenzene	108-90-7	UG/L	100		91	< 0.33	< 0.33	1	24	19 J	< 0.33	< 0.33	< 0.33	96	< 0.33	< 3.3	18	10
8260B	Chloroethane	75-00-3	UG/L			3.9	< 0.45	1 J	< 0.45	< 4.5	< 22	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 4.5	< 0.45	< 0.45
8260B	Chloroform	67-66-3	UG/L			0.17	< 0.35	1.0 UB	< 0.35	< 3.5	< 17	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 3.5	< 0.35	< 0.35
8260B	Chloromethane	74-87-3	UG/L			2.1	< 0.48	< 0.48	< 0.48	< 4.8	< 24	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 4.8	< 0.48	< 0.48
8260B	cis-1,2-Dichloroethene	156-59-2	UG/L	70		61	< 0.37	< 0.37	< 0.37	< 3.7	< 18	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 3.7	0.5 J	< 0.37
8260B	cis-1,3-Dichloropropene	10061-01-5	UG/L			0.4	< 0.31	< 0.31	< 0.31	< 3.1	< 15	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 3.1	< 0.31	< 0.31
8260B	Dibromochloromethane	124-48-1	UG/L			0.13	< 0.28	< 0.28	< 0.28	< 2.8	< 14	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 2.8	< 0.28	< 0.28
8260B	Dibromomethane	74-95-3	UG/L			61	< 0.41	< 0.41	< 0.41	< 4.1	< 20	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 4.1	< 0.41	< 0.41
8260B	Ethylbenzene	100-41-4	UG/L	700		1300	< 0.42	< 0.42	< 0.42	< 4.2	< 21	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 4.2	1.5	3.7
8260B	Methylene chloride	75-09-2	UG/L	5		4.3	< 0.42	0.8 J	< 0.42	< 4.2	< 21	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 4.2	< 0.42	< 0.42
8260B	m-Xylene & p-Xylene	136777-61-2	UG/L				< 0.83	< 0.83	< 0.83	< 8.3	< 41	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 8.3	< 0.83	< 0.83
8260B	o-Xylene	95-47-6	UG/L			1400	< 0.39	< 0.39	< 0.39	< 3.9	< 19	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 3.9	< 0.39	< 0.39
8260B	Styrene	100-42-5	UG/L	100		1600	< 0.31	< 0.31	< 0.31	< 3.1	< 16	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 3.1	< 0.31	< 0.31
8260B	Tetrachloroethene	127-18-4	UG/L	5		0.11	< 0.4	< 0.4	< 0.4	< 4	< 20	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 4	< 0.4	< 0.4
8260B	Toluene	108-88-3	UG/L	1000		2300	< 0.39	< 0.39	< 0.39	< 3.9	< 20	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 3.9	< 0.39	< 0.39
8260B	trans-1,2-Dichloroethene	156-60-5	UG/L	100		110	< 0.37	< 0.37	< 0.37	< 3.7	< 19	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 3.7	< 0.37	< 0.37
8260B	trans-1,3-Dichloropropene	10061-02-6	UG/L			0.4	< 0.21	< 0.21	< 0.21	< 2.1	< 10	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 2.1	< 0.21	< 0.21
8260B	Trichloroethene	79-01-6	UG/L	5		0.028	< 0.45	< 0.45	< 0.45	< 4.5	< 22	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 4.5	< 0.45	< 0.45
8260B	Trichlorofluoromethane	75-69-4	UG/L			1300	< 0.47	< 0.47	< 0.47	< 4.7	< 24	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 4.7	< 0.47	< 0.47
8260B	Vinyl acetate	108-05-4	UG/L			410	< 0.29	< 0.29	< 0.29	< 2.9	< 15	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 2.9	< 0.29	< 0.29
8260B	Vinyl chloride	75-01-4	UG/L	2		0.015	< 0.4	< 0.4	< 0.4	< 4	< 20	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 4	< 0.4	< 0.4
8260B	Xylenes (total)	1330-20-7	UG/L	10000		200	< 1.2	< 1.2	< 1.2	< 12	< 60	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 12	< 1.2	< 1.2
Semivolatile Organic Compounds (SVOCs)																			
8270C	1,2,4-Trichlorobenzene	120-82-1	UG/L	70		8.2	< 0.81	1.6 J	< 0.83	< 0.81	< 0.81	< 0.82	< 0.81	< 0.81	< 0.82	< 0.83	< 0.84	< 0.83	< 0.84
8270C	1,2-Dichlorobenzene	95-50-1	UG/L	600		49	< 0.93	< 0.94	< 0.96	35	36	< 0.95	< 0.94	< 0.93	54	< 0.96	< 0.97	40	10
8270C	1,3-Dichlorobenzene	541-73-1	UG/L			15	< 0.95	90	< 0.98	< 0.95	< 0.95	< 0.97	< 0.96	< 0.95	< 0.97	< 0.98	< 0.99	< 0.98	< 0.99
8270C	1,4-Dichlorobenzene	106-46-7	UG/L	75		0.47	< 0.78	< 0.78	< 0.8	1 J	1 J	< 0.79	< 0.78	< 0.78	< 0.79	< 0.8	< 0.81	< 0.8	< 0.81
8270C	2,4,5-Trichlorophenol	95-95-4	UG/L			3700	< 0.96	< 0.97	< 0.99	< 0.96	< 0.96	< 0.98	< 0.97	< 0.96	< 0.98	< 0.99	< 1	< 0.99	< 1
8270C	2,4,6-Trichlorophenol	88-06-2	UG/L			6.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	2,4-Dichlorophenol	120-83-2	UG/L			110	< 0.99	39	< 1	< 0.99	< 0.99	< 1	< 1	< 0.99	< 1	< 1	< 1	< 1	< 1
8270C	2,4-Dimethylphenol	105-67-9	UG/L			730	< 1.8	< 1.8	< 1.9	< 1.8	< 1.8	< 1.9	< 1.8	< 1.8	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9
8270C	2,4-Dinitrophenol	51-28-5	UG/L			73	< 3.6	< 3.6	< 3.7	< 3.6	< 3.6	< 3.7	< 3.6	< 3.6	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7
8270C	2,4-Dinitrotoluene	121-14-2	UG/L			73	< 2.8	< 2.8	< 2.9	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.9	< 2.9	< 2.9	< 2.9
8270C	2,6-Dinitrotoluene	606-20-2	UG/L			37	< 0.98	< 1	< 1	< 0.98	< 0.98	< 1	< 1	< 0.98	< 1	< 1	< 1	< 1	< 1
8270C	2-Chloronaphthalene	91-58-7	UG/L			490	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.4	< 1.5
8270C	2-Chlorophenol	95-57-8	UG/L			30	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5

Table 10
Fall 2008 Groundwater Sampling Analytical Results
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Primary Drinking Water Std (ug/L)	Secondary Drinking Water Std (ug/L)	TapWater MSSL (ug/l)	2MW-7 9/24/2008	4MW-3 9/25/2008	4MW-4 9/23/2008	9MW-1 9/24/2008	DUP1KAT 9/24/2008	EMW-1 9/25/2008	DUP2 KAT 9/25/2008	EMW-2 9/24/2008	EMW-4 9/25/2008	EMW-6 9/23/2008	EMW-6A 9/23/2008	EMW-6B 9/23/2008	EMW-6C 9/23/2008
8270C	2-Methylnaphthalene	91-57-6	UG/L				< 0.93	< 0.94	< 0.96	< 0.93	< 0.93	< 0.95	< 0.94	< 0.93	< 0.95	< 0.96	< 0.97	< 0.96	< 0.97
8270C	2-Methylphenol	95-48-7	UG/L			1800	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
8270C	2-Nitroaniline	88-74-4	UG/L			110	< 1.1	< 1.2	< 1.2	< 1.1	< 1.1	< 1.2	< 1.2	< 1.1	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
8270C	2-Nitrophenol	88-75-5	UG/L				< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1.1	< 1	< 1.1
8270C	3,3'-Dichlorobenzidine	91-94-1	UG/L			0.15	< 1.6 J	< 1.7	< 1.7 J	< 1.6 J	< 1.6 J	< 1.7	< 1.7	< 1.6	< 1.7	< 1.7 J	< 1.7 J	< 1.7 J	< 1.7 J
8270C	3,4-Dichloroaniline	95-76-1	UG/L				< 0.98	< 1	3 J	68	58	< 1	< 1	< 0.98	56	1.3 J	350	59000	17000
8270C	3-Methylphenol & 4-Methylphenol	65794-96-9	UG/L			180	< 2.5	< 2.5	< 2.6	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.6	< 2.6	< 2.6	< 2.6
8270C	3-Nitroaniline	99-09-2	UG/L				< 1.2 J	< 1.2	< 1.2 J	< 1.2 J	< 1.2 J	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2 J	< 1.2 J	< 1.2 J	< 1.2 J
8270C	4,6-Dinitro-2-methylphenol	534-52-1	UG/L				< 3.4	< 3.5	< 3.5	< 3.4	< 3.4	< 3.5	< 3.5	< 3.4	< 3.5	< 3.5	< 3.6	< 3.5	< 3.6
8270C	4-Bromophenyl phenyl ether	101-55-3	UG/L				< 0.9	< 0.91	< 0.92	< 0.9	< 0.9	< 0.91	< 0.91	< 0.9	< 0.91	< 0.92	< 0.93	< 0.92	< 0.93
8270C	4-Chloro-3-methylphenol	59-50-7	UG/L				< 1	< 1	< 1.1	< 1	< 1	< 1.1	< 1	< 1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	4-Chloroaniline	106-47-8	UG/L			150	< 1.6 J	< 1.6	1.6 J	61 J	56 J	< 1.6	< 1.6	< 1.6	340	< 1.6 J	800 J	10000 J	4800 J
8270C	4-Chlorophenyl phenyl ether	7005-72-3	UG/L				< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
8270C	4-Nitroaniline	100-01-6	UG/L				< 1	< 1.1	< 1.1	< 1	< 1	< 1.1	< 1.1	< 1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	4-Nitrophenol	100-02-7	UG/L			290	< 3.9	< 4	< 4.1	< 3.9	< 3.9	< 4	< 4	< 3.9	< 4	< 4.1	< 4.1	< 4.1	< 4.1
8270C	Acenaphthene	83-32-9	UG/L			370	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Acenaphthylene	208-96-8	UG/L				< 0.87	< 0.88	< 0.9	< 0.87	< 0.87	< 0.89	< 0.88	< 0.87	< 0.89	< 0.9	< 0.9	< 0.9	< 0.9
8270C	Aniline	62-53-3	UG/L			12	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	2.6 J	3.5 J	< 2
8270C	Anthracene	120-12-7	UG/L			1800	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Benzo(a)anthracene	56-55-3	UG/L			0.03	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Benzo(a)pyrene	50-32-8	UG/L	0.2		0.003	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Benzo(b)fluoranthene	205-99-2	UG/L			0.03	< 0.76	< 0.76	< 0.78	< 0.76	< 0.76	< 0.77	< 0.76	< 0.76	< 0.77	< 0.78	< 0.79	< 0.78	< 0.79
8270C	Benzo(ghi)perylene	191-24-2	UG/L				< 0.73	< 0.74	< 0.75	< 0.73	< 0.73	< 0.75	< 0.74	< 0.73	< 0.75	< 0.75	< 0.76	< 0.75	< 0.76
8270C	Benzo(k)fluoranthene	207-08-9	UG/L			0.3	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
8270C	Benzoic acid	65-85-0	UG/L			150000	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13
8270C	Benzyl alcohol	100-51-6	UG/L			11000	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6
8270C	bis(2-Chloroethoxy)methane	111-91-1	UG/L				< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	bis(2-Chloroethyl) ether	111-44-4	UG/L			0.0098	< 0.52	1.1 J	9.1 J	< 0.52	< 0.52	< 0.53	< 0.53	< 0.52	< 0.53	< 0.54	< 0.54	< 0.54	< 0.54
8270C	bis(2-Chloroisopropyl) ether	108-60-1	UG/L			0.27	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
8270C	bis(2-Ethylhexyl) phthalate	117-81-7	UG/L	6		4.8	< 2.6	< 2.7	< 2.7	< 2.6	< 2.6	< 2.7	< 2.7	< 2.6	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7
8270C	Butyl benzyl phthalate	85-68-7	UG/L			7300	< 0.95	< 0.96	< 0.98	< 0.95	< 0.95	< 0.97	< 0.96	< 0.95	< 0.97	< 0.98	< 0.99	< 0.98	< 0.99
8270C	Chrysene	218-01-9	UG/L			3	< 1	< 1	< 1.1	< 1	< 1	< 1.1	< 1	< 1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Dibenz(a,h)anthracene	53-70-3	UG/L			0.003	< 0.97	< 0.98	< 1	< 0.97	< 0.97	< 0.99	< 0.98	< 0.97	< 0.99	< 1	< 1	< 1	< 1
8270C	Dibenzofuran	132-64-9	UG/L			12	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1.1	< 1	< 1.1
8270C	Diethyl phthalate	84-66-2	UG/L			29000	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5
8270C	Dimethyl phthalate	131-11-3	UG/L			370000	< 1.2	< 1.2	< 1.3	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.3	< 1.3	< 1.3	< 1.3
8270C	Di-n-butyl phthalate	84-74-2	UG/L			3700	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Di-n-octyl phthalate	117-84-0	UG/L				< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Dinoseb	88-85-7	UG/L	7		37	< 0.4	6.8 J	< 0.41	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.41	< 0.41	< 0.41	< 0.41
8270C	Fluoranthene	206-44-0	UG/L			1500	< 0.88	< 0.89	< 0.91	< 0.88	< 0.88	< 0.9	< 0.89	< 0.88	< 0.9	< 0.91	< 0.92	< 0.91	< 0.92
8270C	Fluorene	86-73-7	UG/L			240	< 0.97	< 0.98	< 1	< 0.97	< 0.97	< 0.99	< 0.98	< 0.97	< 0.99	< 1	< 1	< 1	< 1
8270C	Hexachlorobenzene	118-74-1	UG/L	1		0.042	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5
8270C	Hexachlorobutadiene	87-68-3	UG/L			0.86	< 1.2	< 1.2	< 1.3	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.3	< 1.3	< 1.3	< 1.3
8270C	Hexachlorocyclopentadiene	77-47-4	UG/L	50		220	< 3.3	< 3.3	< 3.4	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.4	< 3.4	< 3.4	< 3.4
8270C	Hexachloroethane	67-72-1	UG/L			4.8	< 0.9	< 0.91	< 0.93	< 0.9	< 0.9	< 0.92	< 0.91	< 0.9	< 0.92	< 0.93	< 0.94	< 0.93	< 0.94
8270C	Indeno(1,2,3-cd)pyrene	193-39-5	UG/L			0.03	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Isophorone	78-59-1	UG/L			71	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Naphthalene	91-20-3	UG/L			6.2	< 0.84	< 0.85	< 0.87	< 0.84	< 0.84	< 0.86	< 0.85	< 0.84	< 0.86	< 0.87	< 0.88	< 0.87	< 0.88
8270C	Nitrobenzene	98-95-3	UG/L			3.4	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	N-Nitrosodi-n-propylamine	621-64-7	UG/L			0.0096	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
8270C	N-Nitrosodiphenylamine	86-30-6	UG/L			14	< 0.9 J	< 0.91 J	< 0.93 J	< 0.9 J	< 0.9 J	< 0.92	< 0.91	< 0.9	< 0.92	< 0.93 J	< 0.94 J	< 0.93 J	< 0.94 J
8270C	Pentachlorophenol	87-86-5	UG/L	1		0.56	< 5.2	< 5.3	< 5.4	< 5.2	< 5.2	< 5.3	< 5.3	< 5.2	< 5.3	< 5.4	< 5.4	< 5.4	< 5.4
8270C	Phenanthrene	85-01-8	UG/L				< 0.96	< 0.97	< 0.99	< 0.96	< 0.96	< 0.98	< 0.97	< 0.96	< 0.98	< 0.99	< 1	< 0.99	< 1
8270C	Phenol	108-95-2	UG/L			11000	< 2	< 2.1	< 2.1	< 2	< 2	< 2.1	< 2.1	< 2	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1
8270C	Propanil	709-98-8	UG/L			180	< 0.75	< 0.76	< 0.78	< 0.75	< 0.75	< 0.77	< 0.76	< 0.75	2.2 J	< 0.78	< 0.79	0.79 J	< 0.79
8270C	Pyrene	129-00-0	UG/L			180	< 0.88	< 0.89	< 0.91	< 0.88	< 0.88	< 0.9	< 0.89	< 0.88	< 0.9	< 0.91	< 0.92	< 0.91	< 0.92

Table 10
Fall 2008 Groundwater Sampling Analytical Results
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Primary Drinking Water Std (ug/L)	Secondary Drinking Water Std (ug/L)	TapWater MSSL (ug/l)	EMW-7 9/25/2008	MW-10 9/24/2008	MW-13 9/23/2008	MW-15 9/23/2008	MW-16 9/26/2008	MW-17 9/23/2008	MW-18 9/26/2008	MW-22MA 9/28/2008	MW-22LA 9/28/2008	MW-23 9/24/2008	MW-25MA 9/27/2008	DUP4KAT 9/27/2008	MW-25LA 9/27/2008
	Metals																		
6020	Aluminum	7429-90-5	UG/L		50	37000	98.3	61.7	51.7	100	78800	< 30.3	10600	4180	1300	517	155	195	567
6020	Antimony	7440-36-0	UG/L	6		15	0.17 J	0.91 J	1.0 UB	1.0 UB	1.0 UB	1.0 UB	0.049 J	1.0 UB	1.0 UB	< 0.029	1.0 UB	1.0 UB	< 0.029
6020	Arsenic	7440-38-2	UG/L	10		0.045	5.7	1.6	18.9	30.7	6.2	4.2	3.7	6	1	1.4	1.1	1.1	4.9
6020	Barium	7440-39-3	UG/L	2000		7300	177	27	208	278	17.7	189	18.3	177	316	162	162	165	169
6020	Beryllium	7440-41-7	UG/L	4		73	< 0.023	0.054 J	0.042 J	< 0.023	8.9	< 0.023	3.3	0.28 J	0.14 J	0.044 J	< 0.023	0.046 J	0.074 J
6020	Cadmium	7440-43-9	UG/L	5		18	0.057 J	3.3	0.036 J	< 0.023	7	< 0.023	15.7	0.071 J	< 0.023	< 0.023	< 0.023	0.024 J	< 0.023
6020	Calcium	7440-70-2	UG/L				144000	234000	118000	125000	402000	109000	522000	107000	115000	73900	80200	80300	78200
6020	Chromium	7440-47-3	UG/L	100			7.7	< 0.56	9.7	4.4	177	2.6	5.5	7	2	7.4	< 0.56	0.58 J	< 0.56
6020	Cobalt	7440-48-4	UG/L			730	1.2	43.8	1.4	0.74 J	184	0.55 J	172	2.4	0.57 J	1.6	0.57 J	0.6 J	0.32 J
6020	Copper	7440-50-8	UG/L	1300	1000	1400	1.3 JH	2.3 JH	1.6 JH	0.81 J	42.3	1.0 UB	224	5.1	1.2	1.3 JH	0.42 J	0.49 J	0.35 J
6020	Iron	7439-89-6	UG/L		300	26000	3370	1290	6940	9720	2290	9080	2410	11700	15500	4230	1690	1740	8480
6020	Lead	7439-92-1	UG/L	15		15	1.0 UB	0.22 J	0.42 J	0.44 J	5.5	0.098 J	11.5	4.3	1.8	1.1	0.32 J	0.33 J	1
6020	Magnesium	7439-95-4	UG/L				63900	74100	54000	50300	31300	42500	168000	46300	49700	33500	29700	29500	35600
6020	Manganese	7439-96-5	UG/L		50	1700	325	54000	268	841	26200	411	192000	786	936	294	301	307	1080
6020	Nickel	7440-02-0	UG/L			730	15	94.4	9.9	10.8	313	10.7	138	8.3	4.6	7.5	2.4	2.4	1.8
6020	Potassium	7440-09-7	UG/L				2080 J	9310 J	2430	2050	6150 J	2470	10200	2640 J	3130 J	1410	2800 J	2810 J	1990 J
6020	Selenium	7782-49-2	UG/L	50		180	1.8 JH	1.0 UB	0.16 J	0.66 J	16.5	< 0.11	6.0	1	1.1	0.25 J	1.2	0.95 J	< 0.11
6020	Silver	7440-22-4	UG/L		100	180	< 0.04	< 0.04	< 0.04	< 0.04	0.07 J	0.041 J	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
6020	Sodium	7440-23-5	UG/L				59000	239000	39800	137000	2890000	21600	1070000	25000	211000	11000	9790 J	9650 J	14000
6020	Thallium	7440-28-0	UG/L	2		2.6	< 0.019	0.052 J	0.027 J	< 0.019	2.2	< 0.019	1.1	0.16 J	0.033 J	< 0.019	< 0.019	0.02 J	< 0.019
6020	Vanadium	7440-62-2	UG/L			180	1.2	0.47 J	0.78 J	0.68 J	< 0.15	0.33 J	35.3	8.4	1.2	1.6	0.4 J	0.48 J	< 0.15
6020	Zinc	7440-66-6	UG/L		5000	11000	13.4 JH	22	14.2	17.9	481	13.3	137	24.1	16.4	18.8	6.4 J	6.9 J	7.9 J
	Organochlorine Pesticides																		
8081A	4,4'-DDD	72-54-8	UG/L			0.28	< 0.0077	< 0.0077	< 0.0076 J	< 0.0075 J	< 3.8	< 0.0075 J	< 0.0077	< 0.0077 J	< 0.0077 J	< 0.0074 J	< 0.0077 J	< 0.0077 J	< 0.0077 J
8081A	4,4'-DDE	72-55-9	UG/L			0.2	< 0.0075	< 0.0075	< 0.0074 J	< 0.0073 J	< 3.8	< 0.0073 J	< 0.0075	< 0.0075 J	< 0.0075 J	< 0.0072 J	< 0.0075 J	< 0.0075 J	< 0.0075 J
8081A	4,4'-DDT	50-29-3	UG/L			0.2	< 0.015	< 0.015	< 0.015 J	< 0.014 J	< 7.4	< 0.014 J	< 0.015	< 0.015 J	< 0.015 J	< 0.014 J	< 0.015 J	< 0.015 J	< 0.015 J
8081A	Aldrin	309-00-2	UG/L			0.004	< 0.0059	0.03 J	< 0.0058 J	< 0.0057 J	< 3	< 0.0057 J	< 0.0059	< 0.0059 J	< 0.0059 J	< 0.0057 J	< 0.0059 J	< 0.0059 J	< 0.0059 J
8081A	alpha-BHC	319-84-6	UG/L			0.011	< 0.0053	0.014 J	< 0.0052 J	0.006 J	< 2.6	< 0.0051 J	< 0.0053	< 0.0053 J	< 0.0053 J	< 0.0051 J	< 0.0053 J	< 0.0053 J	< 0.0053 J
8081A	alpha-Chlordane	5103-71-9	UG/L				< 0.0053	0.018 J	< 0.0052 J	< 0.0051 J	< 2.6	< 0.0051 J	< 0.0053	< 0.0053 J	< 0.0053 J	< 0.0051 J	< 0.0053 J	< 0.0053 J	< 0.0053 J
8081A	beta-BHC	319-85-7	UG/L			0.037	< 0.0087	0.071 J	< 0.0086 J	< 0.0084 J	< 4.4	< 0.0084 J	< 0.0087	< 0.0087 J	< 0.0087 J	< 0.0084 J	< 0.0087 J	< 0.0087 J	< 0.0087 J
8081A	Chlordane (technical)	57-74-9	UG/L	2		0.19	< 0.14	< 0.14	< 0.14 J	< 0.14 J	< 70	< 0.14 J	< 0.14	< 0.14 J	< 0.14 J	< 0.13 J	< 0.14 J	< 0.14 J	< 0.14 J
8081A	delta-BHC	319-86-8	UG/L				< 0.0058	< 0.0058	< 0.0057 J	< 0.0056 J	< 2.9	< 0.0056 J	< 0.0058	< 0.0058 J	< 0.0058 J	< 0.0056 J	< 0.0058 J	0.050 UBJ	0.050 UBJ
8081A	Dieldrin	60-57-1	UG/L			0.0042	< 0.0063	< 0.0063	< 0.0062 J	< 0.0061 J	< 3.2	< 0.0061 J	0.45 J	< 0.0063 J	< 0.0063 J	< 0.006 J	< 0.0063 J	< 0.0063 J	< 0.0063 J
8081A	Endosulfan I	959-98-8	UG/L				< 0.0058	< 0.0058	< 0.0057 J	< 0.0056 J	< 2.9	< 0.0056 J	< 0.0058	< 0.0058 J	< 0.0058 J	< 0.0056 J	< 0.0058 J	< 0.0058 J	< 0.0058 J
8081A	Endosulfan II	33213-65-9	UG/L				< 0.007	< 0.007	< 0.0069 J	< 0.0068 J	< 3.5	< 0.0068 J	< 0.007	< 0.007 J	< 0.007 J	< 0.0067 J	< 0.007 J	< 0.007 J	< 0.007 J
8081A	Endosulfan sulfate	1031-07-8	UG/L				< 0.0057	< 0.0057	< 0.0056 J	< 0.0055 J	< 2.8	< 0.0055 J	< 0.0057	< 0.0057 J	< 0.0057 J	< 0.0055 J	< 0.0057 J	< 0.0057 J	< 0.0057 J
8081A	Endrin	72-20-8	UG/L	2		11	< 0.0079	< 0.0079	< 0.0078 J	< 0.0077 J	< 4	< 0.0077 J	< 0.0079	< 0.0079 J	< 0.0079 J	< 0.0076 J	< 0.0079 J	< 0.0079 J	< 0.0079 J
8081A	Endrin aldehyde	7421-93-4	UG/L				< 0.0088	< 0.0088	< 0.0087 J	< 0.0085 J	< 4.4	< 0.0085 J	< 0.0088	< 0.0088 J	< 0.0088 J	< 0.0084 J	< 0.0088 J	< 0.0088 J	< 0.0088 J
8081A	Endrin ketone	53494-70-5	UG/L				< 0.007	< 0.007	< 0.0069 J	< 0.0068 J	< 3.5	< 0.0068 J	< 0.007	< 0.007 J	< 0.007 J	< 0.0067 J	< 0.007 J	< 0.007 J	< 0.007 J
8081A	gamma-BHC (Lindane)	58-89-9	UG/L	0.2		0.052	< 0.0069	< 0.0069	0.017 J	0.052 J	110 J	< 0.0067 J	< 0.0069	< 0.0069 J	< 0.0069 J	< 0.0066 J	< 0.0069 J	< 0.0069 J	< 0.0069 J
8081A	gamma-Chlordane	5103-74-2	UG/L				< 0.0091	< 0.0091	< 0.009 J	< 0.0088 J	< 4.6	< 0.0088 J	< 0.0091	< 0.0091 J	< 0.0091 J	< 0.0087 J	< 0.0091 J	< 0.0091 J	< 0.0091 J
8081A	Heptachlor	76-44-8	UG/L	0.4		0.015	< 0.0077	< 0.0077	< 0.0076 J	< 0.0075 J	< 3.8	< 0.0075 J	< 0.0077	< 0.0077 J	< 0.0077 J	< 0.0074 J	< 0.0077 J	< 0.0077 J	< 0.0077 J
8081A	Heptachlor epoxide	1024-57-3	UG/L	0.2		0.0074	< 0.0075	< 0.0075	< 0.0074 J	< 0.0073 J	< 3.8	< 0.0073 J	< 0.0075	< 0.0075 J	< 0.0075 J	< 0.0072 J	< 0.0075 J	< 0.0075 J	< 0.0075 J
8081A	Methoxychlor	72-43-5	UG/L	40		180	< 0.013	< 0.013	< 0.013 J	< 0.013 J	< 6.5	< 0.013 J	< 0.013	0.018 J	< 0.013 J	< 0.012 J	< 0.013 J	< 0.013 J	< 0.013 J
8081A	Toxaphene	8001-35-2	UG/L	3		0.061	< 0.37	< 0.37	< 0.36 J	< 0.36 J	< 180	< 0.36 J	< 0.37	< 0.37 J	< 0.37 J	< 0.35 J	< 0.37 J	< 0.37 J	< 0.37 J
	Herbicides																		
8151A	Dinoseb	88-85-7	UG/L	7		37	< 0.24	25	< 0.24	< 0.24	190 J	< 0.24	1400	1	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24
	Volatile Organic Compounds (VOCs)																		
8260B	1,1,1-Trichloroethane	71-55-6	UG/L	200		840	< 7.2	< 9	< 0.36	< 0.36	< 36	< 0.36	< 1800	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36
8260B	1,1,2,2-Tetrachloroethane	79-34-5	UG/L			0.055	< 6.2	< 7.8	< 0.31	< 0.31	< 31	< 0.31	< 1600	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31
8260B	1,1,2-Trichloroethane	79-00-5	UG/L	5		0.2	< 7	< 8.8	< 0.35	< 0.35	< 35	< 0.35	< 1800	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35
8260B	1,1-Dichloroethane	75-34-3	UG/L			1200	< 7.5	< 9.4	< 0.37	< 0.37	< 37	< 0.37	< 1900	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37
8260B	1,1-Dichloroethene	75-35-4	UG/L	7		340	< 8.5	< 11	1.3	< 0.43	< 43	< 0.43	< 2100	0.87 J	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43

Table 10
Fall 2008 Groundwater Sampling Analytical Results
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Primary Drinking Water Std (ug/L)	Secondary Drinking Water Std (ug/L)	TapWater MSSL (ug/l)	EMW-7 9/25/2008	MW-10 9/24/2008	MW-13 9/23/2008	MW-15 9/23/2008	MW-16 9/26/2008	MW-17 9/23/2008	MW-18 9/26/2008	MW-22MA 9/28/2008	MW-22LA 9/28/2008	MW-23 9/24/2008	MW-25MA 9/27/2008	DUP4KAT 9/27/2008	MW-25LA 9/27/2008
8260B	1,2-Dibromoethane (EDB)	106-93-4	UG/L	0.05		0.0056	< 6	< 7.5	< 0.3	< 0.3	< 30	< 0.3	< 1500	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
8260B	1,2-Dichlorobenzene	95-50-1	UG/L	600		49	< 8.7	< 11	< 0.43	0.88 J	830	< 0.43	< 2200	1.1	0.79 J	< 0.43	< 0.43	< 0.43	< 0.43
8260B	1,2-Dichloroethane	107-06-2	UG/L	5		0.12	1600	740	1100	< 0.78	69 J	9	120000	120	27	< 0.39	< 0.39	< 0.39	< 0.39
8260B	1,2-Dichloroethene (total)	540-59-0	UG/L				< 15	< 18	< 0.73	< 0.73	< 73	< 0.73	< 3700	< 0.73	< 0.73	< 0.73	< 0.73	< 0.73	< 0.73
8260B	1,2-Dichloropropane	78-87-5	UG/L	5		0.17	< 7.5	< 9.3	< 0.37	< 0.37	< 37	< 0.37	< 1900	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37
8260B	1,3-Dichlorobenzene	541-73-1	UG/L			15	< 7.7	< 9.6	< 0.39	< 0.39	< 39	< 0.39	< 1900	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39
8260B	1,4-Dichlorobenzene	106-46-7	UG/L	75		0.47	< 7.5	< 9.4	< 0.38	0.96 J	< 38	< 0.38	< 1900	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38
8260B	2-Butanone (MEK)	78-93-3	UG/L			7100	< 17	< 21	< 0.84	< 0.84	15000	< 0.84	< 4200	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84
8260B	2-Chloroethyl vinyl ether	110-75-8	UG/L				< 12	< 16	< 0.62	< 0.62	< 62	< 0.62	< 3100	< 0.62	< 0.62	< 0.62	< 0.62	< 0.62	< 0.62 J
8260B	2-Hexanone	591-78-6	UG/L				< 5.3	< 6.7	< 0.27	< 0.27	< 27	< 0.27	< 1300	2.9 J	< 0.27	< 0.27	1.9 J	1.8 J	1.2 J
8260B	4-Methyl-2-pentanone (MIBK)	108-10-1	UG/L			2000	< 0.42	< 10	< 0.42	1.2 J	< 42	< 0.42	< 2100	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42
8260B	Acetone	67-64-1	UG/L			5500	< 16	< 20	5.0 UB	5.0 UB	5300	< 0.82	< 4100	5.0 UB	48 UB	5.0 UB	5.0 UB	5.0 UB	5.0 UB
8260B	Benzene	71-43-2	UG/L	5		0.35	< 7.8	< 9.8	1.4	21	< 39	< 0.39	< 2000	< 0.39	7	< 0.39	< 0.39	< 0.39	< 0.39
8260B	Bromobenzene	108-86-1	UG/L			23	< 7.9	< 9.9	< 0.39	< 0.39	< 39	< 0.39	< 2000	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39
8260B	Bromochloromethane	74-97-5	UG/L				< 7.4	< 9.2	< 0.37	< 0.37	< 37	< 0.37	< 1800	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37
8260B	Bromodichloromethane	75-27-4	UG/L			0.18	< 7.4	< 9.2	< 0.37	< 0.37	< 37	< 0.37	< 1800	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37
8260B	Bromoform	75-25-2	UG/L			8.5	< 5.4	< 6.7	< 0.27	< 0.27	< 27	< 0.27	< 1300	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27
8260B	Bromomethane	74-83-9	UG/L			8.7	< 14	< 18	< 0.72	< 0.72	< 72	< 0.72	< 3600	< 0.72	< 0.72	< 0.72	< 0.72	< 0.72	< 0.72
8260B	Carbon disulfide	75-15-0	UG/L			1000	< 7.7	< 9.6	< 0.38	< 0.38	< 38	< 0.38	< 1900	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38
8260B	Carbon tetrachloride	56-23-5	UG/L	5		0.17	< 8.1	< 10	< 0.41	< 0.41	< 41	< 0.41	< 2000	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41
8260B	Chlorobenzene	108-90-7	UG/L	100		91	< 6.7	8.4 J	< 0.33	110	< 33	< 0.33	< 1700	< 0.33	30	< 0.33	< 0.33	< 0.33	< 0.33
8260B	Chloroethane	75-00-3	UG/L			3.9	< 9	< 11	1.3 J	< 0.45	< 45	< 0.45	< 2200	< 0.45	0.9 J	< 0.45	< 0.45	< 0.45	< 0.45
8260B	Chloroform	67-66-3	UG/L			0.17	< 7	< 8.7	< 0.35	< 0.35	< 35	< 0.35	< 1700	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35
8260B	Chloromethane	74-87-3	UG/L			2.1	< 9.6	< 12	< 0.48	< 0.48	< 48	< 0.48	< 2400	< 0.48	< 0.48	< 0.48	< 0.48	1.5 J	< 0.48
8260B	cis-1,2-Dichloroethene	156-59-2	UG/L	70		61	< 7.3	< 9.2	< 0.37	< 0.37	< 37	< 0.37	< 1800	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37
8260B	cis-1,3-Dichloropropene	10061-01-5	UG/L			0.4	< 6.1	< 7.7	< 0.31	< 0.31	< 31	< 0.31	< 1500	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31
8260B	Dibromochloromethane	124-48-1	UG/L			0.13	< 5.6	< 7	< 0.28	< 0.28	< 28	< 0.28	< 1400	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28
8260B	Dibromomethane	74-95-3	UG/L			61	< 8.1	< 10	< 0.41	< 0.41	< 41	< 0.41	< 2000	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41
8260B	Ethylbenzene	100-41-4	UG/L	700		1300	< 8.3	< 10	< 0.42	2.4	< 42	< 0.42	< 2100	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42
8260B	Methylene chloride	75-09-2	UG/L	5		4.3	< 8.4	< 11	< 0.42	< 0.42	1900	< 0.42	9200	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42
8260B	m-Xylene & p-Xylene	136777-61-2	UG/L				< 17	< 21	< 0.83	< 0.83	160 J	< 0.83	< 4100	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83
8260B	o-Xylene	95-47-6	UG/L			1400	< 7.7	< 9.7	< 0.39	0.49 J	94 J	< 0.39	< 1900	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39
8260B	Styrene	100-42-5	UG/L	100		1600	< 6.2	< 7.8	< 0.31	< 0.31	< 31	< 0.31	< 1600	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31
8260B	Tetrachloroethene	127-18-4	UG/L	5		0.11	< 8	< 9.9	< 0.4	< 0.4	< 40	< 0.4	< 2000	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
8260B	Toluene	108-88-3	UG/L	1000		2300	< 7.8	< 9.8	< 0.39	0.71 J	7000	< 0.39	3200 J	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39
8260B	trans-1,2-Dichloroethene	156-60-5	UG/L	100		110	< 7.4	< 9.3	< 0.37	< 0.37	< 37	< 0.37	< 1900	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37
8260B	trans-1,3-Dichloropropene	10061-02-6	UG/L			0.4	< 4.2	< 5.2	< 0.21	< 0.21	< 21	< 0.21	< 1000	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21
8260B	Trichloroethene	79-01-6	UG/L	5		0.028	< 9	< 11	< 0.45	< 0.45	< 45	< 0.45	< 2200	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45
8260B	Trichlorofluoromethane	75-69-4	UG/L			1300	< 9.5	< 12	< 0.47	< 0.47	< 47	< 0.47	< 2400	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47
8260B	Vinyl acetate	108-05-4	UG/L			410	< 5.9	< 7.3	< 0.29	< 0.29	35 J	< 0.29	< 1500	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29
8260B	Vinyl chloride	75-01-4	UG/L	2		0.015	< 8	< 10	10	< 0.4	< 40	< 0.4	< 2000	1.1 J	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
8260B	Xylenes (total)	1330-20-7	UG/L	10000		200	< 24	< 30	< 1.2	< 1.2	250 J	< 1.2	< 6000	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Semivolatile Organic Compounds (SVOCs)																			
8270C	1,2,4-Trichlorobenzene	120-82-1	UG/L	70		8.2	< 0.81	< 0.81	< 0.81	< 0.81	2.9 J	< 0.81	< 8.8	< 0.8	< 0.81	< 0.82	< 0.8	< 0.81	< 0.81
8270C	1,2-Dichlorobenzene	95-50-1	UG/L	600		49	< 0.94	5.1 J	< 0.94	1.2 J	1800 J	< 0.94	380	< 0.92	< 0.93	< 0.95	< 0.92	< 0.93	< 0.93
8270C	1,3-Dichlorobenzene	541-73-1	UG/L			15	< 0.96	< 0.96	< 0.96	< 0.96	< 0.99	< 0.96	< 10	< 0.94	< 0.95	< 0.97	< 0.94	< 0.95	< 0.95
8270C	1,4-Dichlorobenzene	106-46-7	UG/L	75		0.47	< 0.78	< 0.78	< 0.78	< 0.78	7.9 J	< 0.78	< 8.5	< 0.77	< 0.78	< 0.79	< 0.77	< 0.78	< 0.78
8270C	2,4,5-Trichlorophenol	95-95-4	UG/L			3700	< 0.97	< 0.97	< 0.97	< 0.97	< 1	< 0.97	< 11	< 0.95	< 0.96	< 0.98	< 0.95	< 0.96	< 0.96
8270C	2,4,6-Trichlorophenol	88-06-2	UG/L			6.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 12	< 1	< 1.1	< 1.1	< 1	< 1.1	< 1.1
8270C	2,4-Dichlorophenol	120-83-2	UG/L			110	< 1	< 1	< 1	< 1	3.6 J	< 1	< 11	< 0.98	< 0.99	< 1	< 0.98	< 0.99	< 0.99
8270C	2,4-Dimethylphenol	105-67-9	UG/L			730	< 1.8	< 1.8	< 1.8	< 1.8	< 1.9	< 1.8	< 20	< 1.8	< 1.8	< 1.9	< 1.8	< 1.8	< 1.8
8270C	2,4-Dinitrophenol	51-28-5	UG/L			73	< 3.6	< 3.6	< 3.6	< 3.6	8900 J	< 3.6	< 39	< 3.6	< 3.6	< 3.7	< 3.6	< 3.6	< 3.6
8270C	2,4-Dinitrotoluene	121-14-2	UG/L			73	< 2.8	< 2.8	< 2.8	< 2.8	< 2.9	< 2.8	< 30	< 2.7	< 2.8	< 2.8	< 2.7	< 2.8	< 2.8
8270C	2,6-Dinitrotoluene	606-20-2	UG/L			37	< 1	< 1	< 1	< 1	< 1	< 1	< 11	< 0.97	< 0.98	< 1	< 0.97	< 0.98	< 0.98
8270C	2-Chloronaphthalene	91-58-7	UG/L			490	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.4	< 15	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
8270C	2-Chlorophenol	95-57-8	UG/L			30	< 1.4	< 1.4	< 1.4	< 1.4	12	< 1.4	< 16	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 1.4

Table 10
Fall 2008 Groundwater Sampling Analytical Results
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Primary Drinking Water Std (ug/L)	Secondary Drinking Water Std (ug/L)	TapWater MSSL (ug/l)	EMW-7 9/25/2008	MW-10 9/24/2008	MW-13 9/23/2008	MW-15 9/23/2008	MW-16 9/26/2008	MW-17 9/23/2008	MW-18 9/26/2008	MW-22MA 9/28/2008	MW-22LA 9/28/2008	MW-23 9/24/2008	MW-25MA 9/27/2008	DUP4KAT 9/27/2008	MW-25LA 9/27/2008
8270C	2-Methylnaphthalene	91-57-6	UG/L				< 0.94	< 0.94	< 0.94	< 0.94	< 0.97	< 0.94	< 10	< 0.92	< 0.93	< 0.95	< 0.92	< 0.93	< 0.93
8270C	2-Methylphenol	95-48-7	UG/L			1800	< 1.8	< 1.8	< 1.8	41	14 J	< 1.8	< 19	< 1.7 J	< 1.8 J	< 1.8	< 1.7	< 1.8	< 1.8
8270C	2-Nitroaniline	88-74-4	UG/L			110	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 13	< 1.1	< 1.1	< 1.2	< 1.1	< 1.1	< 1.1
8270C	2-Nitrophenol	88-75-5	UG/L				< 1	< 1	< 1	< 1	110	< 1	< 11	< 1	< 1	< 1	< 1	< 1	< 1
8270C	3,3'-Dichlorobenzidine	91-94-1	UG/L			0.15	< 1.7	< 1.7	< 1.7 J	< 1.7 J	< 1.7	< 1.7 J	< 18	< 1.6	< 1.6	< 1.7 J	< 1.6	< 1.6	< 1.6
8270C	3,4-Dichloroaniline	95-76-1	UG/L				< 1	< 1	3.7 J	15	< 1	< 1	< 11	29	1.7 J	< 1	< 0.97	< 0.98	< 0.98
8270C	3-Methylphenol & 4-Methylphenol	65794-96-9	UG/L			180	< 2.5	< 2.5	< 2.5	< 2.5	9.5 J	< 2.5	< 27	< 2.5 J	< 2.5 J	< 2.5	< 2.5	< 2.5	< 2.5
8270C	3-Nitroaniline	99-09-2	UG/L				< 1.2	< 1.2	< 1.2 J	< 1.2 J	< 1.2	< 1.2 J	< 13	< 1.2	< 1.2	< 1.2 J	< 1.2	< 1.2	< 1.2
8270C	4,6-Dinitro-2-methylphenol	534-52-1	UG/L				< 3.5	< 3.5	< 3.5	< 3.5	< 3.6	< 3.5	< 37	< 3.4	< 3.4	< 3.5	< 3.4	< 3.4	< 3.4
8270C	4-Bromophenyl phenyl ether	101-55-3	UG/L				< 0.91	< 0.91	< 0.91	< 0.91	< 0.93	< 0.91	< 9.8	< 0.89	< 0.9	< 0.91	< 0.89	< 0.9	< 0.9
8270C	4-Chloro-3-methylphenol	59-50-7	UG/L				< 1	< 1	< 1	< 1	< 1.1	< 1	< 11	< 1	< 1	< 1.1	< 1	< 1	< 1
8270C	4-Chloroaniline	106-47-8	UG/L			150	< 1.6	< 1.6	3.4 J	3000 J	< 1.7	< 1.6 J	< 17	< 1.6	4.1 J	< 1.6 J	< 1.6	< 1.6	< 1.6
8270C	4-Chlorophenyl phenyl ether	7005-72-3	UG/L				< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 15	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
8270C	4-Nitroaniline	100-01-6	UG/L				< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 11	< 1	< 1	< 1.1	< 1	< 1	< 1
8270C	4-Nitrophenol	100-02-7	UG/L			290	< 4	< 4	< 4	< 4	1400 J	< 4	< 43	< 3.9 J	< 3.9 J	< 4	< 3.9	< 3.9	< 3.9
8270C	Acenaphthene	83-32-9	UG/L			370	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 12	< 1	< 1.1	< 1.1	< 1	< 1.1	< 1.1
8270C	Acenaphthylene	208-96-8	UG/L				< 0.88	< 0.88	< 0.88	< 0.88	< 0.9	< 0.88	< 9.5	< 0.86	< 0.87	< 0.89	< 0.86	< 0.87	< 0.87
8270C	Aniline	62-53-3	UG/L			12	< 2	< 2	< 2	18	< 2	< 2	< 22	< 1.9	< 2	< 2	< 1.9	< 2	< 2
8270C	Anthracene	120-12-7	UG/L			1800	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 12	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Benzo(a)anthracene	56-55-3	UG/L			0.03	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 12	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Benzo(a)pyrene	50-32-8	UG/L	0.2		0.003	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 12	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Benzo(b)fluoranthene	205-99-2	UG/L			0.03	< 0.76	< 0.76	< 0.76	< 0.76	< 0.79	< 0.76	< 8.3	< 0.75	< 0.76	< 0.77	< 0.75	< 0.76	< 0.76
8270C	Benzo(ghi)perylene	191-24-2	UG/L				< 0.74	< 0.74	< 0.74	< 0.74	< 0.76	< 0.74	< 8	< 0.72	< 0.73	< 0.75	< 0.72	< 0.73	< 0.73
8270C	Benzo(k)fluoranthene	207-08-9	UG/L			0.3	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 13	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
8270C	Benzoic acid	65-85-0	UG/L			150000	< 13	< 13	< 13	< 13	70	< 13	180 J	< 13	< 13	< 13	< 13	< 13	< 13
8270C	Benzyl alcohol	100-51-6	UG/L			11000	< 1.6	< 1.6	< 1.6	< 1.6	86	< 1.6	< 17	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6
8270C	bis(2-Chloroethoxy)methane	111-91-1	UG/L				< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 12	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	bis(2-Chloroethyl) ether	111-44-4	UG/L			0.0098	< 0.53	< 0.53	< 0.53	< 0.53	< 0.54	< 0.53	< 5.7	< 0.52	41	< 0.53	< 0.52	< 0.52	< 0.52
8270C	bis(2-Chloroisopropyl) ether	108-60-1	UG/L			0.27	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 13	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
8270C	bis(2-Ethylhexyl) phthalate	117-81-7	UG/L	6		4.8	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 29	< 2.6	< 2.6	< 2.7	< 2.6	< 2.6	< 2.6
8270C	Butyl benzyl phthalate	85-68-7	UG/L			7300	< 0.96	< 0.96	< 0.96	< 0.96	< 0.99	< 0.96	< 10	< 0.94	< 0.95	< 0.97	< 0.94	< 0.95	< 0.95
8270C	Chrysene	218-01-9	UG/L			3	< 1	< 1	< 1	< 1	< 1.1	< 1	< 11	< 1	< 1	< 1.1	< 1	< 1	< 1
8270C	Dibenz(a,h)anthracene	53-70-3	UG/L			0.003	< 0.98	< 0.98	< 0.98	< 0.98	< 1	< 0.98	< 11	< 0.96	< 0.97	< 0.99	< 0.96	< 0.97	< 0.97
8270C	Dibenzofuran	132-64-9	UG/L			12	< 1	< 1	< 1	< 1	< 1.1	< 1	< 11	< 1	< 1	< 1	< 1	< 1	< 1
8270C	Diethyl phthalate	84-66-2	UG/L			29000	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.4	< 16	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
8270C	Dimethyl phthalate	131-11-3	UG/L			370000	< 1.2	< 1.2	< 1.2	< 1.2	< 1.3	< 1.2	< 13	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
8270C	Di-n-butyl phthalate	84-74-2	UG/L			3700	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 12	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Di-n-octyl phthalate	117-84-0	UG/L				< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 12	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Dinoseb	88-85-7	UG/L	7		37	< 0.4	16 J	< 0.4	< 0.4	840	< 0.4	840	5.6 J	< 0.4	< 0.4	< 0.39	< 0.4	< 0.4
8270C	Fluoranthene	206-44-0	UG/L			1500	< 0.89	< 0.89	< 0.89	< 0.89	< 0.92	< 0.89	< 9.7	< 0.87	< 0.88	< 0.9	< 0.87	< 0.88	< 0.88
8270C	Fluorene	86-73-7	UG/L			240	< 0.98	< 0.98	< 0.98	< 0.98	< 1	< 0.98	< 11	< 0.96	< 0.97	< 0.99	< 0.96	< 0.97	< 0.97
8270C	Hexachlorobenzene	118-74-1	UG/L	1		0.042	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.4	< 16	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
8270C	Hexachlorobutadiene	87-68-3	UG/L			0.86	< 1.2	< 1.2	< 1.2	< 1.2	< 1.3	< 1.2	< 13	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
8270C	Hexachlorocyclopentadiene	77-47-4	UG/L	50		220	< 3.3	< 3.3	< 3.3	< 3.3	< 3.4	< 3.3	< 36	< 3.2	< 3.3	< 3.3	< 3.2	< 3.3	< 3.3
8270C	Hexachloroethane	67-72-1	UG/L			4.8	< 0.91	< 0.91	< 0.91	< 0.91	< 0.94	< 0.91	< 9.9	< 0.89	< 0.9	< 0.92	< 0.89	< 0.9	< 0.9
8270C	Indeno(1,2,3-cd)pyrene	193-39-5	UG/L			0.03	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 12	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Isophorone	78-59-1	UG/L			71	< 1.1	< 1.1	< 1.1	1.3 J	2 J	< 1.1	< 12	< 1	< 1.1	< 1.1	< 1	< 1.1	< 1.1
8270C	Naphthalene	91-20-3	UG/L			6.2	< 0.85	< 0.85	< 0.85	< 0.85	1.5 J	< 0.85	< 9.2	< 0.83	< 0.84	< 0.86	< 0.83	< 0.84	< 0.84
8270C	Nitrobenzene	98-95-3	UG/L			3.4	< 1.1	< 1.1	< 1.1	< 1.1	7.9 J	< 1.1	< 12	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	N-Nitrosodi-n-propylamine	621-64-7	UG/L			0.0096	< 1	< 1	< 1	< 1	< 1	< 1	< 11	< 0.99	< 1	< 1	< 0.99	< 1	< 1
8270C	N-Nitrosodiphenylamine	86-30-6	UG/L			14	< 0.91	< 0.91	< 0.91 J	< 0.91 J	< 0.94	< 0.91 J	< 9.9	< 0.89	< 0.9	< 0.92 J	< 0.89	< 0.9	< 0.9
8270C	Pentachlorophenol	87-86-5	UG/L	1		0.56	< 5.3	< 5.3	< 5.3	< 5.3	< 5.4	< 5.3	< 57	< 5.2	< 5.2	< 5.3	< 5.2	< 5.2	< 5.2
8270C	Phenanthrene	85-01-8	UG/L				< 0.97	< 0.97	< 0.97	< 0.97	< 1	< 0.97	< 11	< 0.95	< 0.96	< 0.98	< 0.95	< 0.96	< 0.96
8270C	Phenol	108-95-2	UG/L			11000	< 2.1	< 2.1	< 2.1	< 2.1	40 J	< 2.1	< 22	< 2 J	5.4 J	< 2.1	< 2	< 2	< 2
8270C	Propanil	709-98-8	UG/L			180	< 0.76	< 0.76	< 0.76	< 0.76	29	< 0.76	160	< 0.75	< 0.75	< 0.77	< 0.75	< 0.75	< 0.75
8270C	Pyrene	129-00-0	UG/L			180	< 0.89	< 0.89	< 0.89	< 0.89	< 0.92	< 0.89	< 9.7	< 0.87	< 0.88	< 0.9	< 0.87	< 0.88	< 0.88

Table 10
Fall 2008 Groundwater Sampling Analytical Results
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Primary Drinking Water Std (ug/L)	Secondary Drinking Water Std (ug/L)	TapWater MSSL (ug/l)	MW-26UA 11/5/2008	MW-26MA 11/5/2008	MW-26LA 11/5/2008	OFF-MW-10UA 11/6/2008	OFF-MW-10MA 11/6/2008	OFF-MW-10LA 11/6/2008	OFF-MW-11UA 11/6/2008	OFF-MW-11MA 11/6/2008	OFF-MW-11LA 11/6/2008	OFF-MW-3 11/5/2008	OFF-MW-4 11/5/2008	OFF-MW-5UA 9/26/2008	OFF-MW-5MU 9/26/2008
	Metals																		
6020	Aluminum	7429-90-5	UG/L		50	37000	260	2740	1890	7220	4460	6330	14200	6130	898	394	< 30.3	< 30.3	< 30.3
6020	Antimony	7440-36-0	UG/L	6		15	1.0 UB	1.0 UB	1.0 UB	1.0 UB	1.0 UB	1.0 UB	1.0 UB	1.0 UB	1.0 UB	1.5	0.61 J	1.0 UB	< 0.029
6020	Arsenic	7440-38-2	UG/L	10		0.045	1.8	4.2	5.6	7.5	6.8	6.7	5.2	4.6	3.5	3.7	2.1	0.58 J	0.77 J
6020	Barium	7440-39-3	UG/L	2000		7300	175	203	149	115	158	221	241	204	151	313	141	168	170
6020	Beryllium	7440-41-7	UG/L	4		73	0.077 J	0.10 J	0.41 J	0.47 J	0.30 J	0.41 J	0.86 J	0.41 J	0.095 J	< 0.023	< 0.023	< 0.023	< 0.023
6020	Cadmium	7440-43-9	UG/L	5		18	0.034 J	0.038 J	0.040 J	0.095 J	0.068 J	0.094 J	0.46 J	0.20 J	0.032 J	0.066 J	0.12 J	< 0.023	< 0.023
6020	Calcium	7440-70-2	UG/L				63600 J	62200	55600	15100	43700	53200	53800	61200	63200	113000	61400	66000	67200
6020	Chromium	7440-47-3	UG/L	100			2.0	7.8	3.5	11.7	7.1	9.6	21.6	10.1	2.4	0.81 J	0.64 J	< 0.56	< 0.56
6020	Cobalt	7440-48-4	UG/L			730	0.76 JH	2.1	2.8 JH	4.1	3.2	4.8	9.6	4.8	1.2	0.70 JH	0.21 J	0.14 J	0.13 J
6020	Copper	7440-50-8	UG/L	1300	1000	1400	1.4	3.7 JH	2.1	7.3	4.3	5.9	17.4	8.3	1.1 JH	2.5	1.4 JH	1.0 UB	1.0 UB
6020	Iron	7439-89-6	UG/L		300	26000	14000	14400	3840	11200	9220	10800	17800	9930	3970	1080	396	8450	8400
6020	Lead	7439-92-1	UG/L	15		15	1.3	2.0	3.0	6.0	3.6	5.3	21.2	9.8	0.88 J	0.34 J	0.14 J	< 0.05	< 0.05
6020	Magnesium	7439-95-4	UG/L				30700 JL	30100 JL	22500 JL	7990 JL	19700 JL	23400 JL	24300 JL	26700 JL	26000 JL	12200 JL	29200 JL	29200	29900
6020	Manganese	7439-96-5	UG/L		50	1700	667 JL	595 JL	522 JL	693 JL	896 JL	1120 JL	628 JL	660 JL	698 JL	148 JL	94.0 JL	634	635
6020	Nickel	7440-02-0	UG/L			730	3.1	5.9	4.2	8.7	6.2	8.8	25.5	12.9	3.3	11.0	2.8	1.4	1.5
6020	Potassium	7440-09-7	UG/L				4240	5040	2740	3350	3220	3270	5750	4310	2910	7920	1790	1680 J	1720 J
6020	Selenium	7782-49-2	UG/L	50		180	1.0 UB	1.0 UB	1.0 UB	1.0 UB	1.0 UB	1.0 UB	1.0 UB	1.0 UB	1.0 UB	1.4	< 0.11	< 0.11	< 0.11
6020	Silver	7440-22-4	UG/L		100	180	< 0.04	< 0.04	< 0.04	0.072 J	< 0.04	< 0.04	0.062 J	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
6020	Sodium	7440-23-5	UG/L				29100	30300	72600	128000	77500	81000	116000	83500	65200	46300	10500	12200	12800
6020	Thallium	7440-28-0	UG/L	2		2.6	0.089	0.030 J	0.035 J	0.094 J	0.060 J	0.090 J	0.17 J	0.078 J	< 0.019	< 0.019	0.10 J	< 0.019	< 0.019
6020	Vanadium	7440-62-2	UG/L			180	0.39	3.5	4.6	13.0	7.6	10.8	20.9	10.3	2.5	1.4	0.22 J	< 0.15	< 0.15
6020	Zinc	7440-66-6	UG/L		5000	11000	10.5 JH	13.0 JH	11.7 JH	32.2	21.7	32.6	59.6	31.3	9.8 J	17.2 JH	10.8 JH	6.7 J	7.2 J
	Organochlorine Pesticides																		
8081A	4,4'-DDD	72-54-8	UG/L			0.28	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077 J
8081A	4,4'-DDE	72-55-9	UG/L			0.2	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075 J
8081A	4,4'-DDT	50-29-3	UG/L			0.2	< 0.015 J	< 0.015 J	< 0.015 J	< 0.015 J	< 0.015 J	< 0.015 J	< 0.015 J	< 0.015 J	< 0.015 J	< 0.015 J	< 0.015 J	< 0.015 J	< 0.015 J
8081A	Aldrin	309-00-2	UG/L			0.004	< 0.0059 J	< 0.0059 J	< 0.0059 J	< 0.0059 J	< 0.0059 J	< 0.0059 J	< 0.0059 J	< 0.0059 J	< 0.0059 J	< 0.0059 J	< 0.0059 J	< 0.0059 J	< 0.0059 J
8081A	alpha-BHC	319-84-6	UG/L			0.011	< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053 J
8081A	alpha-Chlordane	5103-71-9	UG/L				< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053 J
8081A	beta-BHC	319-85-7	UG/L			0.037	< 0.0087 J	< 0.0087 J	< 0.0087 J	< 0.0087 J	< 0.0087 J	< 0.0087 J	< 0.0087 J	< 0.0087 J	< 0.0087 J	< 0.0087 J	< 0.0087 J	< 0.0087 J	< 0.0087 J
8081A	Chlordane (technical)	57-74-9	UG/L	2		0.19	< 0.14 J	< 0.14 J	< 0.14 J	< 0.14 J	< 0.14 J	< 0.14 J	< 0.14 J	< 0.14 J	< 0.14 J	< 0.14 J	< 0.14 J	< 0.14 J	< 0.14 J
8081A	delta-BHC	319-86-8	UG/L				< 0.0058 J	< 0.0058 J	< 0.0058 J	< 0.0058 J	< 0.0058 J	< 0.0058 J	< 0.0058 J	< 0.0058 J	< 0.0058 J	< 0.0058 J	< 0.0058 J	< 0.0058 J	< 0.0058 J
8081A	Dieldrin	60-57-1	UG/L			0.0042	< 0.0063 J	< 0.0063 J	< 0.0063 J	< 0.0063 J	< 0.0063 J	< 0.0063 J	< 0.0063 J	< 0.0063 J	< 0.0063 J	< 0.0063 J	< 0.0063 J	< 0.0063 J	< 0.0063 J
8081A	Endosulfan I	959-98-8	UG/L				< 0.0058 J	< 0.0058 J	< 0.0058 J	< 0.0058 J	< 0.0058 J	< 0.0058 J	< 0.0058 J	< 0.0058 J	< 0.0058 J	< 0.0058 J	< 0.0058 J	< 0.0058 J	< 0.0058 J
8081A	Endosulfan II	33213-65-9	UG/L				< 0.007 J	< 0.007 J	< 0.007 J	< 0.007 J	< 0.007 J	< 0.007 J	< 0.007 J	< 0.007 J	< 0.007 J	< 0.007 J	< 0.007 J	< 0.007 J	< 0.007 J
8081A	Endosulfan sulfate	1031-07-8	UG/L				< 0.0057 J	< 0.0057 J	< 0.0057 J	< 0.0057 J	< 0.0057 J	< 0.0057 J	< 0.0057 J	< 0.0057 J	< 0.0057 J	< 0.0057 J	< 0.0057 J	< 0.0057 J	< 0.0057 J
8081A	Endrin	72-20-8	UG/L	2		11	< 0.0079 J	< 0.0079 J	< 0.0079 J	< 0.0079 J	< 0.0079 J	< 0.0079 J	< 0.0079 J	< 0.0079 J	< 0.0079 J	< 0.0079 J	< 0.0079 J	< 0.0079 J	< 0.0079 J
8081A	Endrin aldehyde	7421-93-4	UG/L				< 0.0088 J	< 0.0088 J	< 0.0088 J	< 0.0088 J	< 0.0088 J	< 0.0088 J	< 0.0088 J	< 0.0088 J	< 0.0088 J	< 0.0088 J	< 0.0088 J	< 0.0088 J	< 0.0088 J
8081A	Endrin ketone	53494-70-5	UG/L				< 0.007 J	< 0.007 J	< 0.007 J	< 0.007 J	< 0.007 J	< 0.007 J	< 0.007 J	< 0.007 J	< 0.007 J	< 0.007 J	< 0.007 J	< 0.007 J	< 0.007 J
8081A	gamma-BHC (Lindane)	58-89-9	UG/L	0.2		0.052	< 0.0069 J	< 0.0069 J	< 0.0069 J	< 0.0069 J	< 0.0069 J	< 0.0069 J	< 0.0069 J	< 0.0069 J	< 0.0069 J	< 0.0069 J	< 0.0069 J	< 0.0069 J	< 0.0069 J
8081A	gamma-Chlordane	5103-74-2	UG/L				< 0.0091 J	< 0.0091 J	< 0.0091 J	< 0.0091 J	< 0.0091 J	< 0.0091 J	< 0.0091 J	< 0.0091 J	< 0.0091 J	< 0.0091 J	< 0.0091 J	< 0.0091 J	< 0.0091 J
8081A	Heptachlor	76-44-8	UG/L	0.4		0.015	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077 J
8081A	Heptachlor epoxide	1024-57-3	UG/L	0.2		0.0074	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075 J
8081A	Methoxychlor	72-43-5	UG/L	40		180	< 0.013 J	< 0.013 J	< 0.013 J	< 0.013 J	< 0.013 J	< 0.013 J	< 0.013 J	< 0.013 J	< 0.013 J	< 0.013 J	< 0.013 J	< 0.013 J	< 0.013 J
8081A	Toxaphene	8001-35-2	UG/L	3		0.061	< 0.37 J	< 0.37 J	< 0.37 J	< 0.37 J	< 0.37 J	< 0.37 J	< 0.37 J	< 0.37 J	< 0.37 J	< 0.37 J	< 0.37 J	< 0.37 J	< 0.37 J
	Herbicides																		
8151A	Dinoseb	88-85-7	UG/L	7		37	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24
	Volatile Organic Compounds (VOCs)																		
8260B	1,1,1-Trichloroethane	71-55-6	UG/L	200		840	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 9	< 7.2	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36
8260B	1,1,2,2-Tetrachloroethane	79-34-5	UG/L			0.055	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 7.8	< 6.2	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31
8260B	1,1,2-Trichloroethane	79-00-5	UG/L	5		0.2	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 8.8	< 7	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35
8260B	1,1-Dichloroethane	75-34-3	UG/L			1200	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 9.4	< 7.5	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37
8260B	1,1-Dichloroethene	75-35-4	UG/L	7		340	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 11	< 8.5	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43

Table 10
Fall 2008 Groundwater Sampling Analytical Results
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Primary Drinking Water Std (ug/L)	Secondary Drinking Water Std (ug/L)	TapWater MSSL (ug/l)	MW-26UA 11/5/2008	MW-26MA 11/5/2008	MW-26LA 11/5/2008	OFF-MW-10UA 11/6/2008	OFF-MW-10MA 11/6/2008	OFF-MW-10LA 11/6/2008	OFF-MW-11UA 11/6/2008	OFF-MW-11MA 11/6/2008	OFF-MW-11LA 11/6/2008	OFF-MW-3 11/5/2008	OFF-MW-4 11/5/2008	OFF-MW-5UA 9/26/2008	OFF-MW-5MU 9/26/2008
8260B	1,2-Dibromoethane (EDB)	106-93-4	UG/L	0.05		0.0056	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 7.5	< 6	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
8260B	1,2-Dichlorobenzene	95-50-1	UG/L	600		49	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 11	< 8.7	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43
8260B	1,2-Dichloroethane	107-06-2	UG/L	5		0.12	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	1300	760	< 0.39	66	2.4	< 0.39	< 0.39
8260B	1,2-Dichloroethene (total)	540-59-0	UG/L				< 0.73	< 0.73	< 0.73	< 0.73	< 0.73	< 0.73	< 18	< 15	< 0.73	< 0.73	< 0.73	< 0.73	< 0.73
8260B	1,2-Dichloropropane	78-87-5	UG/L	5		0.17	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 9.3	< 7.5	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37
8260B	1,3-Dichlorobenzene	541-73-1	UG/L			15	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 9.6	< 7.7	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39
8260B	1,4-Dichlorobenzene	106-46-7	UG/L	75		0.47	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 9.4	< 7.5	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38
8260B	2-Butanone (MEK)	78-93-3	UG/L			7100	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84	< 21	< 17	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84
8260B	2-Chloroethyl vinyl ether	110-75-8	UG/L				< 0.62	< 0.62	< 0.62	< 0.62	< 0.62	< 0.62	< 16	< 12	< 0.62	< 0.62 J	< 0.62	< 0.62	< 0.62
8260B	2-Hexanone	591-78-6	UG/L				5.3	4.4 J	5.5	4.6 J	1.6 J	7.6	< 6.7	< 5.3	0.82 J	< 0.27	< 0.27	0.75 J	0.72 J
8260B	4-Methyl-2-pentanone (MIBK)	108-10-1	UG/L			2000	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 10	< 8.3	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42
8260B	Acetone	67-64-1	UG/L			5500	5.0 UB	5.0 UB	5.0 UB	6.0 UB	< 0.82	6.7 UB	< 20	< 16	< 0.82	5.0 UB	< 0.82	< 0.82	< 0.82
8260B	Benzene	71-43-2	UG/L	5		0.35	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 9.8	< 7.8	< 0.39	0.80 J	< 0.39	< 0.39	< 0.39
8260B	Bromobenzene	108-86-1	UG/L			23	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 9.9	< 7.9	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39
8260B	Bromochloromethane	74-97-5	UG/L				< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 9.2	< 7.4	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37
8260B	Bromodichloromethane	75-27-4	UG/L			0.18	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 9.2	< 7.4	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37
8260B	Bromoform	75-25-2	UG/L			8.5	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 6.7	< 5.4	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27
8260B	Bromomethane	74-83-9	UG/L			8.7	< 0.72	< 0.72	< 0.72	< 0.72	< 0.72	< 0.72	< 18	< 14	< 0.72	< 0.72	< 0.72	< 0.72	< 0.72
8260B	Carbon disulfide	75-15-0	UG/L			1000	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 9.6	< 7.7	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38
8260B	Carbon tetrachloride	56-23-5	UG/L	5		0.17	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 10	< 8.1	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41
8260B	Chlorobenzene	108-90-7	UG/L	100		91	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 8.3	< 6.7	< 0.33	0.81 J	< 0.33	< 0.33	< 0.33
8260B	Chloroethane	75-00-3	UG/L			3.9	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 11	< 9	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45
8260B	Chloroform	67-66-3	UG/L			0.17	< 0.35	< 0.35	0.43 J	< 0.35	< 0.35	< 0.35	< 8.7	< 7	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35
8260B	Chloromethane	74-87-3	UG/L			2.1	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 12	< 9.6	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48
8260B	cis-1,2-Dichloroethene	156-59-2	UG/L	70		61	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 9.2	< 7.3	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37
8260B	cis-1,3-Dichloropropene	10061-01-5	UG/L			0.4	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 7.7	< 6.1	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31
8260B	Dibromochloromethane	124-48-1	UG/L			0.13	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 7	< 5.6	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28
8260B	Dibromomethane	74-95-3	UG/L			61	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 10	< 8.1	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41
8260B	Ethylbenzene	100-41-4	UG/L	700		1300	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 10	< 8.3	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42
8260B	Methylene chloride	75-09-2	UG/L	5		4.3	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 11	< 8.4	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42
8260B	m-Xylene & p-Xylene	136777-61-2	UG/L				< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 21	< 17	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83
8260B	o-Xylene	95-47-6	UG/L			1400	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 9.7	< 7.7	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39
8260B	Styrene	100-42-5	UG/L	100		1600	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 7.8	< 6.2	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31
8260B	Tetrachloroethene	127-18-4	UG/L	5		0.11	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 9.9	< 8	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
8260B	Toluene	108-88-3	UG/L	1000		2300	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 9.8	< 7.8	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39
8260B	trans-1,2-Dichloroethene	156-60-5	UG/L	100		110	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 9.3	< 7.4	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37
8260B	trans-1,3-Dichloropropene	10061-02-6	UG/L			0.4	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 5.2	< 4.2	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21
8260B	Trichloroethene	79-01-6	UG/L	5		0.028	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 11	< 9	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45
8260B	Trichlorofluoromethane	75-69-4	UG/L			1300	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 12	< 9.5	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47
8260B	Vinyl acetate	108-05-4	UG/L			410	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 7.3	< 5.9	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29
8260B	Vinyl chloride	75-01-4	UG/L	2		0.015	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 10	< 8	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
8260B	Xylenes (total)	1330-20-7	UG/L	10000		200	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 30	< 24	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Semivolatile Organic Compounds (SVOCs)																			
8270C	1,2,4-Trichlorobenzene	120-82-1	UG/L	70		8.2	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.84	< 0.81	< 0.81	< 0.8	< 0.81	< 0.81	< 0.8	< 0.81
8270C	1,2-Dichlorobenzene	95-50-1	UG/L	600		49	< 0.93	< 0.93	< 0.93	< 0.94	< 0.93	< 0.97	< 0.93	< 0.93	< 0.92	< 0.93	< 0.94	< 0.92	< 0.93
8270C	1,3-Dichlorobenzene	541-73-1	UG/L			15	< 0.95	< 0.95	< 0.95	< 0.96	< 0.95	< 0.99	< 0.95	< 0.95	< 0.94	< 0.95	< 0.96	< 0.94	< 0.95
8270C	1,4-Dichlorobenzene	106-46-7	UG/L	75		0.47	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.81	< 0.78	< 0.78	< 0.77	< 0.78	< 0.78	< 0.77	< 0.78
8270C	2,4,5-Trichlorophenol	95-95-4	UG/L			3700	< 0.96	< 0.96	< 0.96	< 0.97	< 0.96	< 1	< 0.96	< 0.96	< 0.95	< 0.96	< 0.97	< 0.95	< 0.96
8270C	2,4,6-Trichlorophenol	88-06-2	UG/L			6.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1	< 1.1	< 1.1	< 1	< 1.1
8270C	2,4-Dichlorophenol	120-83-2	UG/L			110	< 0.99	< 0.99	< 0.99	< 1	< 0.99	< 1	< 0.99	< 0.99	< 0.98	< 0.99	< 1	< 0.98	< 0.99
8270C	2,4-Dimethylphenol	105-67-9	UG/L			730	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.9	< 1.8	< 1.8	< 1.8	< 1.8 J	< 1.8	< 1.8	< 1.8
8270C	2,4-Dinitrophenol	51-28-5	UG/L			73	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.7	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6
8270C	2,4-Dinitrotoluene	121-14-2	UG/L			73	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.9	< 2.8	< 2.8	< 2.7	< 2.8	< 2.8	< 2.7	< 2.8
8270C	2,6-Dinitrotoluene	606-20-2	UG/L			37	< 0.98	< 0.98	< 0.98	< 1	< 0.98	< 1	< 0.98	< 0.98	< 0.97	< 0.98	< 1	< 0.97	< 0.98
8270C	2-Chloronaphthalene	91-58-7	UG/L			490	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
8270C	2-Chlorophenol	95-57-8	UG/L			30	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4

Table 10
Fall 2008 Groundwater Sampling Analytical Results
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Primary Drinking Water Std (ug/L)	Secondary Drinking Water Std (ug/L)	TapWater MSSL (ug/l)	MW-26UA 11/5/2008	MW-26MA 11/5/2008	MW-26LA 11/5/2008	OFF-MW-10UA 11/6/2008	OFF-MW-10MA 11/6/2008	OFF-MW-10LA 11/6/2008	OFF-MW-11UA 11/6/2008	OFF-MW-11MA 11/6/2008	OFF-MW-11LA 11/6/2008	OFF-MW-3 11/5/2008	OFF-MW-4 11/5/2008	OFF-MW-5UA 9/26/2008	OFF-MW-5MU 9/26/2008
8270C	2-Methylnaphthalene	91-57-6	UG/L				< 0.93	< 0.93	< 0.93	< 0.94	< 0.93	< 0.97	< 0.93	< 0.93	< 0.92	< 0.93	< 0.94	< 0.92	< 0.93
8270C	2-Methylphenol	95-48-7	UG/L			1800	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.7	< 1.8	< 1.8	< 1.7	< 1.8
8270C	2-Nitroaniline	88-74-4	UG/L			110	< 1.1	< 1.1	< 1.1	< 1.2	< 1.1	< 1.2	< 1.1	< 1.1	< 1.1	< 1.1 J	< 1.2	< 1.1	< 1.1
8270C	2-Nitrophenol	88-75-5	UG/L				< 1	< 1	< 1	< 1	< 1	< 1.1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
8270C	3,3'-Dichlorobenzidine	91-94-1	UG/L			0.15	< 1.6	< 1.6	< 1.6	< 1.7	< 1.6	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6 J	< 1.7	< 1.6	< 1.6
8270C	3,4-Dichloroaniline	95-76-1	UG/L				< 0.98	< 0.98	< 0.98	< 1	< 0.98	< 1	< 0.98	< 0.98	< 0.97	< 0.98 J	< 1	< 0.97	< 0.98
8270C	3-Methylphenol & 4-Methylphenol	65794-96-9	UG/L			180	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.6	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5
8270C	3-Nitroaniline	99-09-2	UG/L				< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2 J	< 1.2	< 1.2	< 1.2
8270C	4,6-Dinitro-2-methylphenol	534-52-1	UG/L				< 3.4	< 3.4	< 3.4	< 3.5	< 3.4	< 3.6	< 3.4	< 3.4	< 3.4	< 3.4	< 3.5	< 3.4	< 3.4
8270C	4-Bromophenyl phenyl ether	101-55-3	UG/L				< 0.9	< 0.9	< 0.9	< 0.91	< 0.9	< 0.93	< 0.9	< 0.9	< 0.89	< 0.9	< 0.91	< 0.89	< 0.9
8270C	4-Chloro-3-methylphenol	59-50-7	UG/L				< 1	< 1	< 1	< 1	< 1	< 1.1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
8270C	4-Chloroaniline	106-47-8	UG/L			150	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6 J	< 1.6	< 1.6	< 1.6
8270C	4-Chlorophenyl phenyl ether	7005-72-3	UG/L				< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
8270C	4-Nitroaniline	100-01-6	UG/L				< 1	< 1	< 1	< 1.1	< 1	< 1.1	< 1	< 1	< 1	< 1 J	< 1.1	< 1	< 1
8270C	4-Nitrophenol	100-02-7	UG/L			290	< 3.9	< 3.9	< 3.9	< 4	< 3.9	< 4.1	< 3.9	< 3.9	< 3.9	< 3.9	< 4	< 3.9	< 3.9
8270C	Acenaphthene	83-32-9	UG/L			370	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1	< 1.1	< 1.1	< 1	< 1.1
8270C	Acenaphthylene	208-96-8	UG/L				< 0.87	< 0.87	< 0.87	< 0.88	< 0.87	< 0.9	< 0.87	< 0.87	< 0.86	< 0.87	< 0.88	< 0.86	< 0.87
8270C	Aniline	62-53-3	UG/L			12	< 2	< 2	< 2	2.2 J	< 2	< 2	< 2	< 2	< 1.9	< 2 J	< 2	< 1.9	< 2
8270C	Anthracene	120-12-7	UG/L			1800	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Benzo(a)anthracene	56-55-3	UG/L			0.03	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Benzo(a)pyrene	50-32-8	UG/L	0.2		0.003	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Benzo(b)fluoranthene	205-99-2	UG/L			0.03	< 0.76	< 0.76	< 0.76	< 0.76	< 0.76	< 0.79	< 0.76	< 0.76	< 0.75	< 0.76	< 0.76	< 0.75	< 0.76
8270C	Benzo(ghi)perylene	191-24-2	UG/L				< 0.73	< 0.73	< 0.73	< 0.74	< 0.73	< 0.76	< 0.73	< 0.73	< 0.72	< 0.73	< 0.74	< 0.72	< 0.73
8270C	Benzo(k)fluoranthene	207-08-9	UG/L			0.3	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
8270C	Benzoic acid	65-85-0	UG/L			150000	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13
8270C	Benzyl alcohol	100-51-6	UG/L			11000	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6
8270C	bis(2-Chloroethoxy)methane	111-91-1	UG/L				< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	bis(2-Chloroethyl) ether	111-44-4	UG/L			0.0098	< 0.52	< 0.52	< 0.52	< 0.53	< 0.52	< 0.54	< 0.52	< 0.52	< 0.52	4.6 J	< 0.53	< 0.52	< 0.52
8270C	bis(2-Chloroisopropyl) ether	108-60-1	UG/L			0.27	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
8270C	bis(2-Ethylhexyl) phthalate	117-81-7	UG/L	6		4.8	< 2.6	< 2.6	2.7 J	< 2.7	< 2.6	4.7 J	300	4.4 J	< 2.6	< 2.6	< 2.7	< 2.6	< 2.6
8270C	Butyl benzyl phthalate	85-68-7	UG/L			7300	< 0.95	< 0.95	< 0.95	< 0.96	< 0.95	< 0.99	< 0.95	< 0.95	< 0.94	< 0.95	< 0.96	< 0.94	< 0.95
8270C	Chrysene	218-01-9	UG/L			3	9.6 UB	9.6 UB	9.6 UB	9.7 UB	9.6 UB	10 UB	9.6 UB	9.6 UB	9.6 UB	9.6 UB	9.7 UB	< 1	< 1
8270C	Dibenz(a,h)anthracene	53-70-3	UG/L			0.003	< 0.97	< 0.97	< 0.97	< 0.98	< 0.97	< 1	< 0.97	< 0.97	< 0.96	< 0.97	< 0.98	< 0.96	< 0.97
8270C	Dibenzofuran	132-64-9	UG/L			12	< 1	< 1	< 1	< 1	< 1	< 1.1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
8270C	Diethyl phthalate	84-66-2	UG/L			29000	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
8270C	Dimethyl phthalate	131-11-3	UG/L			370000	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.3	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
8270C	Di-n-butyl phthalate	84-74-2	UG/L			3700	1.5 J	1.5 J	1.8 J	< 1.1	1.4 J	1.4 J	< 1.1	1.1 J	1.3 J	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Di-n-octyl phthalate	117-84-0	UG/L				< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Dinoseb	88-85-7	UG/L	7		37	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.41	< 0.4	< 0.4	< 0.39	< 0.4	< 0.4	< 0.39	< 0.4
8270C	Fluoranthene	206-44-0	UG/L			1500	< 0.88	< 0.88	< 0.88	< 0.89	< 0.88	< 0.92	< 0.88	< 0.88	< 0.87	< 0.88	< 0.89	< 0.87	< 0.88
8270C	Fluorene	86-73-7	UG/L			240	< 0.97	< 0.97	< 0.97	< 0.98	< 0.97	< 1	< 0.97	< 0.97	< 0.96	< 0.97	< 0.98	< 0.96	< 0.97
8270C	Hexachlorobenzene	118-74-1	UG/L	1		0.042	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
8270C	Hexachlorobutadiene	87-68-3	UG/L			0.86	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.3	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
8270C	Hexachlorocyclopentadiene	77-47-4	UG/L	50		220	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.4	< 3.3	< 3.3	< 3.2	< 3.3	< 3.3	< 3.2	< 3.3
8270C	Hexachloroethane	67-72-1	UG/L			4.8	< 0.9	< 0.9	< 0.9	< 0.91	< 0.9	< 0.94	< 0.9	< 0.9	< 0.89	< 0.9	< 0.91	< 0.89	< 0.9
8270C	Indeno(1,2,3-cd)pyrene	193-39-5	UG/L			0.03	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Isophorone	78-59-1	UG/L			71	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1	< 1.1	< 1.1	< 1	< 1.1
8270C	Naphthalene	91-20-3	UG/L			6.2	< 0.84	< 0.84	< 0.84	< 0.85	< 0.84	< 0.88	< 0.84	< 0.84	< 0.83	< 0.84	< 0.85	< 0.83	< 0.84
8270C	Nitrobenzene	98-95-3	UG/L			3.4	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1 J	< 1.1	< 1.1	< 1.1
8270C	N-Nitrosodi-n-propylamine	621-64-7	UG/L			0.0096	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 0.99	< 1	< 1	< 0.99	< 1
8270C	N-Nitrosodiphenylamine	86-30-6	UG/L			14	< 0.9	< 0.9	< 0.9	< 0.91	< 0.9	< 0.94	< 0.9	< 0.9	< 0.89	< 0.9 J	< 0.91	< 0.89	< 0.9
8270C	Pentachlorophenol	87-86-5	UG/L	1		0.56	< 5.2	< 5.2	< 5.2	< 5.3	< 5.2	< 5.4	< 5.2	< 5.2	< 5.2	< 5.2	< 5.3	< 5.2	< 5.2
8270C	Phenanthrene	85-01-8	UG/L				< 0.96	< 0.96	< 0.96	< 0.97	< 0.96	< 1	< 0.96	< 0.96	< 0.95	< 0.96	< 0.97	< 0.95	< 0.96
8270C	Phenol	108-95-2	UG/L			11000	< 2	< 2	< 2	< 2.1	< 2	< 2.1	< 2	< 2	< 2	< 2	< 2.1	< 2	< 2
8270C	Propanil	709-98-8	UG/L			180	< 0.75	< 0.75	< 0.75	< 0.76	< 0.75	< 0.79	< 0.75	< 0.75	< 0.75	< 0.75	< 0.76	< 0.75	< 0.75
8270C	Pyrene	129-00-0	UG/L			180	< 0.88	< 0.88	< 0.88	< 0.89	< 0.88	< 0.92	< 0.88	< 0.88	< 0.87	< 0.88	< 0.89	< 0.87	< 0.88

Table 10
Fall 2008 Groundwater Sampling Analytical Results
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Primary Drinking Water Std (ug/L)	Secondary Drinking Water Std (ug/L)	TapWater MSSL (ug/l)	OFF-MW-5LA 9/26/2008	OFF-MW-6UA 9/27/2008	DUP3KAT 9/27/2008	OFF-MW-6MA 9/27/2008	OFF-MW-6LA 9/27/2008	OFF-MW-7UA 9/26/2008	OFF-MW-7MA 9/26/2008	OFF-MW-7LA 9/26/2008	OFF-MW-8UA 9/28/2008	OFF-MW-8MA 9/28/2008	OFF-MW-8LA 9/28/2008	OFF-MW-9UA 11/6/2008	OFF-MW-9MA 11/6/2008	OFF-MW-9LA 11/6/2008
	Metals																			
6020	Aluminum	7429-90-5	UG/L		50	37000	< 30.3	192	270	286	105	48.3 J	66.3	< 30.3	50.7	< 30.3	723	1170	29000	1630
6020	Antimony	7440-36-0	UG/L	6		15	< 0.029	1.0 UB	1.0 UB	1.0 UB	1.0 UB	< 0.029	< 0.029	< 0.029	1.0 UB	< 0.029	1.0 UB	1.0 UB	1.0 UB	1.0 UB
6020	Arsenic	7440-38-2	UG/L	10		0.045	0.81 J	1.2	1.1	1.5	1.6	1.6	1.7	1.8	2.1	2.5	1.1	7.4	7.6	2.4
6020	Barium	7440-39-3	UG/L	2000		7300	174	171	161	144	144	366	362	345	196	200	176	259	526	260
6020	Beryllium	7440-41-7	UG/L	4		73	< 0.023	< 0.023	0.029 J	0.05 J	< 0.023	< 0.023	0.043 J	< 0.023	< 0.023	< 0.023	0.13 J	0.092 J	1.6	0.12 J
6020	Cadmium	7440-43-9	UG/L	5		18	< 0.023	< 0.023	< 0.023	< 0.023	< 0.023	< 0.023	< 0.023	< 0.023	< 0.023	< 0.023	0.038 J	0.031 J	0.83 J	0.052 J
6020	Calcium	7440-70-2	UG/L				69200	71300	69100	105000	106000	171000	173000	169000	88900	91700	62400	67600	122000	62800 J
6020	Chromium	7440-47-3	UG/L	100			< 0.56	1.1	1.5	0.65 J	< 0.56	< 0.56	< 0.56	< 0.56	< 0.56	< 0.56	1.2	2.3	145	2.7
6020	Cobalt	7440-48-4	UG/L			730	0.13 J	0.33 J	0.46 J	0.88 J	0.92 J	0.6 J	0.55 J	0.51 J	0.57 J	0.46 J	0.56 J	1.6	37.8	1.8
6020	Copper	7440-50-8	UG/L	1300	1000	1400	1.0 UB	0.59 J	0.8 J	0.63 J	0.66 J	1.0 UB	1.0 UB	1.1 JH	0.62 J	0.31 J	1	0.99 JH	44.7	1.1 JH
6020	Iron	7439-89-6	UG/L		300	26000	8130	3090	3050	3550	3470	7890	7810	7020	11100	11500	5080	6660	73500	4030
6020	Lead	7439-92-1	UG/L	15		15	< 0.05	0.24 J	0.37 J	0.57 J	0.22 J	1.0 UB	1.0 UB	1.0 UB	0.16 J	0.088 J	2	1.2	34.9	1.5
6020	Magnesium	7439-95-4	UG/L				30600	32600	31100	47400	48200	63300	65000	63900	40500	41600	28800	27600 JL	43100 JL	24700 JL
6020	Manganese	7439-96-5	UG/L		50	1700	632	823	826	2140	2150	746	738	658	1140	1190	430	644 JL	2590 JL	715 JL
6020	Nickel	7440-02-0	UG/L			730	1.4	2.3	3.3	2.9	2.9	37	36.6	34.4	2	1.9	2.9	3.1	84.3	3.7
6020	Potassium	7440-09-7	UG/L				1770 J	1670 J	1720 J	1770 J	1770 J	2390 J	2470 J	2430 J	1820 J	1920 J	2190 J	2620	7690	3130
6020	Selenium	7782-49-2	UG/L	50		180	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	1.0 UB	1.0 UB	1.0 UB	< 0.11	< 0.11	< 0.11	1.0 UB	1.0 UB	1.0 UB
6020	Silver	7440-22-4	UG/L		100	180	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	0.088 J	< 0.04
6020	Sodium	7440-23-5	UG/L				12900	11800	13200	13400	13900	29900	30600	30000	11700	12200	18900	29800	20700	54000
6020	Thallium	7440-28-0	UG/L	2		2.6	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	0.38 J	0.021 J
6020	Vanadium	7440-62-2	UG/L			180	< 0.15	0.54 J	0.95 J	0.17 J	< 0.15	0.25 J	0.26 J	< 0.15	< 0.15	< 0.15	1.3	2.2	76.5	2.5
6020	Zinc	7440-66-6	UG/L		5000	11000	6.8 J	7.5 J	7.4 J	6.7 J	6.2 J	13.8 JH	14.8 JH	11.7 JH	8.2 J	8.3 J	10.7	13.3	135	17.7
	Organochlorine Pesticides																			
8081A	4,4'-DDD	72-54-8	UG/L			0.28	< 0.0077	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077	< 0.0077	< 0.0077	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077 J
8081A	4,4'-DDE	72-55-9	UG/L			0.2	< 0.0075	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075	< 0.0075	< 0.0075	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075 J
8081A	4,4'-DDT	50-29-3	UG/L			0.2	< 0.015	< 0.015 J	< 0.015 J	< 0.015 J	< 0.015 J	< 0.015	< 0.015	< 0.015	< 0.015 J	< 0.015 J	< 0.015 J	< 0.015 J	< 0.015 J	< 0.015 J
8081A	Aldrin	309-00-2	UG/L			0.004	< 0.0059	< 0.0059 J	< 0.0059 J	< 0.0059 J	< 0.0059 J	< 0.0059	< 0.0059	< 0.0059	< 0.0059 J	< 0.0059 J	< 0.0059 J	< 0.0059 J	< 0.0059 J	< 0.0059 J
8081A	alpha-BHC	319-84-6	UG/L			0.011	< 0.0053	< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053	< 0.0053	< 0.0053	< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053 J
8081A	alpha-Chlordane	5103-71-9	UG/L				< 0.0053	< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053	< 0.0053	< 0.0053	< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053 J	< 0.0053 J
8081A	beta-BHC	319-85-7	UG/L			0.037	< 0.0087	< 0.0087 J	< 0.0087 J	< 0.0087 J	< 0.0087 J	< 0.0087	< 0.0087	< 0.0087	< 0.0087 J	< 0.0087 J	< 0.0087 J	< 0.0087 J	< 0.0087 J	< 0.0087 J
8081A	Chlordane (technical)	57-74-9	UG/L	2		0.19	< 0.14	< 0.14 J	< 0.14 J	< 0.14 J	< 0.14 J	< 0.14	< 0.14	< 0.14	< 0.14 J	< 0.14 J	< 0.14 J	< 0.14 J	< 0.14 J	< 0.14 J
8081A	delta-BHC	319-86-8	UG/L				< 0.0058	< 0.0058 J	< 0.0058 J	< 0.0058 J	0.050 UBJ	< 0.0058	< 0.0058	< 0.0058	0.050 UBJ	0.050 UBJ	< 0.0058 J	< 0.0058 J	< 0.0058 J	< 0.0058 J
8081A	Dieldrin	60-57-1	UG/L			0.0042	< 0.0063	< 0.0063 J	< 0.0063 J	< 0.0063 J	< 0.0063 J	< 0.0063	< 0.0063	< 0.0063	< 0.0063 J	< 0.0063 J	< 0.0063 J	< 0.0063 J	< 0.0063 J	< 0.0063 J
8081A	Endosulfan I	959-98-8	UG/L				< 0.0058	< 0.0058 J	< 0.0058 J	< 0.0058 J	< 0.0058 J	< 0.0058	< 0.0058	< 0.0058	< 0.0058 J	< 0.0058 J	< 0.0058 J	< 0.0058 J	< 0.0058 J	< 0.0058 J
8081A	Endosulfan II	33213-65-9	UG/L				< 0.007	< 0.007 J	< 0.007 J	< 0.007 J	< 0.007 J	< 0.007	< 0.007	< 0.007	< 0.007 J	< 0.007 J	< 0.007 J	< 0.007 J	< 0.007 J	< 0.007 J
8081A	Endosulfan sulfate	1031-07-8	UG/L				< 0.0057	< 0.0057 J	< 0.0057 J	< 0.0057 J	< 0.0057 J	< 0.0057	< 0.0057	< 0.0057	< 0.0057 J	< 0.0057 J	< 0.0057 J	< 0.0057 J	< 0.0057 J	< 0.0057 J
8081A	Endrin	72-20-8	UG/L	2		11	< 0.0079	< 0.0079 J	< 0.0079 J	< 0.0079 J	< 0.0079 J	< 0.0079	< 0.0079	< 0.0079	< 0.0079 J	< 0.0079 J	< 0.0079 J	< 0.0079 J	< 0.0079 J	< 0.0079 J
8081A	Endrin aldehyde	7421-93-4	UG/L				< 0.0088	< 0.0088 J	< 0.0088 J	< 0.0088 J	< 0.0088 J	< 0.0088	< 0.0088	< 0.0088	< 0.0088 J	< 0.0088 J	< 0.0088 J	< 0.0088 J	< 0.0088 J	< 0.0088 J
8081A	Endrin ketone	53494-70-5	UG/L				< 0.007	< 0.007 J	< 0.007 J	< 0.007 J	< 0.007 J	< 0.007	< 0.007	< 0.007	< 0.007 J	< 0.007 J	< 0.007 J	< 0.007 J	< 0.007 J	< 0.007 J
8081A	gamma-BHC (Lindane)	58-89-9	UG/L	0.2		0.052	< 0.0069	< 0.0069 J	< 0.0069 J	< 0.0069 J	< 0.0069 J	< 0.0069	< 0.0069	< 0.0069	< 0.0069 J	< 0.0069 J	< 0.0069 J	< 0.0069 J	< 0.0069 J	< 0.0069 J
8081A	gamma-Chlordane	5103-74-2	UG/L				< 0.0091	< 0.0091 J	< 0.0091 J	< 0.0091 J	< 0.0091 J	< 0.0091	< 0.0091	< 0.0091	< 0.0091 J	< 0.0091 J	< 0.0091 J	< 0.0091 J	< 0.0091 J	< 0.0091 J
8081A	Heptachlor	76-44-8	UG/L	0.4		0.015	< 0.0077	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077	< 0.0077	< 0.0077	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077 J	< 0.0077 J
8081A	Heptachlor epoxide	1024-57-3	UG/L	0.2		0.0074	< 0.0075	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075	< 0.0075	< 0.0075	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075 J	< 0.0075 J
8081A	Methoxychlor	72-43-5	UG/L	40		180	< 0.013	< 0.013 J	< 0.013 J	< 0.013 J	< 0.013 J	< 0.013	< 0.013	< 0.013	< 0.013 J	< 0.013 J	< 0.013 J	< 0.013 J	< 0.013 J	< 0.013 J
8081A	Toxaphene	8001-35-2	UG/L	3		0.061	< 0.37	< 0.37 J	< 0.37 J	< 0.37 J	< 0.37 J	< 0.37	< 0.37	< 0.37	< 0.37 J	< 0.37 J	< 0.37 J	< 0.37 J	< 0.37 J	< 0.37 J
	Herbicides																			
8151A	Dinoseb	88-85-7	UG/L	7		37	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24
	Volatile Organic Compounds (VOCs)																			
8260B	1,1,1-Trichloroethane	71-55-6	UG/L	200		840	< 0.36	< 36	< 36	< 9	< 90	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 18	< 0.36	< 0.36	< 0.36
8260B	1,1,2,2-Tetrachloroethane	79-34-5	UG/L			0.055	< 0.31	< 31	< 31	< 7.8	< 78	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 16	< 0.31	< 0.31	< 0.31
8260B	1,1,2-Trichloroethane	79-00-5	UG/L	5		0.2	< 0.35	< 35	< 35	< 8.8	< 88	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 18	< 0.35	< 0.35	< 0.35
8260B	1,1-Dichloroethane	75-34-3	UG/L			1200	< 0.37	< 37	< 37	< 9.4	< 94	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 19	< 0.37	< 0.37	< 0.37
8260B	1,1-Dichloroethene	75-35-4	UG/L	7		340	< 0.43	< 43	< 43	< 11	< 110	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 21	< 0.43	< 0.43	< 0.43

Table 10
Fall 2008 Groundwater Sampling Analytical Results
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Primary Drinking Water Std (ug/L)	Secondary Drinking Water Std (ug/L)	TapWater MSSL (ug/l)	OFF-MW-5LA 9/26/2008	OFF-MW-6UA 9/27/2008	DUP3KAT 9/27/2008	OFF-MW-6MA 9/27/2008	OFF-MW-6LA 9/27/2008	OFF-MW-7UA 9/26/2008	OFF-MW-7MA 9/26/2008	OFF-MW-7LA 9/26/2008	OFF-MW-8UA 9/28/2008	OFF-MW-8MA 9/28/2008	OFF-MW-8LA 9/28/2008	OFF-MW-9UA 11/6/2008	OFF-MW-9MA 11/6/2008	OFF-MW-9LA 11/6/2008
8260B	1,2-Dibromoethane (EDB)	106-93-4	UG/L	0.05		0.0056	< 0.3	< 30	< 30	< 7.5	< 75	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 15	< 0.3	< 0.3	< 0.3
8260B	1,2-Dichlorobenzene	95-50-1	UG/L	600		49	< 0.43	< 43	< 43	< 11	< 110	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 22	< 0.43	< 0.43	< 0.43
8260B	1,2-Dichloroethane	107-06-2	UG/L	5		0.12	< 0.39	4800	4900	18000	19000	49	52	48	0.85 J	1.3	3000	< 0.39	< 0.39	< 0.39
8260B	1,2-Dichloroethene (total)	540-59-0	UG/L				< 0.73	< 73	< 73	< 18	< 180	< 0.73	< 0.73	< 0.73	< 0.73	< 0.73	< 37	< 0.73	< 0.73	< 0.73
8260B	1,2-Dichloropropane	78-87-5	UG/L	5		0.17	< 0.37	< 37	< 37	< 9.3	< 93	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 19	< 0.37	< 0.37	< 0.37
8260B	1,3-Dichlorobenzene	541-73-1	UG/L			15	< 0.39	< 39	< 39	< 9.6	< 96	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 19	< 0.39	< 0.39	< 0.39
8260B	1,4-Dichlorobenzene	106-46-7	UG/L	75		0.47	< 0.38	< 38	< 38	< 9.4	< 94	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 19	< 0.38	< 0.38	< 0.38
8260B	2-Butanone (MEK)	78-93-3	UG/L			7100	< 0.84	< 84	< 84	< 21	< 210	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84	< 42	3.2 J	3.2 J	3.7 J
8260B	2-Chloroethyl vinyl ether	110-75-8	UG/L				< 0.62	< 62	< 62	< 16	< 160	< 0.62	< 0.62	< 0.62	< 0.62	< 0.62	< 31	< 0.62	< 0.62	< 0.62
8260B	2-Hexanone	591-78-6	UG/L				0.6 J	< 27	< 27	< 6.7	< 67	0.6 J	0.53 J	0.46 J	1.3 J	1.1 J	< 13	7.6	7.6	13
8260B	4-Methyl-2-pentanone (MIBK)	108-10-1	UG/L			2000	< 0.42	< 42	< 42	< 10	< 100	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 21	< 0.42	< 0.42	< 0.42
8260B	Acetone	67-64-1	UG/L			5500	< 0.82	< 82	< 82	< 20	< 200	< 0.82	< 0.82	< 0.82	5.0 UB	5.0 UB	< 41	8.1 UB	8.1 UB	9.3 UB
8260B	Benzene	71-43-2	UG/L	5		0.35	< 0.39	< 39	< 39	< 9.8	< 98	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 20	< 0.39	< 0.39	< 0.39
8260B	Bromobenzene	108-86-1	UG/L			23	< 0.39	< 39	< 39	< 9.9	< 99	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 20	< 0.39	< 0.39	< 0.39
8260B	Bromochloromethane	74-97-5	UG/L				< 0.37	< 37	< 37	< 9.2	< 92	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 18	< 0.37	< 0.37	< 0.37
8260B	Bromodichloromethane	75-27-4	UG/L			0.18	< 0.37	< 37	< 37	< 9.2	< 92	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 18	< 0.37	< 0.37	< 0.37
8260B	Bromoform	75-25-2	UG/L			8.5	< 0.27	< 27	< 27	< 6.7	< 67	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 13	< 0.27	< 0.27	< 0.27
8260B	Bromomethane	74-83-9	UG/L			8.7	< 0.72	< 72	< 72	< 18	< 180	< 0.72	< 0.72	< 0.72	< 0.72	< 0.72	< 36	< 0.72	< 0.72	< 0.72
8260B	Carbon disulfide	75-15-0	UG/L			1000	< 0.38	< 38	< 38	< 9.6	< 96	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 19	1.1	1.1	< 0.38
8260B	Carbon tetrachloride	56-23-5	UG/L	5		0.17	< 0.41	< 41	< 41	< 10	< 100	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 20	< 0.41	< 0.41	< 0.41
8260B	Chlorobenzene	108-90-7	UG/L	100		91	< 0.33	< 33	< 33	< 8.3	< 83	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 17	< 0.33	< 0.33	< 0.33
8260B	Chloroethane	75-00-3	UG/L			3.9	< 0.45	< 45	< 45	< 11	< 110	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 22	< 0.45	< 0.45	< 0.45
8260B	Chloroform	67-66-3	UG/L			0.17	< 0.35	< 35	< 35	< 8.7	< 87	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 17	< 0.35	< 0.35	0.50 J
8260B	Chloromethane	74-87-3	UG/L			2.1	< 0.48	< 48	< 48	< 12	< 120	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 24	< 0.48	< 0.48	< 0.48
8260B	cis-1,2-Dichloroethene	156-59-2	UG/L	70		61	< 0.37	< 37	< 37	< 9.2	< 92	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 18	< 0.37	< 0.37	< 0.37
8260B	cis-1,3-Dichloropropene	10061-01-5	UG/L			0.4	< 0.31	< 31	< 31	< 7.7	< 77	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 15	< 0.31	< 0.31	< 0.31
8260B	Dibromochloromethane	124-48-1	UG/L			0.13	< 0.28	< 28	< 28	< 7	< 70	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 14	< 0.28	< 0.28	< 0.28
8260B	Dibromomethane	74-95-3	UG/L			61	< 0.41	< 41	< 41	< 10	< 100	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 20	< 0.41	< 0.41	< 0.41
8260B	Ethylbenzene	100-41-4	UG/L	700		1300	< 0.42	< 42	< 42	< 10	< 100	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 21	< 0.42	< 0.42	< 0.42
8260B	Methylene chloride	75-09-2	UG/L	5		4.3	< 0.42	< 42	< 42	< 11	< 110	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 21	< 0.42	< 0.42	< 0.42
8260B	m-Xylene & p-Xylene	136777-61-2	UG/L				< 0.83	< 83	< 83	< 21	< 210	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 41	< 0.83	< 0.83	< 0.83
8260B	o-Xylene	95-47-6	UG/L			1400	< 0.39	< 39	< 39	< 9.7	< 97	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 19	< 0.39	< 0.39	< 0.39
8260B	Styrene	100-42-5	UG/L	100		1600	< 0.31	< 31	< 31	< 7.8	< 78	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 16	< 0.31	< 0.31	< 0.31
8260B	Tetrachloroethene	127-18-4	UG/L	5		0.11	< 0.4	< 40	< 40	< 9.9	< 99	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 20	< 0.4	< 0.4	< 0.4
8260B	Toluene	108-88-3	UG/L	1000		2300	< 0.39	< 39	< 39	< 9.8	< 98	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 20	< 0.39	< 0.39	< 0.39
8260B	trans-1,2-Dichloroethene	156-60-5	UG/L	100		110	< 0.37	< 37	< 37	< 9.3	< 93	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 19	< 0.37	< 0.37	< 0.37
8260B	trans-1,3-Dichloropropene	10061-02-6	UG/L			0.4	< 0.21	< 21	< 21	< 5.2	< 52	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 10	< 0.21	< 0.21	< 0.21
8260B	Trichloroethene	79-01-6	UG/L	5		0.028	< 0.45	< 45	< 45	< 11	< 110	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 22	< 0.45	< 0.45	< 0.45
8260B	Trichlorofluoromethane	75-69-4	UG/L			1300	< 0.47	< 47	< 47	< 12	< 120	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 24	< 0.47	< 0.47	< 0.47
8260B	Vinyl acetate	108-05-4	UG/L			410	< 0.29	< 29	< 29	< 7.3	< 73	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 15	< 0.29	< 0.29	< 0.29
8260B	Vinyl chloride	75-01-4	UG/L	2		0.015	< 0.4	< 40	< 40	< 10	< 100	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 20	< 0.4	< 0.4	< 0.4
8260B	Xylenes (total)	1330-20-7	UG/L	10000		200	< 1.2	< 120	< 120	< 30	< 300	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 60	< 1.2	< 1.2	< 1.2
Semivolatile Organic Compounds (SVOCs)																				
8270C	1,2,4-Trichlorobenzene	120-82-1	UG/L	70		8.2	< 0.8	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.82	< 0.81	< 0.81	< 0.8	< 0.81	< 0.81	< 0.84
8270C	1,2-Dichlorobenzene	95-50-1	UG/L	600		49	< 0.92	< 0.93	< 0.94	< 0.93	< 0.93	< 0.94	< 0.94	< 0.95	< 0.94	< 0.93	< 0.92	< 0.93	< 0.93	< 0.97
8270C	1,3-Dichlorobenzene	541-73-1	UG/L			15	< 0.94	< 0.95	< 0.96	< 0.95	< 0.95	< 0.96	< 0.96	< 0.97	< 0.96	< 0.95	< 0.94	< 0.95	< 0.95	< 0.99
8270C	1,4-Dichlorobenzene	106-46-7	UG/L	75		0.47	< 0.77	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.78	< 0.79	< 0.78	< 0.78	< 0.77	< 0.78	< 0.78	< 0.81
8270C	2,4,5-Trichlorophenol	95-95-4	UG/L			3700	< 0.95	< 0.96	< 0.97	< 0.96	< 0.96	< 0.97	< 0.97	< 0.98	< 0.97	< 0.96	< 0.95	< 0.96	< 0.96	< 1
8270C	2,4,6-Trichlorophenol	88-06-2	UG/L			6.1	< 1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1	< 1.1	< 1.1	< 1.1
8270C	2,4-Dichlorophenol	120-83-2	UG/L			110	< 0.98	< 0.99	< 1	< 0.99	< 0.99	< 1	< 1	< 1	< 1	< 0.99	< 0.98	< 0.99	< 0.99	< 1
8270C	2,4-Dimethylphenol	105-67-9	UG/L			730	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.9	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.9
8270C	2,4-Dinitrophenol	51-28-5	UG/L			73	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.7	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.7
8270C	2,4-Dinitrotoluene	121-14-2	UG/L			73	< 2.7	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.7	< 2.8	< 2.8	< 2.9
8270C	2,6-Dinitrotoluene	606-20-2	UG/L			37	< 0.97	< 0.98	< 1	< 0.98	< 0.98	< 1	< 1	< 1	< 1	< 0.98	< 0.97	< 0.98	< 0.98	< 1
8270C	2-Chloronaphthalene	91-58-7	UG/L			490	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5
8270C	2-Chlorophenol	95-57-8	UG/L			30	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5

Table 10
Fall 2008 Groundwater Sampling Analytical Results
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	CASRN	Units	Primary Drinking Water Std (ug/L)	Secondary Drinking Water Std (ug/L)	TapWater MSSL (ug/l)	OFF-MW-5LA 9/26/2008	OFF-MW-6UA 9/27/2008	DUP3KAT 9/27/2008	OFF-MW-6MA 9/27/2008	OFF-MW-6LA 9/27/2008	OFF-MW-7UA 9/26/2008	OFF-MW-7MA 9/26/2008	OFF-MW-7LA 9/26/2008	OFF-MW-8UA 9/28/2008	OFF-MW-8MA 9/28/2008	OFF-MW-8LA 9/28/2008	OFF-MW-9UA 11/6/2008	OFF-MW-9MA 11/6/2008	OFF-MW-9LA 11/6/2008
8270C	2-Methylnaphthalene	91-57-6	UG/L				< 0.92	< 0.93	< 0.94	< 0.93	< 0.93	< 0.94	< 0.94	< 0.95	< 0.94	< 0.93	< 0.92	< 0.93	< 0.93	< 0.97
8270C	2-Methylphenol	95-48-7	UG/L			1800	< 1.7	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.7	< 1.8	< 1.8	< 1.8
8270C	2-Nitroaniline	88-74-4	UG/L			110	< 1.1	< 1.1	< 1.2	< 1.1	< 1.1	< 1.2	< 1.2	< 1.2	< 1.2	< 1.1	< 1.1	< 1.1	< 1.1	< 1.2
8270C	2-Nitrophenol	88-75-5	UG/L				< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1.1
8270C	3,3'-Dichlorobenzidine	91-94-1	UG/L			0.15	< 1.6	< 1.6	< 1.7	< 1.6	< 1.6	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6	< 1.7
8270C	3,4-Dichloroaniline	95-76-1	UG/L				< 0.97	< 0.98	< 1	< 0.98	< 0.98	< 1	< 1	< 1	< 1	< 0.98	< 0.97	< 0.98	< 0.98	< 1
8270C	3-Methylphenol & 4-Methylphenol	65794-96-9	UG/L			180	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.6
8270C	3-Nitroaniline	99-09-2	UG/L				< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
8270C	4,6-Dinitro-2-methylphenol	534-52-1	UG/L				< 3.4	< 3.4	< 3.5	< 3.4	< 3.4	< 3.5	< 3.5	< 3.5	< 3.5	< 3.4	< 3.4	< 3.4	< 3.4	< 3.6
8270C	4-Bromophenyl phenyl ether	101-55-3	UG/L				< 0.89	< 0.9	< 0.91	< 0.9	< 0.9	< 0.91	< 0.91	< 0.91	< 0.91	< 0.9	< 0.89	< 0.9	< 0.9	< 0.93
8270C	4-Chloro-3-methylphenol	59-50-7	UG/L				< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1.1	< 1	< 1	< 1	< 1	< 1	< 1.1
8270C	4-Chloroaniline	106-47-8	UG/L			150	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.7
8270C	4-Chlorophenyl phenyl ether	7005-72-3	UG/L				< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
8270C	4-Nitroaniline	100-01-6	UG/L				< 1	< 1	< 1.1	< 1	< 1	< 1.1	< 1.1	< 1.1	< 1.1	< 1	< 1	< 1	< 1	< 1.1
8270C	4-Nitrophenol	100-02-7	UG/L			290	< 3.9	< 3.9	< 4	< 3.9	< 3.9	< 4	< 4	< 4	< 4	< 3.9	< 3.9	< 3.9	< 3.9	< 4.1
8270C	Acenaphthene	83-32-9	UG/L			370	< 1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1	< 1.1	< 1.1	< 1.1
8270C	Acenaphthylene	208-96-8	UG/L				< 0.86	< 0.87	< 0.88	< 0.87	< 0.87	< 0.88	< 0.88	< 0.89	< 0.88	< 0.87	< 0.86	< 0.87	< 0.87	< 0.9
8270C	Aniline	62-53-3	UG/L			12	< 1.9	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 1.9	< 2	< 2	< 2
8270C	Anthracene	120-12-7	UG/L			1800	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Benzo(a)anthracene	56-55-3	UG/L			0.03	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Benzo(a)pyrene	50-32-8	UG/L	0.2		0.003	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Benzo(b)fluoranthene	205-99-2	UG/L			0.03	< 0.75	< 0.76	< 0.76	< 0.76	< 0.76	< 0.76	< 0.76	< 0.77	< 0.76	< 0.76	< 0.75	< 0.76	< 0.76	< 0.79
8270C	Benzo(ghi)perylene	191-24-2	UG/L				< 0.72	< 0.73	< 0.74	< 0.73	< 0.73	< 0.74	< 0.74	< 0.75	< 0.74	< 0.73	< 0.72	< 0.73	< 0.73	< 0.76
8270C	Benzo(k)fluoranthene	207-08-9	UG/L			0.3	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
8270C	Benzoic acid	65-85-0	UG/L			150000	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13
8270C	Benzyl alcohol	100-51-6	UG/L			11000	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6
8270C	bis(2-Chloroethoxy)methane	111-91-1	UG/L				< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	bis(2-Chloroethyl) ether	111-44-4	UG/L			0.0098	< 0.52	< 0.52	< 0.53	< 0.52	< 0.52	< 0.53	0.7 J	< 0.53	< 0.53	< 0.52	< 0.52	< 0.52	< 0.52	< 0.54
8270C	bis(2-Chloroisopropyl) ether	108-60-1	UG/L			0.27	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
8270C	bis(2-Ethylhexyl) phthalate	117-81-7	UG/L	6		4.8	< 2.6	< 2.6	< 2.7	< 2.6	< 2.6	< 2.7	< 2.7	< 2.7	< 2.7	< 2.6	< 2.6	3.0 J	5.9 J	< 2.7
8270C	Butyl benzyl phthalate	85-68-7	UG/L			7300	< 0.94	< 0.95	< 0.96	< 0.95	< 0.95	< 0.96	< 0.96	< 0.97	< 0.96	< 0.95	< 0.94	< 0.95	< 0.95	< 0.99
8270C	Chrysene	218-01-9	UG/L			3	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1.1	< 1	< 1	< 1	9.6 UB	9.6 UB	10 UB
8270C	Dibenz(a,h)anthracene	53-70-3	UG/L			0.003	< 0.96	< 0.97	< 0.98	< 0.97	< 0.97	< 0.98	< 0.98	< 0.99	< 0.98	< 0.97	< 0.96	< 0.97	< 0.97	< 1
8270C	Dibenzofuran	132-64-9	UG/L			12	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1.1
8270C	Diethyl phthalate	84-66-2	UG/L			29000	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5
8270C	Dimethyl phthalate	131-11-3	UG/L			370000	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.3
8270C	Di-n-butyl phthalate	84-74-2	UG/L			3700	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	1.1 J
8270C	Di-n-octyl phthalate	117-84-0	UG/L				< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Dinoseb	88-85-7	UG/L	7		37	< 0.39	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.39	< 0.4	< 0.4	< 0.41
8270C	Fluoranthene	206-44-0	UG/L			1500	< 0.87	< 0.88	< 0.89	< 0.88	< 0.88	< 0.89	< 0.89	< 0.9	< 0.89	< 0.88	< 0.87	< 0.88	< 0.88	< 0.92
8270C	Fluorene	86-73-7	UG/L			240	< 0.96	< 0.97	< 0.98	< 0.97	< 0.97	< 0.98	< 0.98	< 0.99	< 0.98	< 0.97	< 0.96	< 0.97	< 0.97	< 1
8270C	Hexachlorobenzene	118-74-1	UG/L	1		0.042	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5
8270C	Hexachlorobutadiene	87-68-3	UG/L			0.86	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.3
8270C	Hexachlorocyclopentadiene	77-47-4	UG/L	50		220	< 3.2	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.2	< 3.3	< 3.3	< 3.4
8270C	Hexachloroethane	67-72-1	UG/L			4.8	< 0.89	< 0.9	< 0.91	< 0.9	< 0.9	< 0.91	< 0.91	< 0.92	< 0.91	< 0.9	< 0.89	< 0.9	< 0.9	< 0.94
8270C	Indeno(1,2,3-cd)pyrene	193-39-5	UG/L			0.03	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	Isophorone	78-59-1	UG/L			71	< 1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1	< 1.1	< 1.1	< 1.1
8270C	Naphthalene	91-20-3	UG/L			6.2	< 0.83	< 0.84	< 0.85	< 0.84	< 0.84	< 0.85	< 0.85	< 0.86	< 0.85	< 0.84	< 0.83	< 0.84	< 0.84	< 0.88
8270C	Nitrobenzene	98-95-3	UG/L			3.4	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
8270C	N-Nitrosodi-n-propylamine	621-64-7	UG/L			0.0096	< 0.99	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 0.99	< 1	< 1	< 1
8270C	N-Nitrosodiphenylamine	86-30-6	UG/L			14	< 0.89	< 0.9	< 0.91	< 0.9	< 0.9	< 0.91	< 0.91	< 0.92	< 0.91	< 0.9	< 0.89	< 0.9	< 0.9	< 0.94
8270C	Pentachlorophenol	87-86-5	UG/L	1		0.56	< 5.2	< 5.2	< 5.3	< 5.2	< 5.2	< 5.3	< 5.3	< 5.3	< 5.3	< 5.2	< 5.2	< 5.2	< 5.2	< 5.4
8270C	Phenanthrene	85-01-8	UG/L				< 0.95	< 0.96	< 0.97	< 0.96	< 0.96	< 0.97	< 0.97	< 0.98	< 0.97	< 0.96	< 0.95	< 0.96	< 0.96	< 1
8270C	Phenol	108-95-2	UG/L			11000	< 2	< 2	< 2.1	< 2	< 2	< 2.1	< 2.1	< 2.1	< 2.1	< 2	< 2	< 2	< 2	< 2.1
8270C	Propanil	709-98-8	UG/L			180	< 0.75	< 0.75	< 0.76	< 0.75	< 0.75	< 0.76	< 0.76	< 0.77	< 0.76	< 0.75	< 0.75	< 0.75	< 0.75	< 0.79
8270C	Pyrene	129-00-0	UG/L			180	< 0.87	< 0.88	< 0.89	< 0.88	< 0.88	< 0.89	< 0.89	< 0.9	< 0.89	< 0.88	< 0.87	< 0.88	< 0.88	< 0.92

Table 10
Fall 2008 Groundwater Sampling Analytical Results
Cedar Chemical Corporation
Helena-West Helena, Arkansas
Project 13636

Notes:

--	No data available for reported analyte
<	The analyte was not detected at the concentration given.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
UB	Not detected substantially above the concentration reported in the laboratory or field blanks. For organics - 5X (10X for common laboratory contaminants) or for metals 10X. Data point considered non-detect at the reported value.
UA	Upper Alluvial Aquifer
MA	Middle Alluvial Aquifer
LA	Lower Alluvial Aquifer

TABLE 11

Comparison of Historical Versus Current Groundwater Concentrations

Table 11
Historical Comparison of Detections in Groundwater
Alluvial Aquifer
Cedar Chemical Corporation
Helena-West Helena, Arkansas

CCR		FI (Sept. 08 Data)	
Analyte	**Maximum observed concentration (ug/l)**	**Analyte**	**Maximum observed concentration (ug/l)**
Pesticides/Polychlorinated Biphenyls		**Pesticides/Polychlorinated Biphenyls**	
4,4'-DDT	0.074	~~4,4'-DDT~~	
4,4'-DDD		4,4'-DDD	0.041 J
Aldrin		Aldrin	0.053 J
Alpha-BHC	0.07	alpha-BHC	0.01
alpha-Chlordane		alpha-Chlordane	0.0098
Aroclor-1016	0.07	~~Aroclor-1016~~	
beta-BHC		beta-BHC	0.046 J
Dieldrin	0.03	~~Dieldrin~~	
Dinoseb	980	Dinoseb	27
Endrin		Endrin	0.0081
gamma-BHC (Lindane)	0.2	gamma-BHC (Lindane)	0.059 J
Heptachlor	0.2	Heptachlor	0.076 J
Heptachlor epoxide		Heptachlor epoxide	0.098 J
Methoxychlor	0.13	Methoxychlor	0.018
Semivolatile Organic Compounds		**Semivolatile Organic Compounds**	
1,2-Dichlorobenzene	6800	1,2-Dichlorobenzene	1100
1,2-Dichloropropane	0.018	1,2-Dichloropropane	2.1
1,3-Dichlorobenzene	310	1,3-Dichlorobenzene	90
1,4-Dichlorobenzene	11	1,4-Dichlorobenzene	0.96 J
2,4-Dichlorophenol	57	2,4-Dichlorophenol	39
2,6-Dinitrotoluene	13	~~2,6-Dinitrotoluene~~	
2-Chloronaphthalene	13	2-Chloronaphthalene	13
2-Chlorophenol	110	2-Chlorophenol	3.6 J
2-Butanone (MEK)		2-Butanone (MEK)	3.7 J
2-Methylphenol (o-Cresol)	1200	2-Methylphenol (o-Cresol)	41
2-Hexanone		2-Hexanone	13
4-Chloroaniline	8700	4-Chloroaniline	2100 J
4-Methylphenol (p-Cresol)	660	3-Methylphenol & 4-Methylphenol	3.5 J
4-Methyl-2-Pentanone (MIBK)	2500	4-Methyl-2-pentanone (MIBK)	1.2
4-Nitrophenol	250	~~4-Nitrophenol~~	
Benzoic acid	1400	~~Benzoic acid~~	
Benzyl alcohol	110	~~Benzyl alcohol~~	
bis(2-Chloroethyl)ether	180	bis(2-Chloroethyl) ether	41
bis(2-Ethylhexyl)phthalate (BEHP)	31	bis(2-Ethylhexyl)phthalate (BEHP)	300
Carbon disulfide		Carbon disulfide	1.1
Diethylphthalate	1	~~Diethylphthalate~~	
Dimethylphthalate	6.3	~~Dimethylphthalate~~	
Di-n-butylphthalate	6.3	Di-n-butyl phthalate	1.8 J
Fluoranthene	980	~~Fluoranthene~~	
Isophorone	350	Isophorone	1.3 J
Naphthalene	6	~~Naphthalene~~	
Nitrobenzene	4	~~Nitrobenzene~~	
N-Nitroso-di-n-propylamine	740	~~N-Nitroso-di-n-propylamine~~	
Phenol	3200	Phenol	5.4 J
Propanil	700	Propanil	49
Volatile Organic Compounds		**Volatile Organic Compounds**	
1,1,2-Trichloroethene		1,1,2-Trichloroethene	0.53 J
1,1,2-Trichloroethane	27	~~1,1,2-Trichloroethane~~	
1,2,4-Trichlorobenzene		1,2,4-Trichlorobenzene	5.7 J
1,1-Dichloroethane	1.4	1,1-Dichloroethene	1.3
1,2-Dichloroethane	92000	1,2-Dichloroethane	19000
1,2-Dichloropropane	43	~~1,2-Dichloropropane~~	
3,4-Dichloroaniline		3,4-Dichloroaniline	17000
Acetone	2000	~~Acetone~~	
Aniline		Aniline	18
Benzene	810	Benzene	21
Bromodichloromethane	6.1	~~Bromodichloromethane~~	
Bromoform	11	~~Bromoform~~	
Chlorobenzene	470	Chlorobenzene	310
Chloroethane	170	Chloroethane	11
Chloroform	340	Chloroform	0.43
Chloromethane	55	Chloromethane	1.7 J
Ethylbenzene	2000	Ethylbenzene	2.4
Methylene chloride	2000	Methylene chloride	0.8 J
o-Xylene	2000	o-Xylene	0.49
Toluene	760000	Toluene	0.71 J
trans-1,2-Dichloroethene	32	~~trans-1,2-Dichloroethene~~	
Trichloroethene	10	~~Trichloroethene~~	
Vinyl acetate	10	~~Vinyl acetate~~	
Vinyl chloride	40	Vinyl chloride	10

~~analyte:~~ Detected in CCR but not in FI
analyte: Detected in FI but not in CCR
compound that has decreased in maximum concentration in the FI

TABLE 12

Background Data for Metals

Table 12
Metals Background Concentration Comparison Analytical Data
Spring 2008
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	Units	Background Low End (mg/kg)	Background High End (mg/kg)	USEPA Risk-Based Value Residential [1]	USEPA Risk-Based Value Industrial [1]	DAF1 (mg/kg)	DPT-0 (0-4') 3/27/2008	DPT-0 (12-16') 3/27/2008	DPT-1 (0-4') 3/26/2008	DPT-1 (12-16') 3/26/2008	DPT-10 (0-4') 3/27/2008	DPT-10 (12-16') 3/27/2008	DPT-11 (0-4') 3/27/2008	DPT-11 (12-16') 3/27/2008	DPT-12 (0-4') 3/27/2008	DPT-12 (12-16') 3/27/2008	DPT-2 (0-4') 3/26/2008	DPT-2 (12-16') 3/26/2008
	Metals																		
6020	Aluminum	MG/KG	9794	11478	77,000	990,000	NA	12200	7470	13400	11200	12300	9440	14400	8510	17200	12000	7320	10700
6020	Antimony	MG/KG	0.093	0.231	31	410	0.3	0.19 UB	0.31	0.37	0.45	0.25	0.4	0.33	0.3	0.17	0.18	0.2 UB	0.48
6020	Arsenic	MG/KG	6.1	9.0	0.39	1.60	1	5.3	9.9	4.7	9.9	128	14.6	6.7	6	5.9	9.2	4.2	10.4
6020	Barium	MG/KG	133	182	15,000	190,000	82	107	81.3	272	216	87.6	147	77.4	138	133	192	68.4	196
6020	Beryllium	MG/KG	0.49	0.59	160	2,000	3	0.49	0.43	0.56	0.59	0.46	0.48	0.51	0.39	0.62	0.57	0.34	0.55
6020	Cadmium	MG/KG	0.16	0.27	10	810	0.4	0.082	0.3	0.3	0.12	0.093	0.21	0.08	0.27	0.093	0.14	0.13	0.54
6020	Calcium	MG/KG	1931	2497	NA	NA	NA	13200	2490	4390	2170	1810	2930	1350	2360	2300	1920	17600	1580
6020	Chromium	MG/KG	13.9	16.6	1.2E5 (Cr3)	1.5E6 (Cr3)	2	19.3 JH	14.4 JH	14.1 JH	13.6 JH	20.8 JH	14.4 JH	14.9 JH	12.3 JH	16.9	15	22.9 JH	14.8 JH
6020	Cobalt	MG/KG	6.5	8.6	NA	NA	NA	10.3	9.8	12.1	4.9	7.5	8.3	8.3	7.4	7.9	6.6	5.8	8.7
6020	Copper	MG/KG	12.0	14.3	3,100	41,000	NA	15.2	14.9	12.4	11.4	11.4	14.9	13.2	12.2	13	10.6	9.2	17.8
6020	Iron	MG/KG	16500	20806	55,000	720,000	NA	16900	18200	15800	19700	18200	23400	18900	17000	19500	23400	10400	21300
6020	Lead	MG/KG	10.1	13.1	400	NA	NA	8.5	10.4	14.2	12.2	10	11.2	11.2	9.4	12	11.4	7.6	12.7
6020	Magnesium	MG/KG	2043	2662	NA	NA	NA	1820	2120	1580	2550	1840	2670	2080	2220	2190	2640	1820	2580
6020	Manganese	MG/KG	487	743	1,800	23,000	NA	519	594	2690	299	587	559	624	985	655	311	304	281
6020	Nickel	MG/KG	16.0	19.2	1,600	20,000	7	21.5	19.8	17.9	16.5	16.4	17.5	17.9	17.4	17.3	18.9	28.6	21.3
6020	Potassium	MG/KG	1063.8	1276.6	NA	NA	NA	1020 JH	921 JH	1100 JH	1230 JH	1070 JH	1140 JH	1020 JH	972 JH	1350	1450	737 JH	1160 JH
6020	Selenium	MG/KG	0.16	0.21	390	5100	0.3	0.15	< 0.13	< 0.15	< 0.14	0.2	< 0.15	< 0.15	< 0.15	0.31	0.26	0.15	< 0.15
6020	Silver	MG/KG	0.022	0.052	390	5100	2	3.3	0.12	0.33	0.12	< 0.02	0.027	< 0.023	< 0.023	0.026	0.021	1.3	0.074
6020	Sodium	MG/KG	10.5	255.9	NA	NA	NA	115	100 J	763	1960	79.7 J	59.7 J	63.1 J	46.6 J	323	886	583	2260
6020	Thallium	MG/KG	0.247	0.309	5.1	66	0.4	0.2	0.27	0.31	0.35	0.23	0.29	0.25	0.25	0.29	0.34	0.12	0.35
6020	Vanadium	MG/KG	22.3	27.0	550	7,200	300	26	28.3	26.5	30.4	28.4	30.2	29.4	25.4	30.1	32.8	17.6	33.3
6020	Zinc	MG/KG	46.5	59.0	23,000	310,000	620	43.9	43.7	50.4	63.9	42.2	59.1	45.2	47.5	54.6	62.6	27.8	68.3
7471A	Mercury	MG/KG	0.017	0.027	6.7	28	0.1	0.021 J	0.025 J	0.016 J	0.027 J	0.011 J	0.026 J	0.02 J	0.026 J	0.015 J	0.0036 J	0.018 J	0.091 J

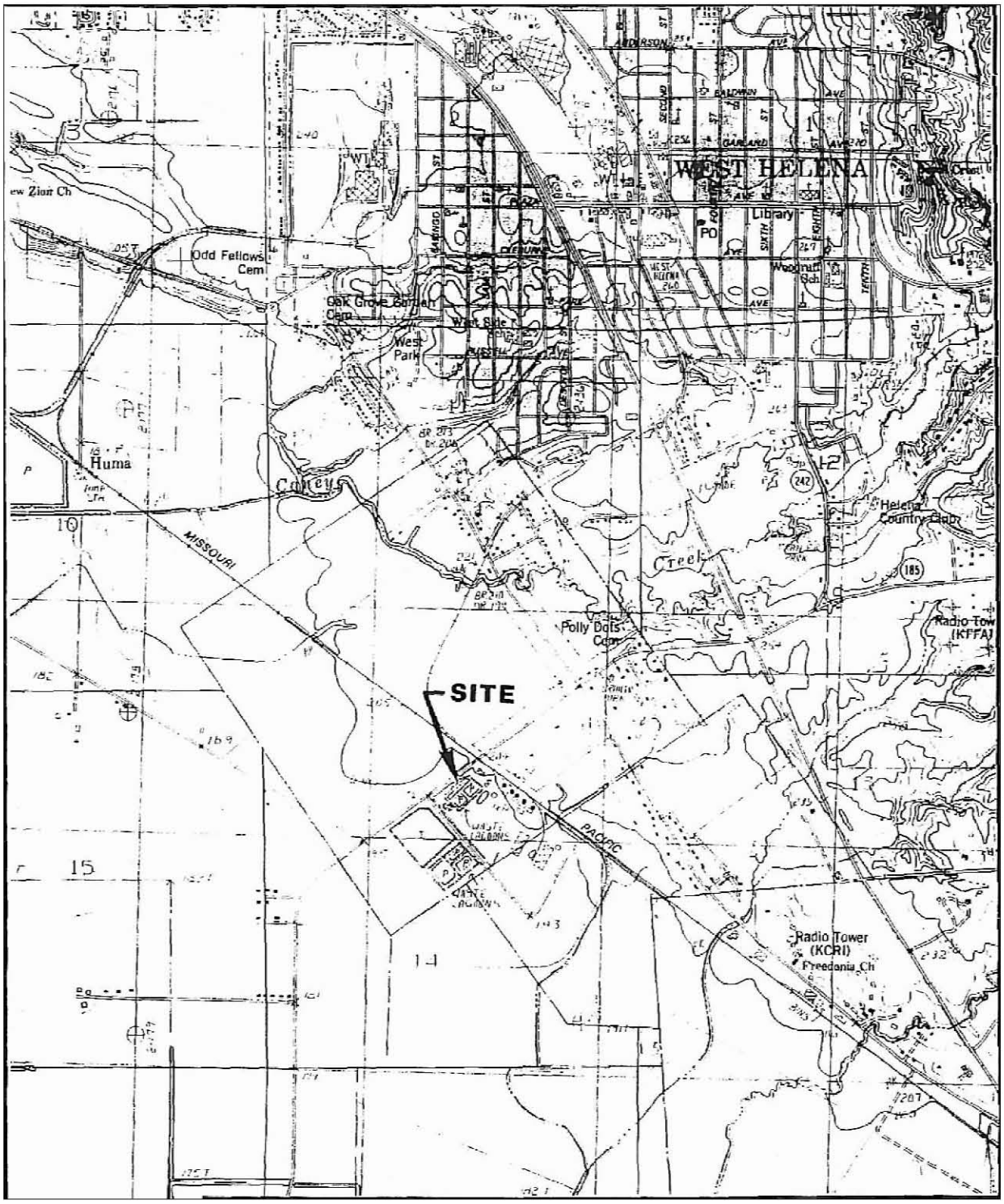
Analytical Method	Analyte	Units	Background Low End (mg/kg)	Background High End (mg/kg)	USEPA Risk-Based Value Residential [1]	USEPA Risk-Based Value Industrial [1]	DAF1 (mg/kg)	DPT-28(8-12') 3/29/2008	DPT-29(4-8') 3/29/2008	DPT-3 (0-4') 3/26/2008	DPT-3 (16-20') 3/26/2008	DPT-30(0-4') 3/29/2008	DPT-31(8-12') 3/29/2008	DPT-32(12-16') 3/29/2008	DPT-33 TW-7(8-12') 3/29/2008	DPT-34(4-8') 3/29/2008	DPT-35(12-16') 3/30/2008	DPT-36(4-8') 3/30/2008	DPT-37(4-8') 3/30/2008
	Metals																		
6020	Aluminum	MG/KG	9794	11478	77,000	990,000	NA	12200	15500	15700	7370	11700	13800	13800	13400	18400	11200	22200	17600
6020	Antimony	MG/KG	0.093	0.231	31	410	0.3	0.2	0.18	0.24	0.24	0.37	0.32	0.32	0.23	0.18	0.14	0.17	0.13
6020	Arsenic	MG/KG	6.1	9.0	0.39	1.60	1	9.3	8.1	78.7	8.3	32.3	8.4	9.6	6.7	5.2	8.5	8.9	5.5
6020	Barium	MG/KG	133	182	15,000	190,000	82	230	214	118	98.5	123	214	220	263	124	183	189	154
6020	Beryllium	MG/KG	0.49	0.59	160	2,000	3	0.45	0.64	0.54	0.44	0.47	0.6	0.6	0.56	0.51	0.39	0.77	0.62
6020	Cadmium	MG/KG	0.16	0.27	10	810	0.4	0.12	0.22	0.081	0.25	0.35	0.27	0.31	0.19	0.074	0.094	0.082	0.081
6020	Calcium	MG/KG	1931	2497	NA	NA	NA	3310	1970	2700	2620	20100	1970	2770	2090	2340	2170	1990	964
6020	Chromium	MG/KG	13.9	16.6	1.2E5 (Cr3)	1.5E6 (Cr3)	2	17.3 JH	17.3	17.1 JH	12.5 JH	28.3	16.2	16.9	15.8	19.5	16.4	23.1	19.4
6020	Cobalt	MG/KG	6.5	8.6	NA	NA	NA	6.7	9.1	8.2	7.6	6.7	8	8.6	7.5	7.7	5	8.1	7.9
6020	Copper	MG/KG	12.0	14.3	3,100	41,000	NA	17.1	16	15	13.5	12.8	14.4	15.1	12.8	12.9	13.3	18.7	14.3
6020	Iron	MG/KG	16500	20806	55,000	720,000	NA	22700	21600	20600	16600	16900	19300	22100	18400	19300	20500	24200	19000
6020	Lead	MG/KG	10.1	13.1	400	NA	NA	12.1	12.7	10.4	10.3	10.2	11.7	11.9	10.4	10.7	10.1	13.1	10
6020	Magnesium	MG/KG	2043	2662	NA	NA	NA	2450	3110	2240	2450	7030	2940	3150	2670	2510	2270	2970	2390
6020	Manganese	MG/KG	487	743	1,800	23,000	NA	529	883	616	503	420	870	845	712	481	402	607	673
6020	Nickel	MG/KG	16.0	19.2	1,600	20,000	7	18.7 JH	20.7	19.1	19.7	18	19	20.5	17.8	19.4	15.5	22.4	18.5
6020	Potassium	MG/KG	1063.8	1276.6	NA	NA	NA	1310	1650 JH	1230 JH	1000 JH	1480 JH	1630 JH	1750 JH	1460 JH	2050 JH	1390 JH	1720 JH	1470 JH
6020	Selenium	MG/KG	0.16	0.21	390	5100	0.3	0.14	0.35	< 0.14	< 0.15	0.34	0.32	0.2	0.15	0.26	0.14	0.46	0.34
6020	Silver	MG/KG	0.022	0.052	390	5100	2	< 0.022	< 0.024	0.12	< 0.024	< 0.021	0.026	< 0.022	< 0.019	< 0.021	< 0.022	< 0.023	< 0.02
6020	Sodium	MG/KG	10.5	255.9	NA	NA	NA	3620	128	174	183	145	228	150	269	57.3 J	323	149	89.7 J
6020	Thallium	MG/KG	0.247	0.309	5.1	66	0.4	0.35	0.37	0.27	0.25	0.26	0.35	0.37	0.31	0.29	0.28	0.39	0.31
6020	Vanadium	MG/KG	22.3	27.0	550	7,200	300	35.1	38.1	30.5	24.4	30.5	35.8	38.3	33.8	34.2	33.5	41.6	34.6
6020	Zinc	MG/KG	46.5	59.0	23,000	310,000	620	74.5	70.9	51.7	49.2	66.2	68.8	67.3	60.5	60.6	55.5	67.7	52
7471A	Mercury	MG/KG	0.017	0.027	6.7	28	0.1	0.013 J	0.03 J	0.017 J	0.021 J	0.028 J	0.036 J	0.023 J	0.034 J	0.015 J	0.0083 J	0.027 J	0.017 J

Table 12
Metals Background Concentration Comparison Analytical Data
Spring 2008
Cedar Chemical Corporation
Helena-West Helena, Arkansas

Analytical Method	Analyte	Units	Background Low End (mg/kg)	Background High End (mg/kg)	USEPA Risk-Based Value Residential [1]	USEPA Risk-Based Value Industrial [1]	DAF1 (mg/kg)	DPT-38(4-8') 3/30/2008	DPT-39(12-16') 3/30/2008	DPT-39(4-8') 3/30/2008	DPT-4 (0-4') 3/26/2008	DPT-40(0-4') 3/30/2008	DPT-5 (0-4') 3/26/2008	DPT-6 (0-4') 3/26/2008	DPT-7 (0-4') 3/27/2008	DPT-7 (12-16') 3/27/2008	DPT-8 (0-4') 3/27/2008	DPT-9 (0-4') 3/27/2008	DPT-9 (12-16') 3/27/2008
	Metals																		
6020	Aluminum	MG/KG	9794	11478	77,000	990,000	NA	12000	10700	22300	9170	12400	15600	14600	11700	8770	13100	15200	8510
6020	Antimony	MG/KG	0.093	0.231	31	410	0.3	0.26	0.64	0.15	0.23	0.18	0.28	0.36	0.27	0.29	0.19 UB	0.26	0.28
6020	Arsenic	MG/KG	6.1	9.0	0.39	1.60	1	8.6	5.3	8.6	4.7	7.7	6.5	6.7	6.4	8.7	4.9	7.1	8.6
6020	Barium	MG/KG	133	182	15,000	190,000	82	202	137	165	133	214	114	118	97.7	157	93.7	76.5	153
6020	Beryllium	MG/KG	0.49	0.59	160	2,000	3	0.61	0.5	0.8	0.38	0.59	0.48	0.6	0.44	0.46	0.4	0.52	0.42
6020	Cadmium	MG/KG	0.16	0.27	10	810	0.4	0.31	0.56	0.067	0.12	0.12	0.067	0.077	0.14	0.35	0.09	0.095	0.39
6020	Calcium	MG/KG	1931	2497	NA	NA	NA	6220	73700	1430	10200	2470	2440	1950	10100	2580	2180	6510	2570
6020	Chromium	MG/KG	13.9	16.6	1.2E5 (Cr3)	1.5E6 (Cr3)	2	18.9	18.5	21.5	11.5 JH	15.8	16.1 JH	15.3 JH	14.2 JH	13.4 JH	14.4 JH	15.8 JH	12.6 JH
6020	Cobalt	MG/KG	6.5	8.6	NA	NA	NA	10.3	6.9	7	5.7	6.6	7.1	7.5	7.2	7.9	6.1	7.7	8
6020	Copper	MG/KG	12.0	14.3	3,100	41,000	NA	17.8	14.6	19.1	10	13.7	14	14.5	13.1	13.2	10.7	13.2	13
6020	Iron	MG/KG	16500	20806	55,000	720,000	NA	21800	17100	25500	12800	19100	20400	19500	17900	19300	15900	20100	19000
6020	Lead	MG/KG	10.1	13.1	400	NA	NA	13.2	12.2	13.3	9.1	10.5	10.7	10.5	10.3	10.3	8.9	10.9	10.2
6020	Magnesium	MG/KG	2043	2662	NA	NA	NA	5520	15400	3120	4100	2270	2630	2310	3530	2600	1740	2570	2530
6020	Manganese	MG/KG	487	743	1,800	23,000	NA	669	363	486	483	548	562	568	546	841	502	596	841
6020	Nickel	MG/KG	16.0	19.2	1,600	20,000	7	23.6	19	24.2	13.9	16.1	18.1	18.6	17.1	19.3	16.4	18.1	18.8
6020	Potassium	MG/KG	1063.8	1276.6	NA	NA	NA	1620 JH	2110 JH	1870 JH	909 JH	1480 JH	1080 JH	1000 JH	1010 JH	1030 JH	1110 JH	1570 JH	1040 JH
6020	Selenium	MG/KG	0.16	0.21	390	5100	0.3	0.43	0.57	0.14	< 0.14	0.26	< 0.12	< 0.14	< 0.13	< 0.15	0.24	0.24	< 0.13
6020	Silver	MG/KG	0.022	0.052	390	5100	2	< 0.02	0.027	< 0.02	0.022	< 0.016	0.034	< 0.022	0.036	< 0.023	0.02	< 0.023	< 0.021
6020	Sodium	MG/KG	10.5	255.9	NA	NA	NA	259	189	281	26.5 J	343	93.1 J	61.6 J	15.7 J	49.1 J	< 7.3	< 8.4	54.5 J
6020	Thallium	MG/KG	0.247	0.309	5.1	66	0.4	0.37	0.25	0.4	0.19	0.3	0.27	0.28	0.26	0.28	0.2	0.26	0.28
6020	Vanadium	MG/KG	22.3	27.0	550	7,200	300	37.6	33.1	43	20	33.8	30.9	29.3	26.5	28.8	26.9	31.2	27.8
6020	Zinc	MG/KG	46.5	59.0	23,000	310,000	620	66.4	82	72.3	44	57	50.5	48.8	49.8	54.9	41	48.2	54.4
7471A	Mercury	MG/KG	0.017	0.027	6.7	28	0.1	0.023 J	0.018 J	0.014 J	0.018 J	0.021 J	0.014 J	0.016 J	0.022 J	0.026 J	0.016 J	0.0087 J	0.025 J

1. Oak Ridge National Laboratory, 2008, Regional Screening Levels for Chemical Contaminants at Superfund Sites, http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm, July.

-- No data available for reported analyte
< The analyte was not detected at the concentration given.
J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
JH The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample, with a high bias.
JL The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample, with a low bias.
UB Not detected substantially above the concentration reported in the laboratory or field blanks. For organics - 5X (10X for common laboratory contaminants) or for metals 10X. Data point considered non-detect at the reported value.
UBJ Not detected substantially above the concentration reported in the laboratory or field blanks. Data point considered non-detect and the reported value is an approximate.



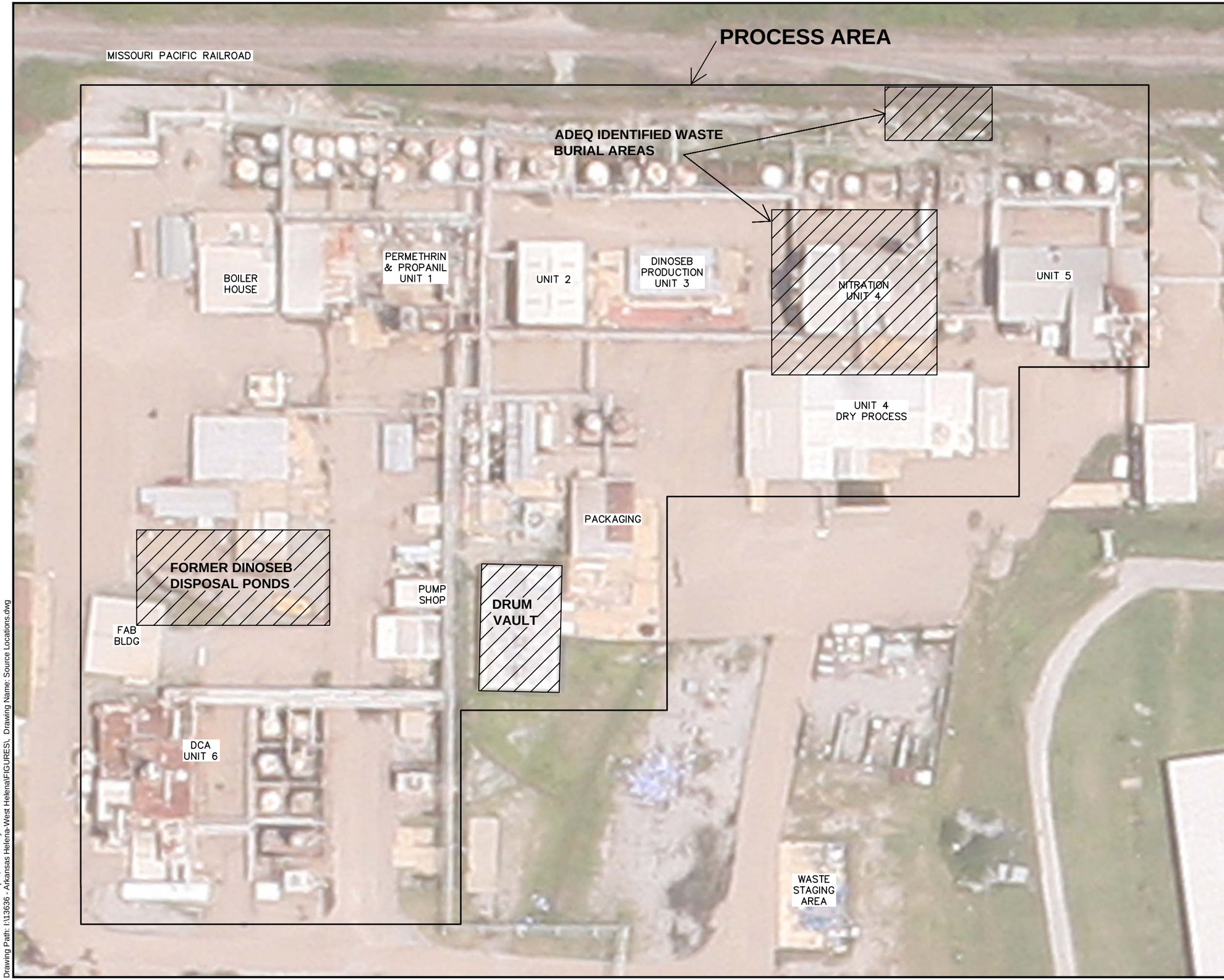
SOURCE: EnSafe, Phase II Investigation Report, 1995

SITE LOCATION MAP

Cedar Chemical
Helena-West Helena, Arkansas

AMEC Geomatrix | Project 13636 | Figure 1

I:\13636 - Arkansas Helena-West Helena\2007 CCR\FINAL FIGURES\ FIG 1 Site Location Map\FIG 1.dwg



EXPLANATION

Suspected Sources areas include:

- **Process Area**
- **Drum Vault**
- **Former Dinoseb Disposal Ponds**
- **ADEQ Identified Waste Burial Areas**

0 30 60

Approximate Scale in Feet

Suspected Source Areas

Cedar Chemical
Helena - West Helena, Arkansas

By: MLS	Date: 1/5/09	Project No. 13636
AMEC Geomatrix		Figure 2

Plot Date: 02/21/09 - 1:27pm, Plotted by: mike.schofield
Drawing Path: I:\13636 - Arkansas Helena-West Helena\FIGURES\, Drawing Name: Source Locations.dwg

EXPLANATION

⊕ CPT LOCATION

0 500
APPROXIMATE SCALE IN FEET

CPT BORING LOCATIONS

Cedar Chemical
Helena-West Helena, Arkansas

By: HCS	Date: 1/15/08	Project No. 13636 3
AMEC Geomatrix		Figure 6

1/06/09 CPT Locations.dwg

TEST HOLE 1 Water (µg/l)	7/9/2008
Aluminum	921
Arsenic	148
Iron	170000
Lead	27.7
Manganese	13200
alpha-BHC	0.25 J
1,2-Dichlorobenzene	54 J
1,3-Dichlorobenzene	62 J
1,4-Dichlorobenzene	650
Acetone	91000
Methylene chloride	53 J
Toluene	6200
1,2,4-Trichlorobenzene	620
1,2-Dichlorobenzene	62 J
1,3-Dichlorobenzene	72 J
1,4-Dichlorobenzene	790
2,4-Dimethylphenol	1300
2-Chlorophenol	41 J
Methylphenol	230 J
4-Chloroaniline	47000
Dinoseb	350 J
Phenol	13000
Propanil	2800

TW-8 Groundwater (µg/l)	4/22/2008
1,2-Dichlorobenzene	280
Methylene chloride	58
Toluene	2100

TEST HOLE 1 Soil (mg/kg)	7/9/2008
Antimony	0.45 B J
Arsenic	13.9
Chromium	7.6 J
Nickel	11.5
1,2,4-Trichlorobenzene	0.66
1,4-Dichlorobenzene	0.55
4-Chloroaniline	11

TW-5 Groundwater (µg/l)	4/22/2008
1,2-Dichlorobenzene	450
1,2-Dichloroethane	380
Acetone	18000
Methylene chloride	53

TEST HOLE 4 Soil (mg/kg)	7/9/2008
Arsenic	43.6
Chromium	4.6 J
Nickel	8.1
Methoxychlor	26
1,2-Dichlorobenzene	17
1,4-Dichlorobenzene	7.0 J
Acetone	270
Ethylbenzene	40
o-Xylene	21
Toluene	420
Xylenes (total)	140
Benzene, 1,2,4-trichloro-	42
1,2,4-Trichlorobenzene	3.6
1,2-Dichlorobenzene	0.98
1,4-Dichlorobenzene	0.50
Isophorone	0.42

TW-6 Groundwater (µg/l)	3/31/2008
Heptachlor epoxide	1.2 J
1,1,2-Trichloroethane	1.5
1,2-Dichlorobenzene	350
1,2-Dichloroethane	2100
1,2-Dichloropropane	20
1,4-Dichlorobenzene	10
Benzene	0.83 J
Carbon tetrachloride	1.6
Chloroform	66
Methylene chloride	6300
Vinyl chloride	1.1 J
2,4-Dinitrophenol	12000
Dinoseb	22000
Propanil	9300

TEST HOLE 3 Soil (mg/kg)	7/9/2008
Arsenic	8.2
Barium	1.26 J
Chromium	14.0 J
Nickel	19.9
Methoxychlor	36
1,2-Dichlorobenzene	3.5
Acetone	1300
Ethylbenzene	11
o-Xylene	27
Toluene	490
Xylenes (total)	120
1,2,4-Trichlorobenzene	5.2
1,2-Dichlorobenzene	1.6 J
1,4-Dichlorobenzene	0.43 J
Isophorone	1.1 J

TEST HOLE 2 Soil (mg/kg)	7/9/2008
Arsenic	2.9
Chromium	7.6 J
Nickel	12.8
Methoxychlor	910
Acetone	740
Toluene	510
Xylenes (total)	46 J
1,2,4-Trichlorobenzene	1.9
1,2-Dichlorobenzene	1.7
1,4-Dichlorobenzene	0.18 J
2-Methylphenol	0.89
4-Chloroaniline	5.0
Isophorone	0.27 J

TW-7 Groundwater (µg/l)	4/22/2008
1,2-Dichlorobenzene	130
1,2-Dichloroethane	7.0 J
1,4-Dichlorobenzene	5.1 J
Acetone	7500

EXPLANATION

TEST HOLE 1 — Drum Vault Sample Location

TW -5 — Temporary Well

mg/kg — milligrams per kilogram
ug/l — micrograms per liter

NOTES: Soil samples were composite and collected from 0 to 2' bgs.

Data shown only at locations where analyte exceeds most conservative screening level.

	Soil Results
	Water Results

0 25 50
Approximate Scale in Feet

Drum Vault Soil and Groundwater Results
Cedar Chemical
Helena- West Helena, Arkansas

By: MLS | Date: 8/13/08 | Project No. 13636.000

AMEC Geomatrix | Figure 4

Plot Date: 02/21/09 - 1:35pm, Plotted by: mike.schofield
Drawing Path: M:\13636 - Arkansas\Helena-West Helena\FIGURES\, Drawing Name: Drum Vault Data.dwg

SOURCE: Banks Environmental Water Well Radius Report, 2008

0 1500

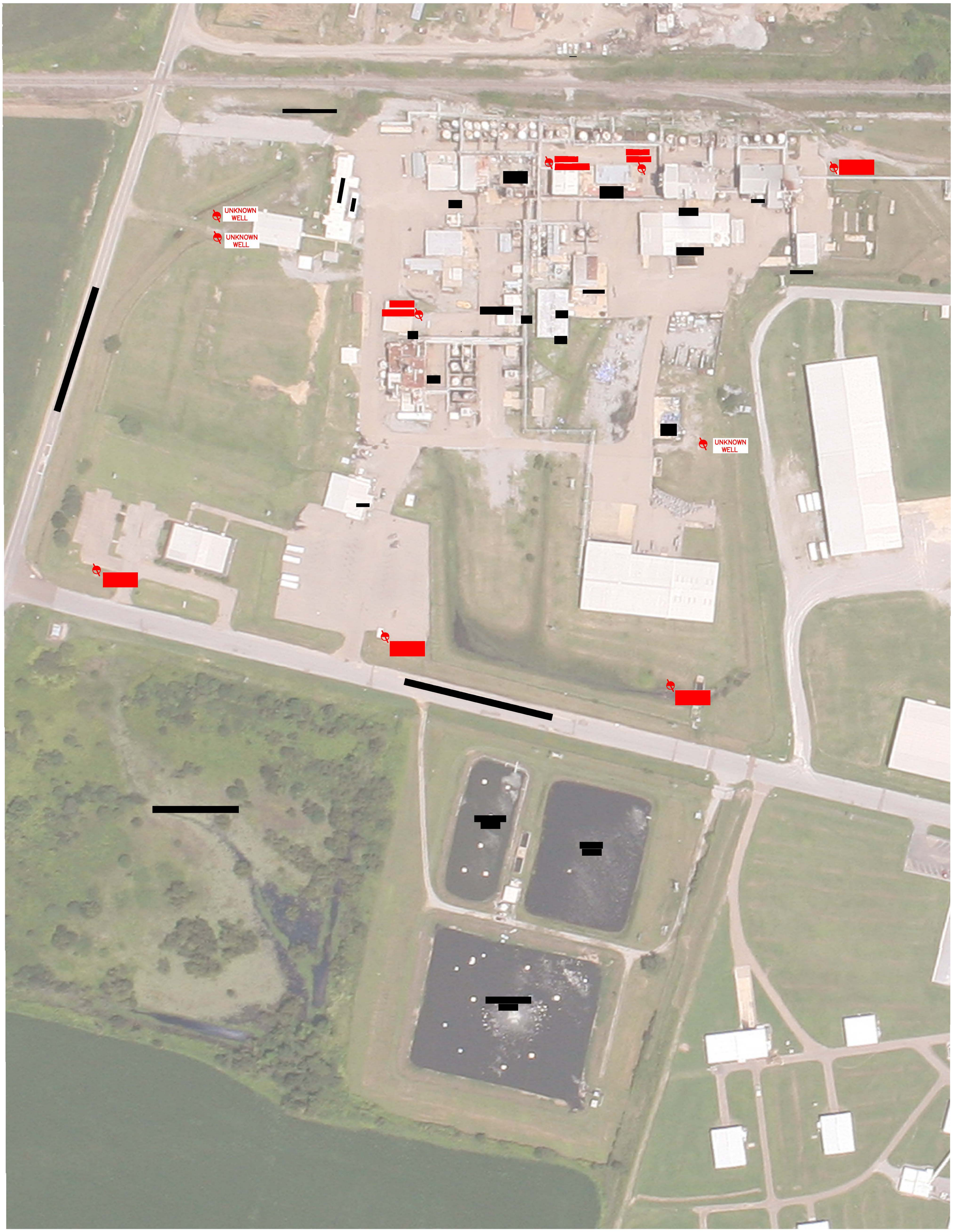
APPROXIMATE SCALE IN FEET

Domestic Well Locations
Within a One-Mile Radius

Cedar Chemical
Helena-West Helena, Arkansas

AMEC Geomatrix	Project 13636	Figure 5

L:\13636 - Arkansas Helena-West Helena\2007 CCR\FINAL FIGURES\ FIG 1 Site Location Map\FIG 1.dwg



BASEMAP MODIFIED FROM:
Smith & Weiland/Cline-Fraizer Survey, August 2008

EXPLANATION

Plugged and Abandoned Well

0 80
APPROXIMATE SCALE IN FEET

FORMER LOCATIONS OF WELLS THAT WERE PLUGGED AND ABANDONED

Cedar Chemical
Helena-West Helena, Arkansas

By: GBM	Date: 2/18/09	Project No. 13636
AMEC Geomatrix		Figure 6

BASEMAP MODIFIED FROM:
Smith & Weiland/Cline-Fraizer Survey, August 2008

EXPLANATION

161.5 — Perched Zone Well Location with Potentiometric Surface Elevation in Feet Above Mean Sea Level (FT AMSL)

161.5 — Potentiometric Surface Contour with Elevation in FT AMSL

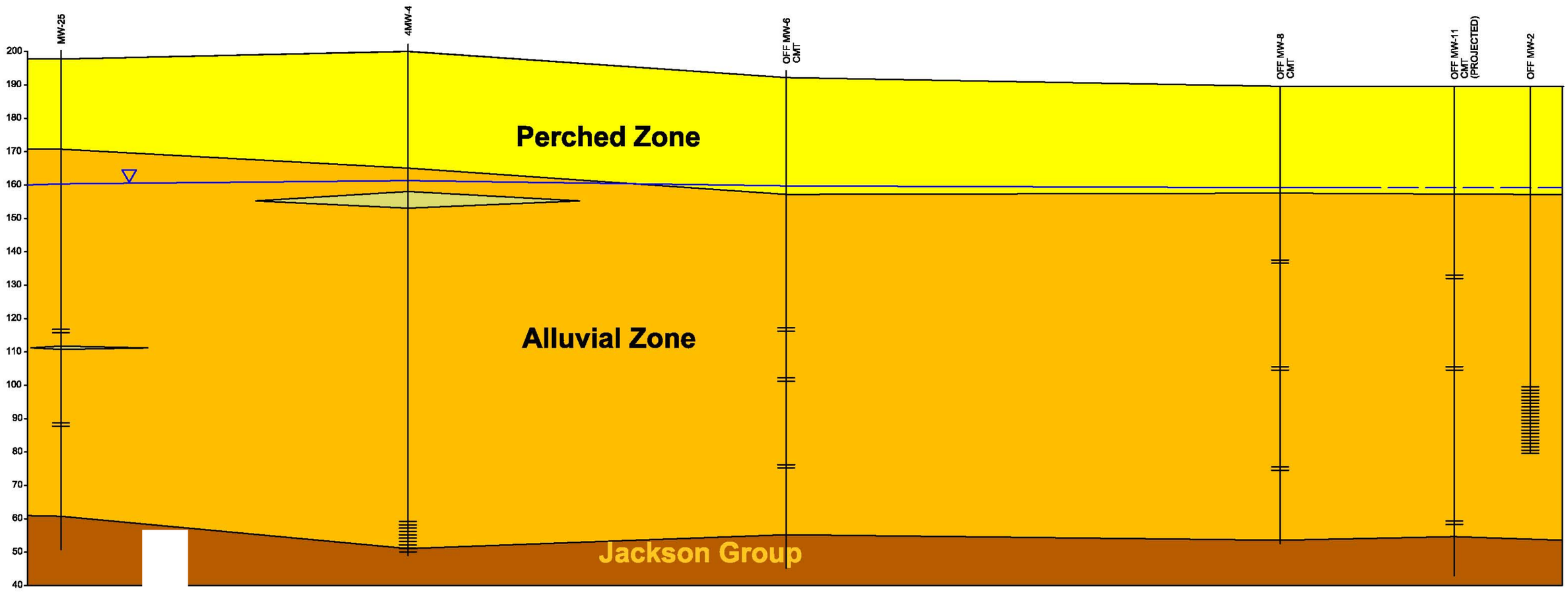
0 80
APPROXIMATE SCALE IN FEET

DRAFT

POTENTIOMETRIC SURFACE MAP
PERCHED ZONE
September 2008

Cedar Chemical
Helena-West Helena, Arkansas

By: MLS	Date: 10/1/08	Project No. 13636
AMEC Geomatrix		Figure 7



0 300 600

APPROXIMATE HORIZONTAL SCALE IN FEET

LEGEND

- Perched Zone: Predominantly Silty Clay (CL)
- Alluvial Zone: fine to coarse sand with gravel and cobble
- Confining Unit (Jackson Group): Dark gray to dark brown clay (CL) or black peat (PT)
- Clay Lens
- Water Level
- Monitoring Well with Screened Interval

Note: Groundwater elevation from July 21-22, 2008 gauging event

DRAFT

CROSS-SECTION A-A'

Cedar Chemical
Helena-West Helena, Arkansas

By: JCB	Date: 10/1/2008	Project No. 13636.000
AMEC Geomatrix		Figure 11

EXPLANATION

- Upper Alluvial Well Location
- Middle Alluvial Well Location
- Lower Alluvial Well Location
- CMT Well with multiple completions (depths noted)
- A —— A' Cross Section Location Line

BASEMAP MODIFIED FROM:
Smith & Welland/Cline-Frazar Survey, August 2008

0 125 250
Approximate Scale in Feet

Cross Section Location Map
Cedar Chemical
Helena-West Helena, Arkansas

By: MLS	Date: 10/1/08	Project No. 13636.000
AMEC Geomatrix		Figure 9

Plot Date: 01/06/09 - 1:44pm Plotted by: mike.schofield
Drawing Path: 113636 - Arkansas Helena West Helena\FIGURES\ Drawing Name: Cross Section Location Map.dwg

1/06/09 Cross Section Location Map.dwg

EXPLANATION

- Upper Alluvial Well Location
- Middle Alluvial Well Location
- Lower Alluvial Well Location
- CMT Well with multiple completions (depths noted)

DRAFT

0 125 250
Approximate Scale in Feet

Potentiometric Surface Map
Upper Alluvial Aquifer
July 2008
Cedar Chemical
Helena-West Helena, Arkansas

By: MLS	Date: 11/13/08	Project No. 13636.000
AMEC Geomatrix		Figure 12

Plot Date: 01/07/09 - 9:52am, Plotted by: mike.schofield
Drawing Path: I:\13636 - Arkansas-Helena-West Helena\F\GLIRES\, Drawing Name: Offsite Potentiometric Surface Maps_JulyO8.dwg
1/07/09 Offsite Potentionmetric Surface Maps_JulyO8.dwg

EXPLANATION

- Upper Alluvial Well Location
- Middle Alluvial Well Location
- Lower Alluvial Well Location
- CMT Well with multiple completions (depths noted)

NM Not Measured

Gauging data collected on September 24-25, 2008, except wells marked *, which were gauged on November 3, 2008

N

0 150 250
Approximate Scale in Feet

Potentiometric Surface Map
Upper Alluvial Aquifer
September 2008
Cedar Chemical
Helena-West Helena, Arkansas

By: MLS	Date: 11/13/08	Project No. 13636.000
AMEC Geomatrix		Figure 11

Plot Date: 02/21/09 - 1:41pm, Plotted by: mike.schofield
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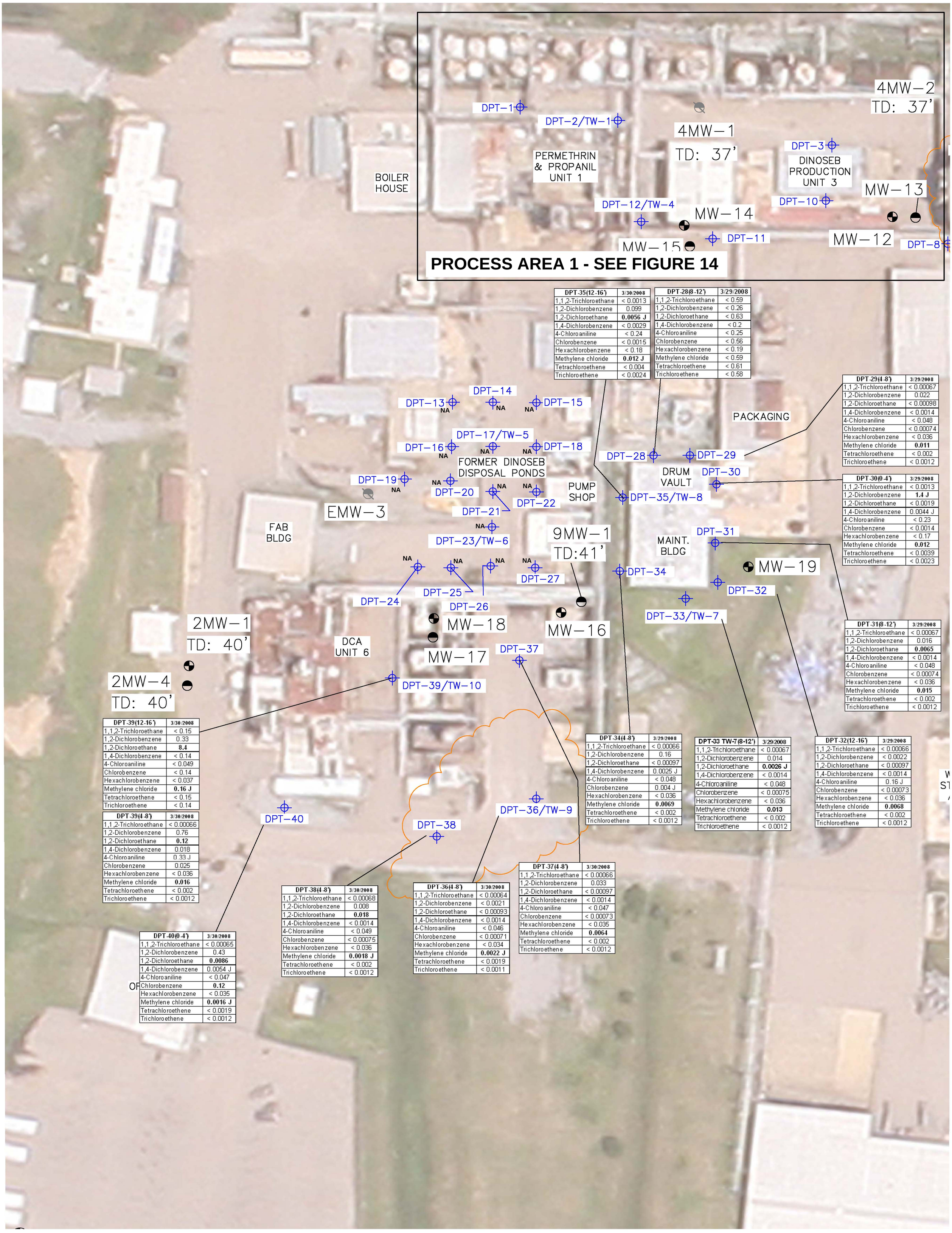


DPT-35(12-16')	3/30/2008
1,1,2-Trichloroethane	< 0.0013
1,2-Dichlorobenzene	0.099
1,2-Dichloroethane	**0.0056 J**
1,4-Dichlorobenzene	< 0.0029
4-Chloroaniline	< 0.24
Chlorobenzene	< 0.0015
Hexachlorobenzene	< 0.18
Methylene chloride	**0.012 J**
Tetrachloroethene	< 0.004
Trichloroethene	< 0.0024

DPT-28(8-12')	3/29/2008
1,1,2-Trichloroethane	< 0.59
1,2-Dichlorobenzene	< 0.26
1,2-Dichloroethane	< 0.63
1,4-Dichlorobenzene	< 0.2
4-Chloroaniline	< 0.25
Chlorobenzene	< 0.56
Hexachlorobenzene	< 0.19
Methylene chloride	< 0.59
Tetrachloroethene	< 0.61
Trichloroethene	< 0.58

DPT-29(4-8')	3/29/2008
1,1,2-Trichloroethane	< 0.00067
1,2-Dichlorobenzene	0.022
1,2-Dichloroethane	< 0.00098
1,4-Dichlorobenzene	< 0.0014
4-Chloroaniline	< 0.048
Chlorobenzene	< 0.00074
Hexachlorobenzene	< 0.036
Methylene chloride	**0.011**
Tetrachloroethene	< 0.002
Trichloroethene	< 0.0012

DPT-30(0-4')	3/29/2008
1,1,2-Trichloroethane	< 0.0013
1,2-Dichlorobenzene	**1.4 J**
1,2-Dichloroethane	< 0.0019
1,4-Dichlorobenzene	0.0044 J
4-Chloroaniline	< 0.23
Chlorobenzene	< 0.0014
Hexachlorobenzene	< 0.17
Methylene chloride	**0.012**
Tetrachloroethene	< 0.0039
Trichloroethene	< 0.0023

DPT-31(8-12')	3/29/2008
1,1,2-Trichloroethane	< 0.00067
1,2-Dichlorobenzene	0.016
1,2-Dichloroethane	**0.0065**
1,4-Dichlorobenzene	< 0.0014
4-Chloroaniline	< 0.048
Chlorobenzene	< 0.00074
Hexachlorobenzene	< 0.036
Methylene chloride	**0.015**
Tetrachloroethene	< 0.002
Trichloroethene	< 0.0012

DPT-39(12-16')	3/30/2008
1,1,2-Trichloroethane	< 0.15
1,2-Dichlorobenzene	0.33
1,2-Dichloroethane	**8.4**
1,4-Dichlorobenzene	< 0.14
4-Chloroaniline	< 0.049
Chlorobenzene	< 0.14
Hexachlorobenzene	< 0.037
Methylene chloride	**0.16 J**
Tetrachloroethene	< 0.15
Trichloroethene	< 0.14

DPT-39(4-8')	3/30/2008
1,1,2-Trichloroethane	< 0.00066
1,2-Dichlorobenzene	0.76
1,2-Dichloroethane	**0.12**
1,4-Dichlorobenzene	0.018
4-Chloroaniline	0.33 J
Chlorobenzene	0.025
Hexachlorobenzene	< 0.036
Methylene chloride	**0.016**
Tetrachloroethene	< 0.002
Trichloroethene	< 0.0012

DPT-40(0-4')	3/30/2008
1,1,2-Trichloroethane	< 0.00065
1,2-Dichlorobenzene	0.43
1,2-Dichloroethane	**0.0086**
1,4-Dichlorobenzene	0.0054 J
4-Chloroaniline	< 0.047
Chlorobenzene	**0.12**
Hexachlorobenzene	< 0.035
Methylene chloride	**0.0016 J**
Tetrachloroethene	< 0.0019
Trichloroethene	< 0.0012

DPT-38(4-8')	3/30/2008
1,1,2-Trichloroethane	< 0.00068
1,2-Dichlorobenzene	0.008
1,2-Dichloroethane	**0.018**
1,4-Dichlorobenzene	< 0.0014
4-Chloroaniline	< 0.049
Chlorobenzene	< 0.00075
Hexachlorobenzene	< 0.036
Methylene chloride	**0.0018 J**
Tetrachloroethene	< 0.002
Trichloroethene	< 0.0012

DPT-36(4-8')	3/30/2008
1,1,2-Trichloroethane	< 0.00064
1,2-Dichlorobenzene	< 0.0021
1,2-Dichloroethane	< 0.00093
1,4-Dichlorobenzene	< 0.0014
4-Chloroaniline	< 0.046
Chlorobenzene	< 0.00071
Hexachlorobenzene	< 0.034
Methylene chloride	**0.0022 J**
Tetrachloroethene	< 0.0019
Trichloroethene	< 0.0011

DPT-37(4-8')	3/30/2008
1,1,2-Trichloroethane	< 0.00066
1,2-Dichlorobenzene	0.033
1,2-Dichloroethane	< 0.00097
1,4-Dichlorobenzene	< 0.0014
4-Chloroaniline	< 0.047
Chlorobenzene	< 0.00073
Hexachlorobenzene	< 0.035
Methylene chloride	**0.0064**
Tetrachloroethene	< 0.002
Trichloroethene	< 0.0012

DPT-34(4-8')	3/29/2008
1,1,2-Trichloroethane	< 0.00066
1,2-Dichlorobenzene	0.16
1,2-Dichloroethane	< 0.00097
1,4-Dichlorobenzene	0.0025 J
4-Chloroaniline	< 0.048
Chlorobenzene	0.004 J
Hexachlorobenzene	< 0.036
Methylene chloride	**0.0069**
Tetrachloroethene	< 0.002
Trichloroethene	< 0.0012

DPT-33 TW-7(8-12')	3/29/2008
1,1,2-Trichloroethane	< 0.00067
1,2-Dichlorobenzene	0.014
1,2-Dichloroethane	**0.0026 J**
1,4-Dichlorobenzene	< 0.0014
4-Chloroaniline	< 0.048
Chlorobenzene	< 0.00075
Hexachlorobenzene	< 0.036
Methylene chloride	**0.013**
Tetrachloroethene	< 0.002
Trichloroethene	< 0.0012

DPT-32(12-16')	3/29/2008
1,1,2-Trichloroethane	< 0.00066
1,2-Dichlorobenzene	< 0.0022
1,2-Dichloroethane	< 0.00097
1,4-Dichlorobenzene	< 0.0014
4-Chloroaniline	0.16 J
Chlorobenzene	< 0.00073
Hexachlorobenzene	< 0.036
Methylene chloride	**0.0068**
Tetrachloroethene	< 0.002
Trichloroethene	< 0.0012

BASEMAP MODIFIED FROM:
Smith & Weiland/Cline-Fraizer Survey, August 2008

Screening Levels for Soil Samples		
Analyte	*Residential Soil (0-6" bgs) (mg/kg)*	*DAF (6" and below bgs) (mg/kg)*
1,1,2-Trichloroethane	0.84	0.0009
1,2-Dichlorobenzene	280	0.9
1,2-Dichloroethane	0.35	0.001
1,4-Dichlorobenzene	3.2	0.1
4-Chloroaniline	240	0.03
Chlorobenzene	270	0.07
Hexachlorobenzene	0.3	0.1
Methylene chloride	8.9	0.001
Tetrachloroethene	0.55	0.003
Trichloroethene	0.043	0.003

EXPLANATION

- Perched Well Location
- Upper Alluvial Aquifer Well Location
- Middle Alluvial Aquifer Well Location
- Lower Alluvial Aquifer Well Location
- Plugged and Abandoned Well
- DPT-5 Direct Push Location
- TW-1 Temporary Well Location
- Suspected Waste Burial Area Identified by ADEQ

0 30
APPROXIMATE SCALE IN FEET

DPT-25 (2-4')	3/29/2008
Aldrin	**0.28 J**
alpha-BHC	< 0.051
beta-BHC	< 0.068

Sample ID with Depth

Concentration of Analytes Detected (bold indicates concentration is above screening level)

Analyte not detected above detection limit shown

All results are in milligrams per kilogram (mg/kg).

Dichlorobenzene results shown are the higher reported of analysis by 8260B and 8270C.

J Estimated concentration for analyte.

NA - Samples not analyzed for VOCs/SVOCs

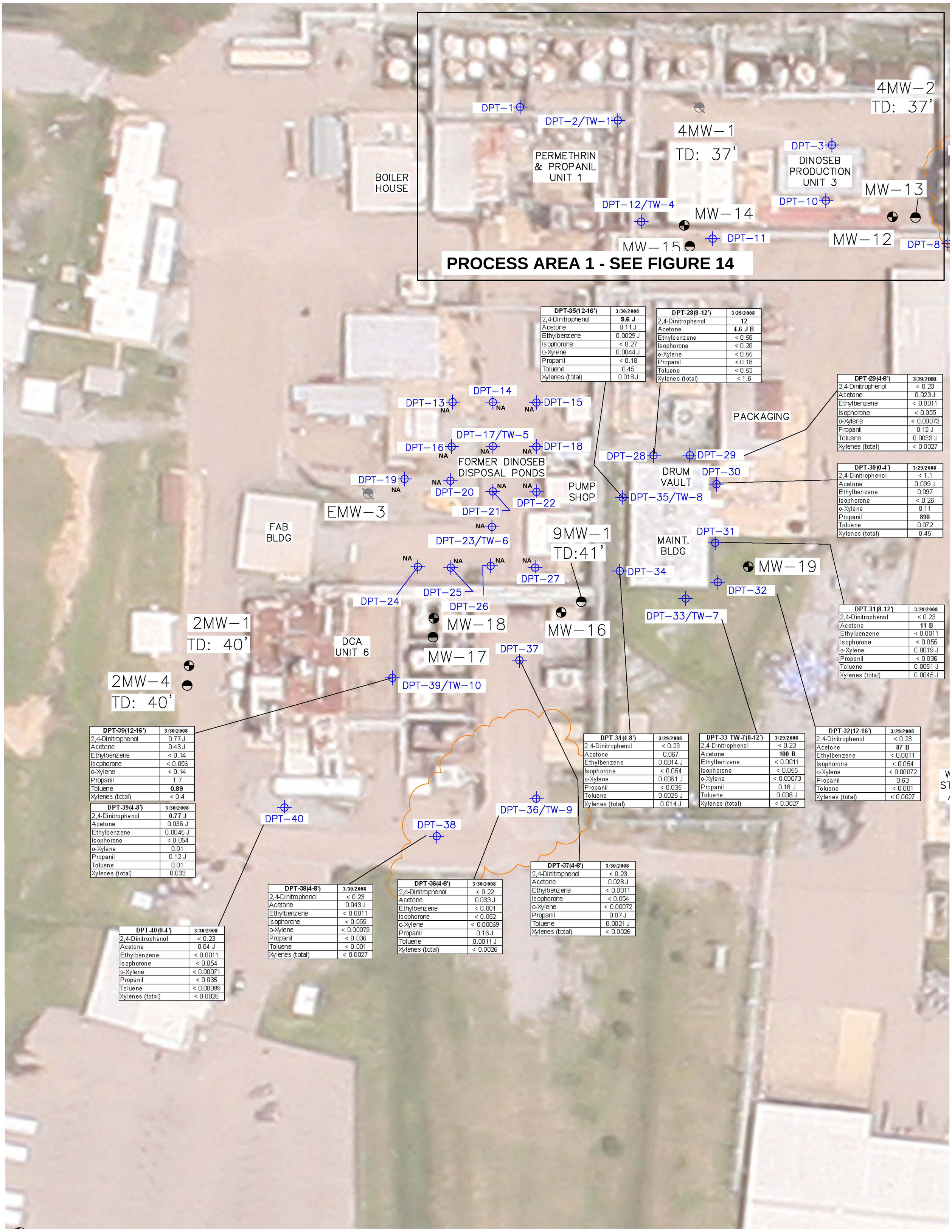
DPT - Direct Push Technology

VOCs and SVOCs in Soil:
Chlorinated Compounds
Process Area 2
DPT Investigation March 2008

Cedar Chemical
Helena-West Helena, Arkansas

By: MLS | Date: 10/1/08 | Project No. 13636

AMEC Geomatrix | Figure 12



DPT-35(12-16')	3/30/2008
2,4-Dinitrophenol	**9.6 J**
Acetone	0.11 J
Ethylbenzene	0.0029 J
Isophorone	< 0.27
o-Xylene	0.0044 J
Propanil	< 0.18
Toluene	0.45
Xylenes (total)	0.018 J

DPT-28(8-12')	3/29/2008
2,4-Dinitrophenol	**12**
Acetone	**4.6 J B**
Ethylbenzene	< 0.58
Isophorone	< 0.28
o-Xylene	< 0.55
Propanil	< 0.18
Toluene	< 0.53
Xylenes (total)	< 1.6

DPT-29(4-8')	3/29/2008
2,4-Dinitrophenol	< 0.23
Acetone	0.023 J
Ethylbenzene	< 0.0011
Isophorone	< 0.055
o-Xylene	< 0.00073
Propanil	0.12 J
Toluene	0.0033 J
Xylenes (total)	< 0.0027

DPT-30(0-4')	3/29/2008
2,4-Dinitrophenol	< 1.1
Acetone	0.099 J
Ethylbenzene	0.097
Isophorone	< 0.26
o-Xylene	0.11
Propanil	**890**
Toluene	0.072
Xylenes (total)	0.45

DPT-31(8-12')	3/29/2008
2,4-Dinitrophenol	< 0.23
Acetone	**11 B**
Ethylbenzene	< 0.0011
Isophorone	< 0.055
o-Xylene	0.0019 J
Propanil	< 0.036
Toluene	0.0051 J
Xylenes (total)	0.0045 J

DPT-39(12-16')	3/30/2008
2,4-Dinitrophenol	0.77 J
Acetone	0.43 J
Ethylbenzene	< 0.14
Isophorone	< 0.056
o-Xylene	< 0.14
Propanil	1.7
Toluene	**0.89**
Xylenes (total)	< 0.4

DPT-39(4-8')	3/30/2008
2,4-Dinitrophenol	**0.77 J**
Acetone	0.036 J
Ethylbenzene	0.0045 J
Isophorone	< 0.054
o-Xylene	0.01
Propanil	0.12 J
Toluene	0.01
Xylenes (total)	0.033

DPT-34(4-8')	3/29/2008
2,4-Dinitrophenol	< 0.23
Acetone	0.067
Ethylbenzene	0.0014 J
Isophorone	< 0.054
o-Xylene	0.0061 J
Propanil	< 0.035
Toluene	0.0025 J
Xylenes (total)	0.014 J

DPT-33 TW-7(8-12')	3/29/2008
2,4-Dinitrophenol	< 0.23
Acetone	**100 B**
Ethylbenzene	< 0.0011
Isophorone	< 0.055
o-Xylene	< 0.00073
Propanil	0.18 J
Toluene	0.006 J
Xylenes (total)	< 0.0027

DPT-32(12-16')	3/29/2008
2,4-Dinitrophenol	< 0.23
Acetone	**87 B**
Ethylbenzene	< 0.0011
Isophorone	< 0.054
o-Xylene	< 0.00072
Propanil	0.63
Toluene	< 0.001
Xylenes (total)	< 0.0027

DPT-40(0-4')	3/30/2008
2,4-Dinitrophenol	< 0.23
Acetone	0.04 J
Ethylbenzene	< 0.0011
Isophorone	< 0.054
o-Xylene	< 0.00071
Propanil	< 0.035
Toluene	< 0.00099
Xylenes (total)	< 0.0026

DPT-38(4-8')	3/30/2008
2,4-Dinitrophenol	< 0.23
Acetone	0.043 J
Ethylbenzene	< 0.0011
Isophorone	< 0.055
o-Xylene	< 0.00073
Propanil	< 0.036
Toluene	< 0.001
Xylenes (total)	< 0.0027

DPT-36(4-8')	3/30/2008
2,4-Dinitrophenol	< 0.22
Acetone	0.033 J
Ethylbenzene	< 0.001
Isophorone	< 0.052
o-Xylene	< 0.00069
Propanil	0.16 J
Toluene	0.0011 J
Xylenes (total)	< 0.0026

DPT-37(4-8')	3/30/2008
2,4-Dinitrophenol	< 0.23
Acetone	0.028 J
Ethylbenzene	< 0.0011
Isophorone	< 0.054
o-Xylene	< 0.00072
Propanil	0.07 J
Toluene	0.0021 J
Xylenes (total)	< 0.0026

BASEMAP MODIFIED FROM:
Smith & Weiland/Cline-Fraizer Survey, August 2008

EXPLANATION

- Perched Well Location
- Upper Alluvial Aquifer Well Location
- Middle Alluvial Aquifer Well Location
- Lower Alluvial Aquifer Well Location
- Plugged and Abandoned Well
- DPT-5 Direct Push Location
- TW-1 Temporary Well Location
- Suspected Waste Burial Area Identified by ADEQ

DPT-25 (2-4')	3/29/2008
Aldrin	**0.28 J**
alpha-BHC	< 0.051
beta-BHC	< 0.068

Sample ID with Depth

Concentration of Analytes Detected (bold indicates concentration is above screening level)

Analyte not detected above detection limit shown

0 30
APPROXIMATE SCALE IN FEET

Screening Levels for Soil Samples		
Analyte	*Residential Soil (0-6" bgs) (mg/kg)*	*DAF (6" and below bgs) (mg/kg)*
2,4-Dinitrophenol	120	0.01
Acetone	14000	0.8
Ethylbenzene	230	0.7
Isophorone	510	0.03
o-Xylene	280	9
Propanil	310	NA
Toluene	520	0.6
Xylenes (total)	210	10

All results are shown in milligrams per kilogram (mg/kg).

J Estimated concentration for analyte.

NA - Samples not analyzed for VOCs/SVOCs

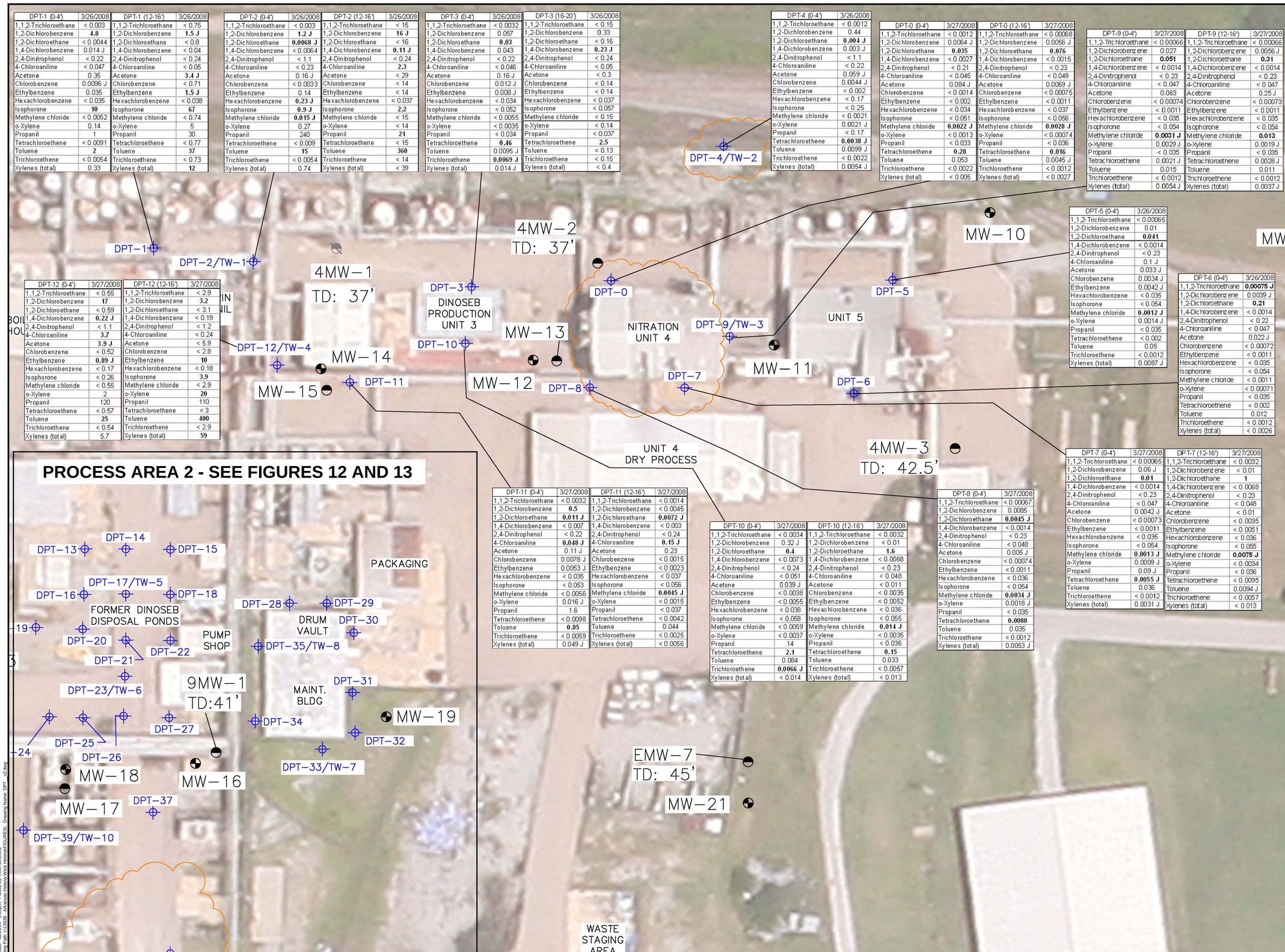
DPT - Direct Push Technology

VOCs and SVOCs in Soil:
Non-Chlorinated Compounds
Process Area 2
DPT Investigation March 2008

Cedar Chemical
Helena-West Helena, Arkansas

By: MLS | Date: 10/1/08 | Project No. 13636

AMEC Geomatrix | Figure 13



DPT-1 (0-4')	3/26/2008
1,1,2-Trichloroethane	< 0.003
1,2-Dichlorobenzene	**4.8**
1,2-Dichloroethane	< 0.0044
1,4-Dichlorobenzene	0.014 J
2,4-Dinitrophenol	< 0.22
4-Chloroaniline	< 0.047
Acetone	0.35
Chlorobenzene	0.0096 J
Ethylbenzene	0.035
Hexachlorobenzene	< 0.035
Isophorone	**10**
Methylene chloride	< 0.0052
o-Xylene	0.14
Propanil	1
Tetrachloroethene	< 0.0091
Toluene	**2**
Trichloroethene	< 0.0054
Xylenes (total)	0.33

DPT-1 (12-16')	3/26/2008
1,1,2-Trichloroethane	< 0.75
1,2-Dichlorobenzene	**1.5 J**
1,2-Dichloroethane	< 0.8
1,4-Dichlorobenzene	< 0.04
2,4-Dinitrophenol	< 0.24
4-Chloroaniline	< 0.05
Acetone	**3.4 J**
Chlorobenzene	< 0.71
Ethylbenzene	**1.5 J**
Hexachlorobenzene	< 0.038
Isophorone	**67**
Methylene chloride	< 0.74
o-Xylene	5
Propanil	30
Tetrachloroethene	< 0.77
Toluene	**37**
Trichloroethene	< 0.73
Xylenes (total)	**12**

DPT-2 (0-4')	3/26/2008
1,1,2-Trichloroethane	< 0.003
1,2-Dichlorobenzene	**1.2 J**
1,2-Dichloroethane	**0.0068 J**
1,4-Dichlorobenzene	< 0.0064
2,4-Dinitrophenol	< 1.1
4-Chloroaniline	< 0.23
Acetone	0.16 J
Chlorobenzene	< 0.0033
Ethylbenzene	0.14
Hexachlorobenzene	**0.23 J**
Isophorone	**0.9 J**
Methylene chloride	**0.015 J**
o-Xylene	0.27
Propanil	240
Tetrachloroethene	< 0.009
Toluene	**15**
Trichloroethene	< 0.0054
Xylenes (total)	0.74

DPT-2 (12-16')	3/26/2008
1,1,2-Trichloroethane	< 15
1,2-Dichlorobenzene	**16 J**
1,2-Dichloroethane	< 16
1,4-Dichlorobenzene	**0.11 J**
2,4-Dinitrophenol	< 0.24
4-Chloroaniline	**2.3**
Acetone	< 29
Chlorobenzene	< 14
Ethylbenzene	< 14
Hexachlorobenzene	< 0.037
Isophorone	**2.2**
Methylene chloride	< 15
o-Xylene	< 14
Propanil	**21**
Tetrachloroethene	< 15
Toluene	**360**
Trichloroethene	< 14
Xylenes (total)	< 39

DPT-3 (0-4')	3/26/2008
1,1,2-Trichloroethane	< 0.0032
1,2-Dichlorobenzene	0.057
1,2-Dichloroethane	**0.03**
1,4-Dichlorobenzene	0.043
2,4-Dinitrophenol	< 0.22
4-Chloroaniline	< 0.046
Acetone	0.16 J
Chlorobenzene	0.012 J
Ethylbenzene	0.008 J
Hexachlorobenzene	< 0.034
Isophorone	< 0.052
Methylene chloride	< 0.0055
o-Xylene	< 0.0035
Propanil	< 0.034
Tetrachloroethene	**0.46**
Toluene	0.0096 J
Trichloroethene	**0.0069 J**
Xylenes (total)	0.014 J

DPT-3 (16-20')	3/26/2008
1,1,2-Trichloroethane	< 0.15
1,2-Dichlorobenzene	0.33
1,2-Dichloroethane	< 0.16
1,4-Dichlorobenzene	**0.23 J**
2,4-Dinitrophenol	< 0.24
4-Chloroaniline	< 0.05
Acetone	< 0.3
Chlorobenzene	< 0.14
Ethylbenzene	< 0.14
Hexachlorobenzene	< 0.037
Isophorone	< 0.057
Methylene chloride	< 0.15
o-Xylene	< 0.14
Propanil	< 0.037
Tetrachloroethene	**2.5**
Toluene	< 0.13
Trichloroethene	< 0.15
Xylenes (total)	< 0.4

DPT-4 (0-4')	3/26/2008
1,1,2-Trichloroethane	< 0.0012
1,2-Dichlorobenzene	0.44
1,2-Dichloroethane	**0.004 J**
1,4-Dichlorobenzene	0.003 J
2,4-Dinitrophenol	< 1.1
4-Chloroaniline	< 0.22
Acetone	0.059 J
Chlorobenzene	0.0044 J
Ethylbenzene	< 0.002
Hexachlorobenzene	< 0.17
Isophorone	< 0.25
Methylene chloride	< 0.0021
o-Xylene	0.0021 J
Propanil	< 0.17
Tetrachloroethene	**0.0038 J**
Toluene	0.0099 J
Trichloroethene	< 0.0022
Xylenes (total)	0.0054 J

DPT-0 (0-4')	3/27/2008
1,1,2-Trichloroethane	< 0.0012
1,2-Dichlorobenzene	0.0064 J
1,2-Dichloroethane	**0.035**
1,4-Dichlorobenzene	< 0.0027
2,4-Dinitrophenol	< 0.21
4-Chloroaniline	< 0.045
Acetone	0.084 J
Chlorobenzene	< 0.0014
Ethylbenzene	< 0.002
Hexachlorobenzene	< 0.034
Isophorone	< 0.051
Methylene chloride	**0.0022 J**
o-Xylene	< 0.0013
Propanil	< 0.033
Tetrachloroethene	**0.28**
Toluene	0.053
Trichloroethene	< 0.0022
Xylenes (total)	< 0.005

DPT-0 (12-16')	3/27/2008
1,1,2-Trichloroethane	< 0.00068
1,2-Dichlorobenzene	0.0056 J
1,2-Dichloroethane	**0.076**
1,4-Dichlorobenzene	< 0.0015
2,4-Dinitrophenol	< 0.23
4-Chloroaniline	< 0.049
Acetone	0.0069 J
Chlorobenzene	< 0.00075
Ethylbenzene	< 0.0011
Hexachlorobenzene	< 0.037
Isophorone	< 0.056
Methylene chloride	**0.0028 J**
o-Xylene	< 0.00074
Propanil	< 0.036
Tetrachloroethene	**0.016**
Toluene	0.0045 J
Trichloroethene	< 0.0012
Xylenes (total)	< 0.0027

DPT-9 (0-4')	3/27/2008
1,1,2-Trichloroethane	< 0.00066
1,2-Dichlorobenzene	0.027
1,2-Dichloroethane	**0.051**
1,4-Dichlorobenzene	< 0.0014
2,4-Dinitrophenol	< 0.23
4-Chloroaniline	< 0.047
Acetone	0.063
Chlorobenzene	< 0.00074
Ethylbenzene	< 0.0011
Hexachlorobenzene	< 0.035
Isophorone	< 0.054
Methylene chloride	**0.0031 J**
o-Xylene	0.0029 J
Propanil	< 0.035
Tetrachloroethene	0.0021 J
Toluene	0.015
Trichloroethene	< 0.0012
Xylenes (total)	0.0054 J

DPT-9 (12-16')	3/27/2008
1,1,2-Trichloroethane	< 0.00066
1,2-Dichlorobenzene	0.0056 J
1,2-Dichloroethane	**0.31**
1,4-Dichlorobenzene	< 0.0014
2,4-Dinitrophenol	< 0.23
4-Chloroaniline	< 0.047
Acetone	0.25 J
Chlorobenzene	< 0.00073
Ethylbenzene	< 0.0011
Hexachlorobenzene	< 0.035
Isophorone	< 0.054
Methylene chloride	**0.013**
o-Xylene	0.0019 J
Propanil	< 0.035
Tetrachloroethene	0.0028 J
Toluene	0.011
Trichloroethene	< 0.0012
Xylenes (total)	0.0037 J

DPT-12 (0-4')	3/27/2008
1,1,2-Trichloroethane	< 0.55
1,2-Dichlorobenzene	**17**
1,2-Dichloroethane	< 0.59
1,4-Dichlorobenzene	**0.22 J**
2,4-Dinitrophenol	< 1.1
4-Chloroaniline	**3.7**
Acetone	**3.9 J**
Chlorobenzene	< 0.52
Ethylbenzene	**0.89 J**
Hexachlorobenzene	< 0.17
Isophorone	< 0.26
Methylene chloride	< 0.55
o-Xylene	2
Propanil	120
Tetrachloroethene	< 0.57
Toluene	**25**
Trichloroethene	< 0.54
Xylenes (total)	5.7

DPT-12 (12-16')	3/27/2008
1,1,2-Trichloroethane	< 2.9
1,2-Dichlorobenzene	**3.2**
1,2-Dichloroethane	< 3.1
1,4-Dichlorobenzene	< 0.19
2,4-Dinitrophenol	< 1.2
4-Chloroaniline	< 0.24
Acetone	< 5.9
Chlorobenzene	< 2.8
Ethylbenzene	**10**
Hexachlorobenzene	< 0.18
Isophorone	**3.9**
Methylene chloride	< 2.9
o-Xylene	**20**
Propanil	110
Tetrachloroethene	< 3
Trichloroethene	< 2.9
Xylenes (total)	**59**

DPT-5 (0-4')	3/26/2008
1,1,2-Trichloroethane	< 0.00065
1,2-Dichlorobenzene	0.01
1,2-Dichloroethane	**0.041**
1,4-Dichlorobenzene	< 0.0014
2,4-Dinitrophenol	< 0.23
4-Chloroaniline	0.1 J
Acetone	0.033 J
Chlorobenzene	0.0034 J
Ethylbenzene	0.0042 J
Hexachlorobenzene	< 0.035
Isophorone	< 0.054
Methylene chloride	**0.0012 J**
o-Xylene	0.0014 J
Propanil	< 0.035
Tetrachloroethene	< 0.002
Toluene	0.05
Trichloroethene	< 0.0012
Xylenes (total)	0.0087 J

DPT-6 (0-4')	3/26/2008
1,1,2-Trichloroethane	**0.00075 J**
1,2-Dichlorobenzene	0.0039 J
1,2-Dichloroethane	**0.21**
1,4-Dichlorobenzene	< 0.0014
2,4-Dinitrophenol	< 0.22
4-Chloroaniline	< 0.047
Acetone	0.022 J
Chlorobenzene	< 0.00072
Ethylbenzene	< 0.0011
Hexachlorobenzene	< 0.035
Isophorone	< 0.054
Methylene chloride	< 0.0011
o-Xylene	< 0.00071
Propanil	< 0.035
Tetrachloroethene	< 0.002
Toluene	0.012
Trichloroethene	< 0.0012
Xylenes (total)	< 0.0026

DPT-7 (0-4')	3/27/2008
1,1,2-Trichloroethane	< 0.00065
1,2-Dichlorobenzene	0.06 J
1,2-Dichloroethane	**0.01**
1,4-Dichlorobenzene	< 0.0014
2,4-Dinitrophenol	< 0.23
4-Chloroaniline	< 0.047
Acetone	0.0042 J
Chlorobenzene	< 0.00073
Ethylbenzene	< 0.0011
Hexachlorobenzene	< 0.035
Isophorone	< 0.054
Methylene chloride	**0.0013 J**
o-Xylene	0.0009 J
Propanil	0.09 J
Tetrachloroethene	**0.0055 J**
Toluene	0.036
Trichloroethene	< 0.0012
Xylenes (total)	0.0031 J

DPT-7 (12-16')	3/27/2008
1,1,2-Trichloroethane	< 0.0032
1,2-Dichlorobenzene	< 0.01
1,2-Dichloroethane	**1**
1,4-Dichlorobenzene	< 0.0068
2,4-Dinitrophenol	< 0.23
4-Chloroaniline	< 0.048
Acetone	< 0.01
Chlorobenzene	< 0.0035
Ethylbenzene	< 0.0051
Hexachlorobenzene	< 0.036
Isophorone	< 0.055
Methylene chloride	**0.0075 J**
o-Xylene	< 0.0034
Propanil	< 0.036
Tetrachloroethene	< 0.0095
Toluene	0.0094 J
Trichloroethene	< 0.0057
Xylenes (total)	< 0.013

DPT-11 (0-4')	3/27/2008
1,1,2-Trichloroethane	< 0.0032
1,2-Dichlorobenzene	**0.5**
1,2-Dichloroethane	**0.011 J**
1,4-Dichlorobenzene	< 0.007
2,4-Dinitrophenol	< 0.22
4-Chloroaniline	**0.048 J**
Acetone	0.11 J
Chlorobenzene	0.0078 J
Ethylbenzene	0.0053 J
Hexachlorobenzene	< 0.035
Isophorone	< 0.053
Methylene chloride	< 0.0056
o-Xylene	0.016 J
Propanil	1.6
Tetrachloroethene	< 0.0098
Toluene	**0.85**
Trichloroethene	< 0.0059
Xylenes (total)	0.049 J

DPT-11 (12-16')	3/27/2008
1,1,2-Trichloroethane	< 0.0014
1,2-Dichlorobenzene	< 0.0045
1,2-Dichloroethane	**0.0072 J**
1,4-Dichlorobenzene	< 0.003
2,4-Dinitrophenol	< 0.24
4-Chloroaniline	**0.15 J**
Acetone	0.23
Chlorobenzene	< 0.0015
Ethylbenzene	< 0.0023
Hexachlorobenzene	< 0.037
Isophorone	< 0.056
Methylene chloride	**0.0045 J**
o-Xylene	< 0.0015
Propanil	< 0.037
Tetrachloroethene	< 0.0042
Toluene	0.044
Trichloroethene	< 0.0025
Xylenes (total)	< 0.0056

DPT-10 (0-4')	3/27/2008
1,1,2-Trichloroethane	< 0.0034
1,2-Dichlorobenzene	0.32 J
1,2-Dichloroethane	**0.4**
1,4-Dichlorobenzene	< 0.0073
2,4-Dinitrophenol	< 0.24
4-Chloroaniline	< 0.051
Acetone	0.039 J
Chlorobenzene	< 0.0038
Ethylbenzene	< 0.0055
Hexachlorobenzene	< 0.038
Isophorone	< 0.058
Methylene chloride	< 0.0059
o-Xylene	< 0.0037
Propanil	14
Tetrachloroethene	**2.1**
Toluene	0.084
Trichloroethene	**0.0066 J**
Xylenes (total)	< 0.014

DPT-10 (12-16')	3/27/2008
1,1,2-Trichloroethane	< 0.0032
1,2-Dichlorobenzene	< 0.01
1,2-Dichloroethane	**1.6**
1,4-Dichlorobenzene	< 0.0068
2,4-Dinitrophenol	< 0.23
4-Chloroaniline	< 0.048
Acetone	< 0.011
Chlorobenzene	< 0.0035
Ethylbenzene	< 0.0052
Hexachlorobenzene	< 0.036
Isophorone	< 0.055
Methylene chloride	**0.014 J**
o-Xylene	< 0.0035
Propanil	< 0.036
Tetrachloroethene	**0.15**
Toluene	0.033
Trichloroethene	< 0.0057
Xylenes (total)	< 0.013

DPT-8 (0-4')	3/27/2008
1,1,2-Trichloroethane	< 0.00067
1,2-Dichlorobenzene	0.0085
1,2-Dichloroethane	**0.0045 J**
1,4-Dichlorobenzene	< 0.0014
2,4-Dinitrophenol	< 0.23
4-Chloroaniline	< 0.048
Acetone	0.005 J
Chlorobenzene	< 0.00074
Ethylbenzene	< 0.0011
Hexachlorobenzene	< 0.036
Isophorone	< 0.054
Methylene chloride	**0.0034 J**
o-Xylene	0.0018 J
Propanil	< 0.035
Tetrachloroethene	**0.0088**
Toluene	0.035
Trichloroethene	< 0.0012
Xylenes (total)	0.0053 J

EXPLANATION

- Perched Well Location
- Upper Alluvial Aquifer Well Location
- Middle Alluvial Aquifer Well Location
- Lower Alluvial Aquifer Well Location
- Plugged and Abandoned Well
- DPT-5 Direct Push Location
- TW-1 Temporary Well Location
- Suspected Waste Burial Area Identified by ADEQ

Sample ID with Depth

Analyte not detected above detection limit shown

DPT-3 (16-20')	3/26/2008
1,1,2-Trichloroethane	< 0.15
Tetrachloroethene	**2.5**

Concentration of Analytes Detected (bold indicates concentration is above screening level)

All results shown are in milligrams per kilogram (mg/kg).

J Estimated concentration for analyte.

1,2- and 1,4- Dichlorobenzene results shown are the higher reported of analysis by 8260B and 8270C

DPT - Direct Push Technology

Screening Levels for Soil Samples

Analyte	Residential Soil MSSL (0-6" bgs) (mg/kg)	DAF (6" to Groundwater) (mg/kg)
1,1,2-Trichloroethane	0.84	0.0009
1,2-Dichlorobenzene	280	0.9
1,2-Dichloroethane	0.35	0.001
1,4-Dichlorobenzene	3.2	0.1
Acetone	14000	0.8
Chlorobenzene	270	0.07
Ethylbenzene	230	0.7
Methylene chloride	8.9	0.001
o-Xylene	280	9
Tetrachloroethene	0.55	0.003
Toluene	520	0.6
Trichloroethene	0.043	0.003
Xylenes (total)	210	10
1,2-Dichlorobenzene	280	0.9
1,4-Dichlorobenzene	3.2	0.1
2,4-Dinitrophenol	120	0.01
4-Chloroaniline	240	0.03
Dinoseb	61	NA
Hexachlorobenzene	0.3	0.1
Isophorone	510	0.03
Propanil	310	NA

0 30
APPROXIMATE SCALE IN FEET

BASEMAP MODIFIED FROM:
Smith & Weiland/Cline-Fraizer Survey, August 2008

VOCs and SVOCs in Soil
Process Area 1
DPT Investigation March 2008

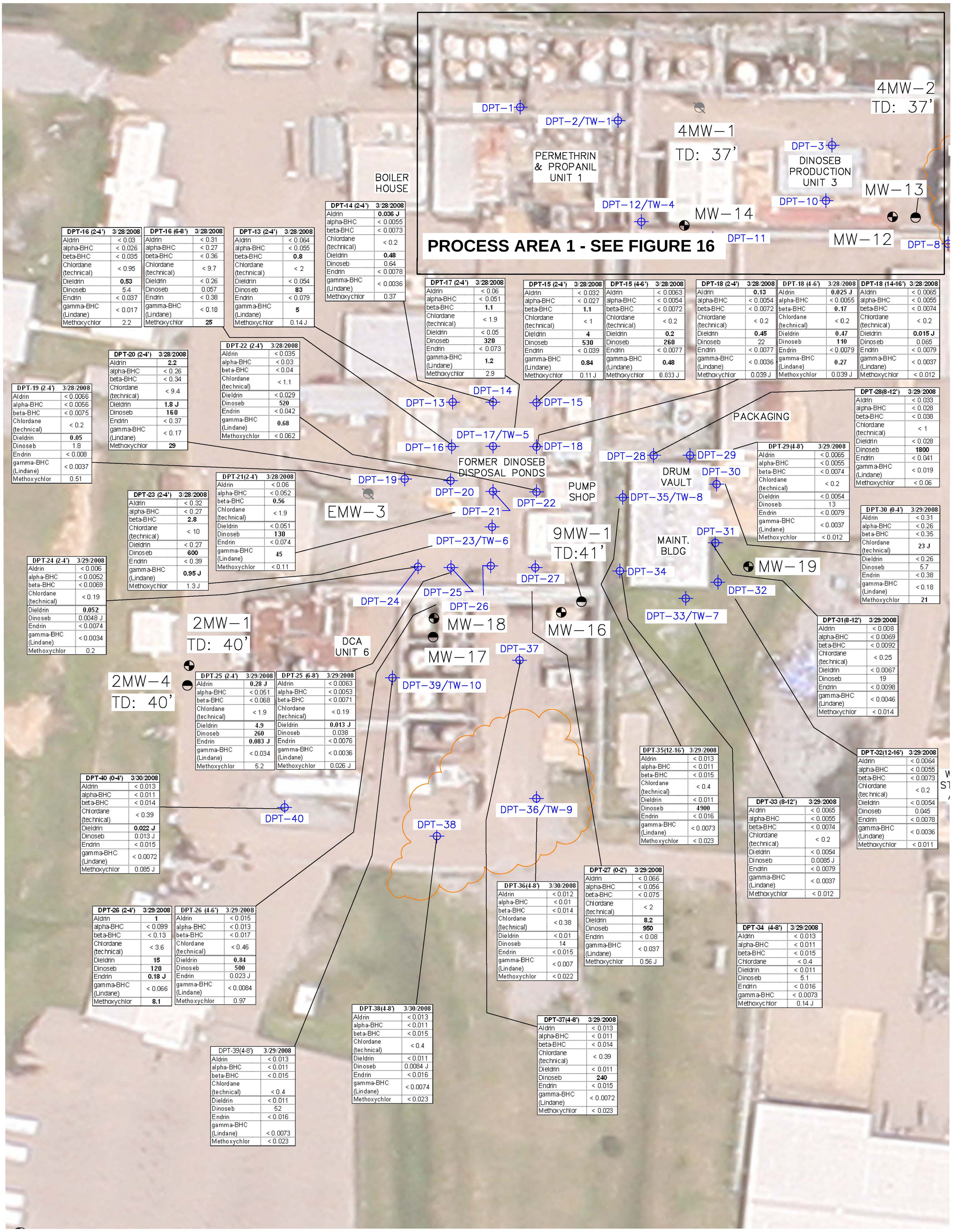
Cedar Chemical
Helena-West Helena, Arkansas

By: MLS | Date: 2/10/09 | Project No. 13636

AMEC Geomatrix

Figure 14

Plot Date: 02/21/09 - 2:22pm, Plotted by: mike schofield
Drawing Path: L:\1363 - Arkansas Helena West Helena\FIGURES\, Drawing Name: DPT_v2.dwg



DPT-16 (2-4')	3/28/2008
Aldrin	< 0.03
alpha-BHC	< 0.026
beta-BHC	< 0.035
Chlordane (technical)	< 0.95
Dieldrin	**0.53**
Dinoseb	5.4
Endrin	< 0.037
gamma-BHC (Lindane)	< 0.017
Methoxychlor	2.2

DPT-16 (6-8')	3/28/2008
Aldrin	< 0.31
alpha-BHC	< 0.27
beta-BHC	< 0.36
Chlordane (technical)	< 9.7
Dieldrin	< 0.26
Dinoseb	0.057
Endrin	< 0.38
gamma-BHC (Lindane)	< 0.18
Methoxychlor	**25**

DPT-13 (2-4')	3/28/2008
Aldrin	< 0.064
alpha-BHC	< 0.055
beta-BHC	**0.8**
Chlordane (technical)	< 2
Dieldrin	< 0.054
Dinoseb	**83**
Endrin	< 0.079
gamma-BHC (Lindane)	**5**
Methoxychlor	0.14 J

DPT-14 (2-4')	3/28/2008
Aldrin	**0.036 J**
alpha-BHC	< 0.0055
beta-BHC	< 0.0073
Chlordane (technical)	< 0.2
Dieldrin	**0.48**
Dinoseb	0.64
Endrin	< 0.0078
gamma-BHC (Lindane)	< 0.0036
Methoxychlor	0.37

DPT-17 (2-4')	3/28/2008
Aldrin	< 0.06
alpha-BHC	< 0.051
beta-BHC	**1.1**
Chlordane (technical)	< 1.9
Dieldrin	< 0.05
Dinoseb	**320**
Endrin	< 0.073
gamma-BHC (Lindane)	**1.2**
Methoxychlor	2.9

DPT-15 (2-4')	3/28/2008
Aldrin	< 0.032
alpha-BHC	< 0.027
beta-BHC	**1.1**
Chlordane (technical)	< 1
Dieldrin	**4**
Dinoseb	**530**
Endrin	< 0.039
gamma-BHC (Lindane)	**0.84**
Methoxychlor	0.11 J

DPT-15 (4-6')	3/28/2008
Aldrin	< 0.0063
alpha-BHC	< 0.0054
beta-BHC	< 0.0072
Chlordane (technical)	< 0.2
Dieldrin	**0.2**
Dinoseb	**260**
Endrin	< 0.0077
gamma-BHC (Lindane)	**0.48**
Methoxychlor	0.033 J

DPT-18 (2-4')	3/28/2008
Aldrin	**0.13**
alpha-BHC	< 0.0054
beta-BHC	< 0.0072
Chlordane (technical)	< 0.2
Dieldrin	**0.45**
Dinoseb	22
Endrin	< 0.0077
gamma-BHC (Lindane)	< 0.0036
Methoxychlor	0.039 J

DPT-18 (4-6')	3/28/2008
Aldrin	**0.025 J**
alpha-BHC	< 0.0055
beta-BHC	**0.17**
Chlordane (technical)	< 0.2
Dieldrin	**0.47**
Dinoseb	**110**
Endrin	< 0.0079
gamma-BHC (Lindane)	**0.27**
Methoxychlor	0.039 J

DPT-18 (14-16')	3/28/2008
Aldrin	< 0.0065
alpha-BHC	< 0.0055
beta-BHC	< 0.0074
Chlordane (technical)	< 0.2
Dieldrin	**0.015 J**
Dinoseb	0.065
Endrin	< 0.0079
gamma-BHC (Lindane)	< 0.0037
Methoxychlor	< 0.012

DPT-20 (2-4')	3/28/2008
Aldrin	**2.2**
alpha-BHC	< 0.26
beta-BHC	< 0.34
Chlordane (technical)	< 9.4
Dieldrin	**1.8 J**
Dinoseb	**160**
Endrin	< 0.37
gamma-BHC (Lindane)	< 0.17
Methoxychlor	**29**

DPT-22 (2-4')	3/28/2008
Aldrin	< 0.035
alpha-BHC	< 0.03
beta-BHC	< 0.04
Chlordane (technical)	< 1.1
Dieldrin	< 0.029
Dinoseb	**520**
Endrin	< 0.042
gamma-BHC (Lindane)	**0.68**
Methoxychlor	< 0.062

DPT-19 (2-4')	3/28/2008
Aldrin	< 0.0066
alpha-BHC	< 0.0056
beta-BHC	< 0.0075
Chlordane (technical)	< 0.2
Dieldrin	**0.05**
Dinoseb	1.8
Endrin	< 0.008
gamma-BHC (Lindane)	< 0.0037
Methoxychlor	0.51

DPT-21(2-4')	3/28/2008
Aldrin	< 0.06
alpha-BHC	< 0.052
beta-BHC	**0.56**
Chlordane (technical)	< 1.9
Dieldrin	< 0.051
Dinoseb	**130**
Endrin	< 0.074
gamma-BHC (Lindane)	**45**
Methoxychlor	< 0.11

DPT-23 (2-4')	3/28/2008
Aldrin	< 0.32
alpha-BHC	< 0.27
beta-BHC	**2.8**
Chlordane (technical)	< 10
Dieldrin	< 0.27
Dinoseb	**600**
Endrin	< 0.39
gamma-BHC (Lindane)	**0.95 J**
Methoxychlor	1.3 J

DPT-24 (2-4')	3/29/2008
Aldrin	< 0.006
alpha-BHC	< 0.0052
beta-BHC	< 0.0069
Chlordane (technical)	< 0.19
Dieldrin	**0.052**
Dinoseb	0.0048 J
Endrin	< 0.0074
gamma-BHC (Lindane)	< 0.0034
Methoxychlor	0.2

DPT-25 (2-4')	3/29/2008
Aldrin	**0.28 J**
alpha-BHC	< 0.051
beta-BHC	< 0.068
Chlordane (technical)	< 1.9
Dieldrin	**4.9**
Dinoseb	**260**
Endrin	**0.083 J**
gamma-BHC (Lindane)	< 0.034
Methoxychlor	5.2

DPT-25 (6-8')	3/29/2008
Aldrin	< 0.0063
alpha-BHC	< 0.0053
beta-BHC	< 0.0071
Chlordane (technical)	< 0.19
Dieldrin	**0.013 J**
Dinoseb	0.038
Endrin	< 0.0076
gamma-BHC (Lindane)	< 0.0036
Methoxychlor	0.026 J

DPT-28(8-12')	3/29/2008
Aldrin	< 0.033
alpha-BHC	< 0.028
beta-BHC	< 0.038
Chlordane (technical)	< 1
Dieldrin	< 0.028
Dinoseb	**1800**
Endrin	< 0.041
gamma-BHC (Lindane)	< 0.019
Methoxychlor	< 0.06

DPT-29 (4-8')	3/29/2008
Aldrin	< 0.0065
alpha-BHC	< 0.0055
beta-BHC	< 0.0074
Chlordane (technical)	< 0.2
Dieldrin	< 0.0054
Dinoseb	13
Endrin	< 0.0079
gamma-BHC (Lindane)	< 0.0037
Methoxychlor	< 0.012

DPT-30 (0-4')	3/29/2008
Aldrin	< 0.31
alpha-BHC	< 0.26
beta-BHC	< 0.35
Chlordane (technical)	**23 J**
Dieldrin	< 0.26
Dinoseb	5.7
Endrin	< 0.38
gamma-BHC (Lindane)	< 0.18
Methoxychlor	**21**

DPT-31(8-12')	3/29/2008
Aldrin	< 0.008
alpha-BHC	< 0.0069
beta-BHC	< 0.0092
Chlordane (technical)	< 0.25
Dieldrin	< 0.0067
Dinoseb	19
Endrin	< 0.0098
gamma-BHC (Lindane)	< 0.0046
Methoxychlor	< 0.014

DPT-35(12-16')	3/29/2008
Aldrin	< 0.013
alpha-BHC	< 0.011
beta-BHC	< 0.015
Chlordane (technical)	< 0.4
Dieldrin	< 0.011
Dinoseb	**4900**
Endrin	< 0.016
gamma-BHC (Lindane)	< 0.0073
Methoxychlor	< 0.023

DPT-32(12-16')	3/29/2008
Aldrin	< 0.0064
alpha-BHC	< 0.0055
beta-BHC	< 0.0073
Chlordane (technical)	< 0.2
Dieldrin	< 0.0054
Dinoseb	0.045
Endrin	< 0.0078
gamma-BHC (Lindane)	< 0.0036
Methoxychlor	< 0.011

DPT-33 (8-12')	3/29/2008
Aldrin	< 0.0065
alpha-BHC	< 0.0055
beta-BHC	< 0.0074
Chlordane (technical)	< 0.2
Dieldrin	< 0.0054
Dinoseb	0.0085 J
Endrin	< 0.0079
gamma-BHC (Lindane)	< 0.0037
Methoxychlor	< 0.012

DPT-40 (0-4')	3/30/2008
Aldrin	< 0.013
alpha-BHC	< 0.011
beta-BHC	< 0.014
Chlordane (technical)	< 0.39
Dieldrin	**0.022 J**
Dinoseb	0.013 J
Endrin	< 0.015
gamma-BHC (Lindane)	< 0.0072
Methoxychlor	0.085 J

DPT-27 (0-2')	3/29/2008
Aldrin	< 0.066
alpha-BHC	< 0.056
beta-BHC	< 0.075
Chlordane (technical)	< 2
Dieldrin	**8.2**
Dinoseb	**950**
Endrin	< 0.08
gamma-BHC (Lindane)	< 0.037
Methoxychlor	0.56 J

DPT-36(4-8')	3/30/2008
Aldrin	< 0.012
alpha-BHC	< 0.01
beta-BHC	< 0.014
Chlordane (technical)	< 0.38
Dieldrin	< 0.01
Dinoseb	14
Endrin	< 0.015
gamma-BHC (Lindane)	< 0.007
Methoxychlor	< 0.022

DPT-34 (4-8')	3/29/2008
Aldrin	< 0.013
alpha-BHC	< 0.011
beta-BHC	< 0.015
Chlordane	< 0.4
Dieldrin	< 0.011
Dinoseb	5.1
Endrin	< 0.016
gamma-BHC	< 0.0073
Methoxychlor	0.14 J

DPT-26 (2-4')	3/29/2008
Aldrin	**1**
alpha-BHC	< 0.099
beta-BHC	< 0.13
Chlordane (technical)	< 3.6
Dieldrin	**15**
Dinoseb	**120**
Endrin	**0.18 J**
gamma-BHC (Lindane)	< 0.066
Methoxychlor	**8.1**

DPT-26 (4-6')	3/29/2008
Aldrin	< 0.015
alpha-BHC	< 0.013
beta-BHC	< 0.017
Chlordane (technical)	< 0.46
Dieldrin	**0.84**
Dinoseb	**500**
Endrin	0.023 J
gamma-BHC (Lindane)	< 0.0084
Methoxychlor	0.97

DPT-38(4-8')	3/30/2008
Aldrin	< 0.013
alpha-BHC	< 0.011
beta-BHC	< 0.015
Chlordane (technical)	< 0.4
Dieldrin	< 0.011
Dinoseb	0.0084 J
Endrin	< 0.016
gamma-BHC (Lindane)	< 0.0074
Methoxychlor	< 0.023

DPT-37(4-8')	3/29/2008
Aldrin	< 0.013
alpha-BHC	< 0.011
beta-BHC	< 0.014
Chlordane (technical)	< 0.39
Dieldrin	< 0.011
Dinoseb	**240**
Endrin	< 0.015
gamma-BHC (Lindane)	< 0.0072
Methoxychlor	< 0.023

DPT-39(4-8')	3/29/2008
Aldrin	< 0.013
alpha-BHC	< 0.011
beta-BHC	< 0.015
Chlordane (technical)	< 0.4
Dieldrin	< 0.011
Dinoseb	52
Endrin	< 0.016
gamma-BHC (Lindane)	< 0.0073
Methoxychlor	< 0.023

BASEMAP MODIFIED FROM:
Smith & Weiland/Cline-Fraizer Survey, August 2008

EXPLANATION

- Perched Well Location
- Upper Alluvial Aquifer Well Location
- Middle Alluvial Aquifer Well Location
- Lower Alluvial Aquifer Well Location
- Plugged and Abandoned Well
- DPT-5 Direct Push Location
- TW-1 Temporary Well Location
- Suspected Waste Burial Area Identified by ADEQ

DPT-25 (2-4')	3/29/2008
Aldrin	**0.28 J**
alpha-BHC	< 0.051
beta-BHC	< 0.068

Sample ID with Depth

Concentration of Analytes Detected (bold indicates concentration is above screening level)

Analyte not detected above detection limit shown

All results shown are in milligrams per kilogram (mg/kg).

J Estimated concentration for analyte.

Dinoseb results shown are the higher reported of analysis by 8151A and 8270C

DPT - Direct Push Technology

0 30
APPROXIMATE SCALE IN FEET

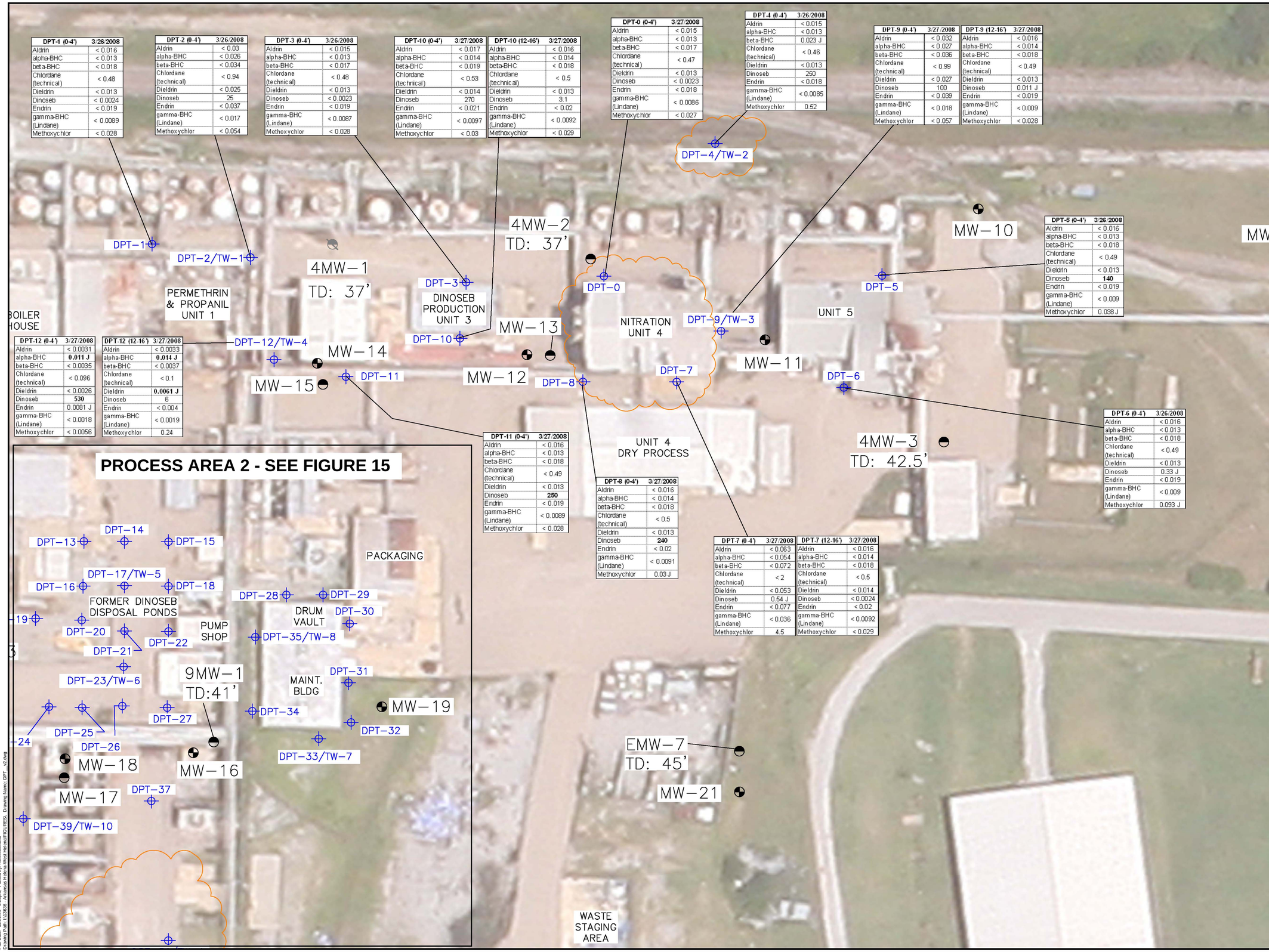
Screening Levels for Soil Samples		
Analyte	*Residential Soil MSSL (0-6" bgs) (mg/kg)*	*DAF (6"-Groundwater) (mg/kg)*
Aldrin	0.029	0.02
alpha-BHC	0.09	0.00003
beta-BHC	0.32	0.0001
Chlordane (technical)	1.6	0.5
Dieldrin	0.03	0.0002
Endrin	18	0.05
gamma-BHC (Lindane)	0.44	0.0005
Methoxychlor	310	8
Dinoseb	61	NA

Pesticides and Herbicides in Soil
Process Area 2
DPT Investigation March 2008

Cedar Chemical
Helena-West Helena, Arkansas

By: MLS | Date: 10/1/08 | Project No. 13636

AMEC Geomatrix | Figure 15



DPT-1 (0-4')	3/26/2008
Aldrin	< 0.016
alpha-BHC	< 0.013
beta-BHC	< 0.018
Chlordane (technical)	< 0.48
Dieldrin	< 0.013
Dinoseb	< 0.0024
Endrin	< 0.019
gamma-BHC (Lindane)	< 0.0089
Methoxychlor	< 0.028

DPT-2 (0-4')	3/26/2008
Aldrin	< 0.03
alpha-BHC	< 0.026
beta-BHC	< 0.034
Chlordane (technical)	< 0.94
Dieldrin	< 0.025
Dinoseb	25
Endrin	< 0.037
gamma-BHC (Lindane)	< 0.017
Methoxychlor	< 0.054

DPT-3 (0-4')	3/26/2008
Aldrin	< 0.015
alpha-BHC	< 0.013
beta-BHC	< 0.017
Chlordane (technical)	< 0.48
Dieldrin	< 0.013
Dinoseb	< 0.0023
Endrin	< 0.019
gamma-BHC (Lindane)	< 0.0087
Methoxychlor	< 0.028

DPT-10 (0-4')	3/27/2008
Aldrin	< 0.017
alpha-BHC	< 0.014
beta-BHC	< 0.019
Chlordane (technical)	< 0.53
Dieldrin	< 0.014
Dinoseb	270
Endrin	< 0.021
gamma-BHC (Lindane)	< 0.0097
Methoxychlor	< 0.03

DPT-10 (12-16')	3/27/2008
Aldrin	< 0.016
alpha-BHC	< 0.014
beta-BHC	< 0.018
Chlordane (technical)	< 0.5
Dieldrin	< 0.013
Dinoseb	3.1
Endrin	< 0.02
gamma-BHC (Lindane)	< 0.0092
Methoxychlor	< 0.029

DPT-0 (0-4')	3/27/2008
Aldrin	< 0.015
alpha-BHC	< 0.013
beta-BHC	< 0.017
Chlordane (technical)	< 0.47
Dieldrin	< 0.013
Dinoseb	< 0.0023
Endrin	< 0.018
gamma-BHC (Lindane)	< 0.0086
Methoxychlor	< 0.027

DPT-4 (0-4')	3/26/2008
Aldrin	< 0.015
alpha-BHC	< 0.013
beta-BHC	0.023 J
Chlordane (technical)	< 0.46
Dieldrin	< 0.013
Dinoseb	250
Endrin	< 0.018
gamma-BHC (Lindane)	< 0.0085
Methoxychlor	0.52

DPT-9 (0-4')	3/27/2008
Aldrin	< 0.032
alpha-BHC	< 0.027
beta-BHC	< 0.036
Chlordane (technical)	< 0.99
Dieldrin	< 0.027
Dinoseb	100
Endrin	< 0.039
gamma-BHC (Lindane)	< 0.018
Methoxychlor	< 0.057

DPT-9 (12-16')	3/27/2008
Aldrin	< 0.016
alpha-BHC	< 0.014
beta-BHC	< 0.018
Chlordane (technical)	< 0.49
Dieldrin	< 0.013
Dinoseb	0.011 J
Endrin	< 0.019
gamma-BHC (Lindane)	< 0.009
Methoxychlor	< 0.028

DPT-5 (0-4')	3/26/2008
Aldrin	< 0.016
alpha-BHC	< 0.013
beta-BHC	< 0.018
Chlordane (technical)	< 0.49
Dieldrin	< 0.013
Dinoseb	**140**
Endrin	< 0.019
gamma-BHC (Lindane)	< 0.009
Methoxychlor	0.038 J

DPT-12 (0-4')	3/27/2008
Aldrin	< 0.0031
alpha-BHC	**0.011 J**
beta-BHC	< 0.0035
Chlordane (technical)	< 0.096
Dieldrin	< 0.0026
Dinoseb	**530**
Endrin	0.0081 J
gamma-BHC (Lindane)	< 0.0018
Methoxychlor	< 0.0056

DPT-12 (12-16')	3/27/2008
Aldrin	< 0.0033
alpha-BHC	**0.014 J**
beta-BHC	< 0.0037
Chlordane (technical)	< 0.1
Dieldrin	**0.0061 J**
Dinoseb	6
Endrin	< 0.004
gamma-BHC (Lindane)	< 0.0019
Methoxychlor	0.24

DPT-11 (0-4')	3/27/2008
Aldrin	< 0.016
alpha-BHC	< 0.013
beta-BHC	< 0.018
Chlordane (technical)	< 0.49
Dieldrin	< 0.013
Dinoseb	**250**
Endrin	< 0.019
gamma-BHC (Lindane)	< 0.0089
Methoxychlor	< 0.028

DPT-8 (0-4')	3/27/2008
Aldrin	< 0.016
alpha-BHC	< 0.014
beta-BHC	< 0.018
Chlordane (technical)	< 0.5
Dieldrin	< 0.013
Dinoseb	**240**
Endrin	< 0.02
gamma-BHC (Lindane)	< 0.0091
Methoxychlor	0.03 J

DPT-7 (0-4')	3/27/2008
Aldrin	< 0.063
alpha-BHC	< 0.054
beta-BHC	< 0.072
Chlordane (technical)	< 2
Dieldrin	< 0.053
Dinoseb	0.54 J
Endrin	< 0.077
gamma-BHC (Lindane)	< 0.036
Methoxychlor	4.5

DPT-7 (12-16')	3/27/2008
Aldrin	< 0.016
alpha-BHC	< 0.014
beta-BHC	< 0.018
Chlordane (technical)	< 0.5
Dieldrin	< 0.014
Dinoseb	< 0.0024
Endrin	< 0.02
gamma-BHC (Lindane)	< 0.0092
Methoxychlor	< 0.029

DPT-6 (0-4')	3/26/2008
Aldrin	< 0.016
alpha-BHC	< 0.013
beta-BHC	< 0.018
Chlordane (technical)	< 0.49
Dieldrin	< 0.013
Dinoseb	0.33 J
Endrin	< 0.019
gamma-BHC (Lindane)	< 0.009
Methoxychlor	0.093 J

EXPLANATION

- Perched Well Location
- Upper Alluvial Aquifer Well Location
- Middle Alluvial Aquifer Well Location
- Lower Alluvial Aquifer Well Location
- Plugged and Abandoned Well
- DPT-5 Direct Push Location
- TW-1 Temporary Well Location
- Suspected Waste Burial Area Identified by ADEQ

Sample ID with Depth

Concentration of Analytes Detected (bold indicates concentration is above screening level)

DPT-25 (2-4')	3/29/2008
Aldrin	**0.28 J**
alpha-BHC	< 0.051
beta-BHC	< 0.068

Analyte not detected above detection limit shown

All results shown are in milligrams per kilogram (mg/kg).

J Estimated concentration for analyte.

Dinoseb results shown are the higher reported of analysis by 8151A and 8270C

DPT - Direct Push Technology

Screening Levels for Soil Samples		
Analyte	*Residential Soil MSSL (0-6" bgs) (mg/kg)*	*DAF (6"-Groundwater) (mg/kg)*
Aldrin	0.029	0.02
alpha-BHC	0.09	0.00003
beta-BHC	0.32	0.0001
Chlordane (technical)	1.6	0.5
Dieldrin	0.03	0.0002
Endrin	18	0.05
gamma-BHC (Lindane)	0.44	0.0005
Methoxychlor	310	8
Dinoseb	61	NA

0 30
APPROXIMATE SCALE IN FEET

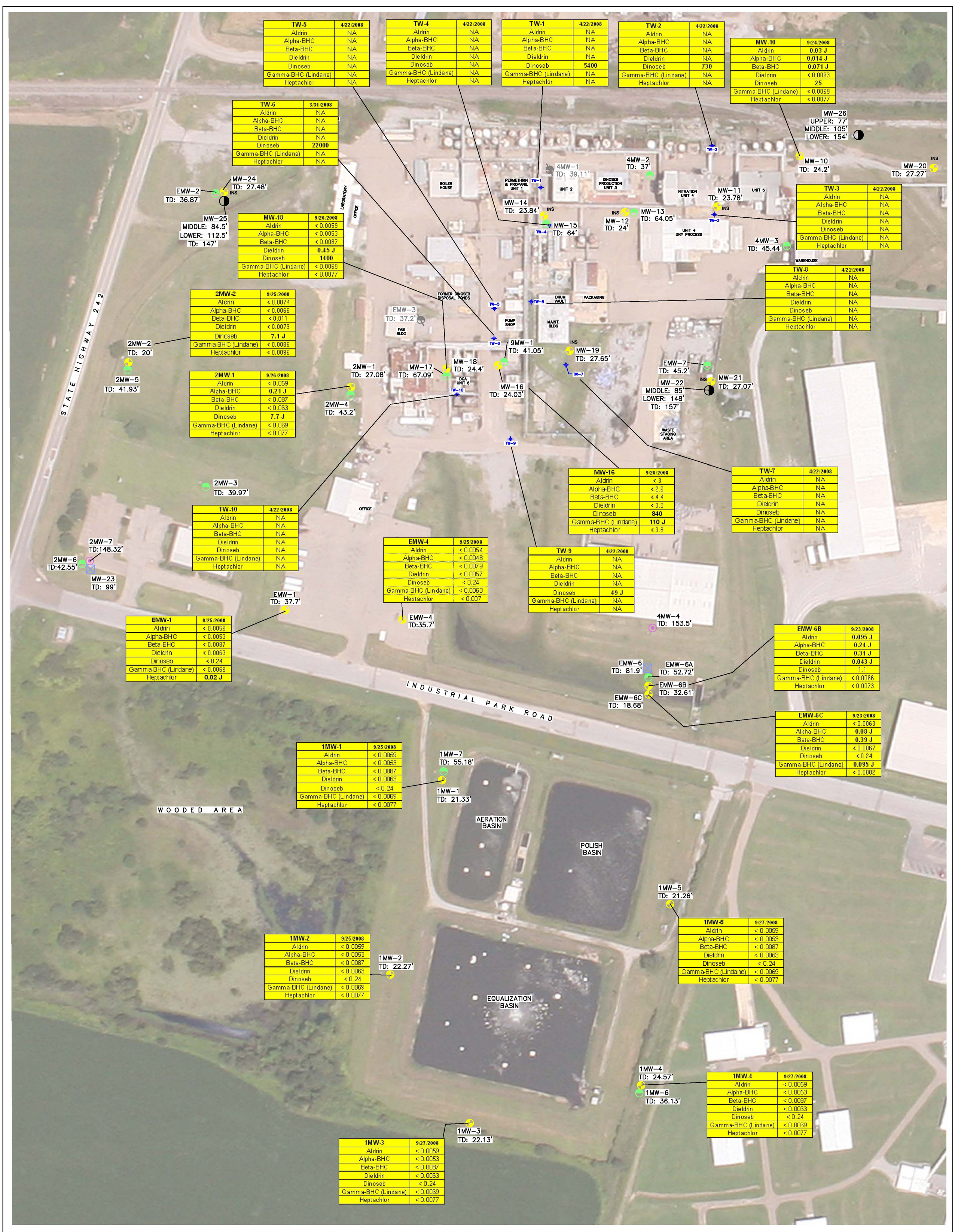
BASEMAP MODIFIED FROM:
Smith & Welland/Cline-Frazer Survey, August 2008

Pesticides and Herbicides in Soil
Process Area 1
DPT Investigation March 2008

Cedar Chemical
Helena-West Helena, Arkansas

By: MLS	Date: 2/10/09	Project No. 13636
AMEC Geomatrix		Figure 16

Plot Date: 02/22/09 - 2:25pm Plotted by: mike.schofield
Drawing Path: 113636 - Arkansas Helena-West Helena\FIGURES\ Drawing Name: DPT_ v2.dwg



TW-5	4/22/2008
Aldrin	NA
Alpha-BHC	NA
Beta-BHC	NA
Dieldrin	NA
Dinoseb	NA
Gamma-BHC (Lindane)	NA
Heptachlor	NA

TW-4	4/22/2008
Aldrin	NA
Alpha-BHC	NA
Beta-BHC	NA
Dieldrin	NA
Dinoseb	NA
Gamma-BHC (Lindane)	NA
Heptachlor	NA

TW-1	4/22/2008
Aldrin	NA
Alpha-BHC	NA
Beta-BHC	NA
Dieldrin	NA
Dinoseb	**5400**
Gamma-BHC (Lindane)	NA
Heptachlor	NA

TW-2	4/22/2008
Aldrin	NA
Alpha-BHC	NA
Beta-BHC	NA
Dieldrin	NA
Dinoseb	**730**
Gamma-BHC (Lindane)	NA
Heptachlor	NA

MW-10	9/24/2008
Aldrin	**0.03 J**
Alpha-BHC	**0.014 J**
Beta-BHC	**0.071 J**
Dieldrin	< 0.0063
Dinoseb	**25**
Gamma-BHC (Lindane)	< 0.0069
Heptachlor	< 0.0077

TW-6	3/31/2008
Aldrin	NA
Alpha-BHC	NA
Beta-BHC	NA
Dieldrin	NA
Dinoseb	**22000**
Gamma-BHC (Lindane)	NA
Heptachlor	NA

MW-18	9/26/2008
Aldrin	< 0.0059
Alpha-BHC	< 0.0053
Beta-BHC	< 0.0087
Dieldrin	**0.45 J**
Dinoseb	**1400**
Gamma-BHC (Lindane)	< 0.0069
Heptachlor	< 0.0077

TW-3	4/22/2008
Aldrin	NA
Alpha-BHC	NA
Beta-BHC	NA
Dieldrin	NA
Dinoseb	NA
Gamma-BHC (Lindane)	NA
Heptachlor	NA

TW-8	4/22/2008
Aldrin	NA
Alpha-BHC	NA
Beta-BHC	NA
Dieldrin	NA
Dinoseb	NA
Gamma-BHC (Lindane)	NA
Heptachlor	NA

2MW-2	9/25/2008
Aldrin	< 0.0074
Alpha-BHC	< 0.0066
Beta-BHC	< 0.011
Dieldrin	< 0.0079
Dinoseb	**7.1 J**
Gamma-BHC (Lindane)	< 0.0086
Heptachlor	< 0.0096

2MW-1	9/26/2008
Aldrin	< 0.059
Alpha-BHC	**0.21 J**
Beta-BHC	< 0.087
Dieldrin	< 0.063
Dinoseb	**7.7 J**
Gamma-BHC (Lindane)	< 0.069
Heptachlor	< 0.077

MW-16	9/26/2008
Aldrin	< 3
Alpha-BHC	< 2.6
Beta-BHC	< 4.4
Dieldrin	< 3.2
Dinoseb	**840**
Gamma-BHC (Lindane)	**110 J**
Heptachlor	< 3.8

TW-7	4/22/2008
Aldrin	NA
Alpha-BHC	NA
Beta-BHC	NA
Dieldrin	NA
Dinoseb	NA
Gamma-BHC (Lindane)	NA
Heptachlor	NA

TW-10	4/22/2008
Aldrin	NA
Alpha-BHC	NA
Beta-BHC	NA
Dieldrin	NA
Dinoseb	NA
Gamma-BHC (Lindane)	NA
Heptachlor	NA

EMW-4	9/25/2008
Aldrin	< 0.0054
Alpha-BHC	< 0.0048
Beta-BHC	< 0.0079
Dieldrin	< 0.0057
Dinoseb	< 0.24
Gamma-BHC (Lindane)	< 0.0063
Heptachlor	< 0.007

TW-9	4/22/2008
Aldrin	NA
Alpha-BHC	NA
Beta-BHC	NA
Dieldrin	NA
Dinoseb	**49 J**
Gamma-BHC (Lindane)	NA
Heptachlor	NA

EMW-1	9/25/2008
Aldrin	< 0.0059
Alpha-BHC	< 0.0053
Beta-BHC	< 0.0087
Dieldrin	< 0.0063
Dinoseb	< 0.24
Gamma-BHC (Lindane)	< 0.0069
Heptachlor	**0.02 J**

EMW-6B	9/23/2008
Aldrin	**0.095 J**
Alpha-BHC	**0.24 J**
Beta-BHC	**0.31 J**
Dieldrin	**0.043 J**
Dinoseb	1.1
Gamma-BHC (Lindane)	< 0.0066
Heptachlor	< 0.0073

EMW-6C	9/23/2008
Aldrin	< 0.0063
Alpha-BHC	**0.08 J**
Beta-BHC	**0.39 J**
Dieldrin	< 0.0067
Dinoseb	< 0.24
Gamma-BHC (Lindane)	**0.095 J**
Heptachlor	< 0.0082

1MW-1	9/25/2008
Aldrin	< 0.0059
Alpha-BHC	< 0.0053
Beta-BHC	< 0.0087
Dieldrin	< 0.0063
Dinoseb	< 0.24
Gamma-BHC (Lindane)	< 0.0069
Heptachlor	< 0.0077

1MW-5	9/27/2008
Aldrin	< 0.0059
Alpha-BHC	< 0.0053
Beta-BHC	< 0.0087
Dieldrin	< 0.0063
Dinoseb	< 0.24
Gamma-BHC (Lindane)	< 0.0069
Heptachlor	< 0.0077

1MW-2	9/25/2008
Aldrin	< 0.0059
Alpha-BHC	< 0.0053
Beta-BHC	< 0.0087
Dieldrin	< 0.0063
Dinoseb	< 0.24
Gamma-BHC (Lindane)	< 0.0069
Heptachlor	< 0.0077

1MW-4	9/27/2008
Aldrin	< 0.0059
Alpha-BHC	< 0.0053
Beta-BHC	< 0.0087
Dieldrin	< 0.0063
Dinoseb	< 0.24
Gamma-BHC (Lindane)	< 0.0069
Heptachlor	< 0.0077

1MW-3	9/27/2008
Aldrin	< 0.0059
Alpha-BHC	< 0.0053
Beta-BHC	< 0.0087
Dieldrin	< 0.0063
Dinoseb	< 0.24
Gamma-BHC (Lindane)	< 0.0069
Heptachlor	< 0.0077

BASEMAP MODIFIED FROM:
Smith & Weiland/Cline-Fraizer Survey, August 2008

EXPLANATION

Sample ID

MW-16	9/26/2008
Aldrin	< 3
Alpha-BHC	< 2.6
Beta-BHC	< 4.4
Dieldrin	< 3.2
Dinoseb	**840**
Gamma-BHC (Lindane)	**110 J**
Heptachlor	< 3.8

Analyte not detected above detection limit shown

Concentration of Analytes Detected (bold indicates concentration is above screening level)

All results shown are in micrograms per liter (ug/L).

Dinoseb results shown are the higher reported of analysis by 8151A and 8270C.

As noted above, TW- samples were collected in March/April 2008 during the DPT Investigation.

J Estimated concentration for analyte.

0 80
APPROXIMATE SCALE IN FEET

Perched Well Location

Upper Alluvial Well Location

Middle Alluvial Well Location

Lower Alluvial Well Location

CMT Well with multiple completions (depths noted above)

Plugged and Abandoned Well

DPT Groundwater Sample Location

INS - Well not sampled due to insufficient water (<1 foot)

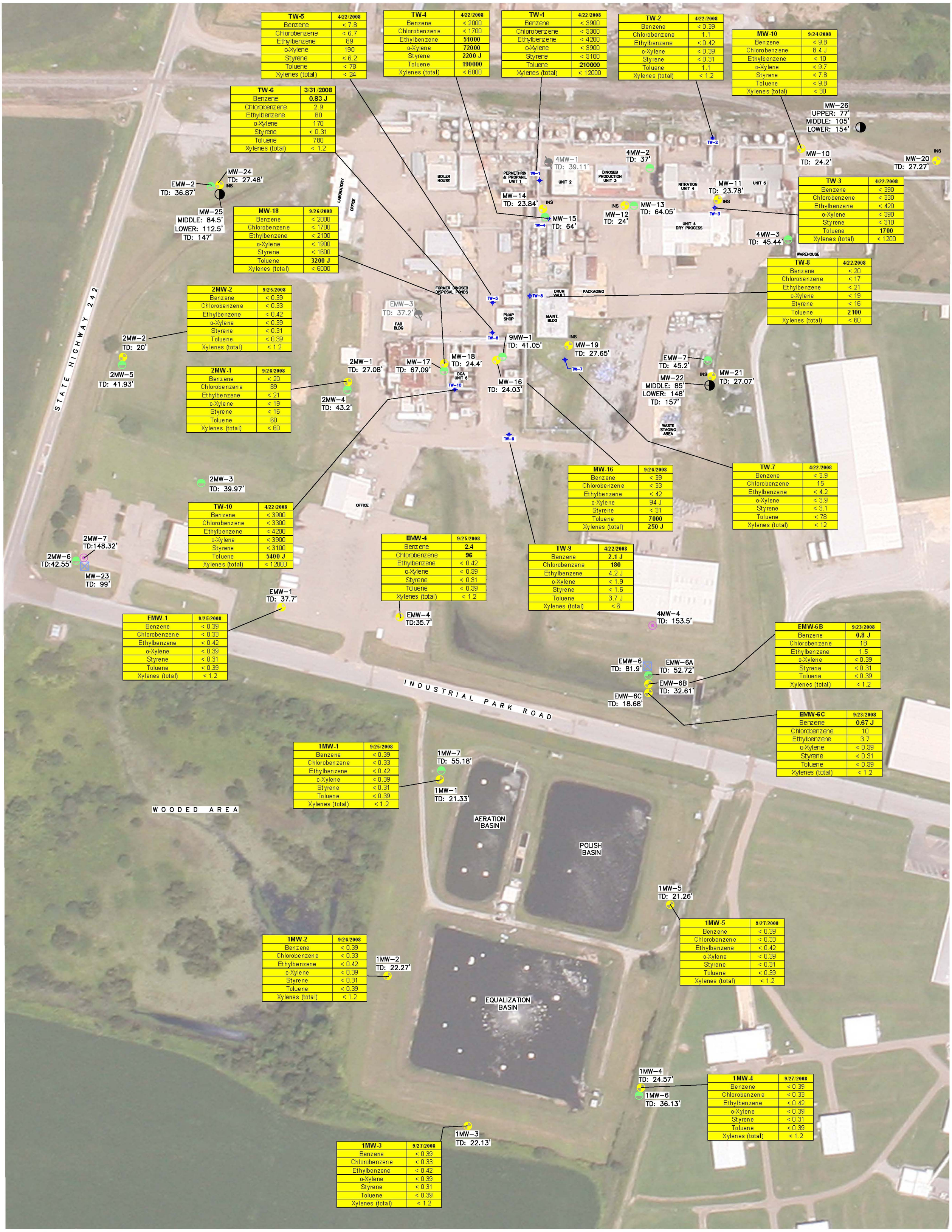
NA - Not Analyzed

Pesticides and Herbicides
in Perched Zone Groundwater
September 2008

Cedar Chemical
Helena-West Helena, Arkansas

By: MLS | Date: 2/10/09 | Project No. 13636

AMEC Geomatrix | Figure 17



TW-5	4/22/2008
Benzene	< 7.8
Chlorobenzene	< 6.7
Ethylbenzene	89
o-Xylene	190
Styrene	< 6.2
Toluene	< 78
Xylenes (total)	< 24

TW-4	4/22/2008
Benzene	< 2000
Chlorobenzene	< 1700
Ethylbenzene	**51000**
o-Xylene	**72000**
Styrene	**2200 J**
Toluene	**190000**
Xylenes (total)	< 6000

TW-1	4/22/2008
Benzene	< 3900
Chlorobenzene	< 3300
Ethylbenzene	< 4200
o-Xylene	< 3900
Styrene	< 3100
Toluene	**210000**
Xylenes (total)	< 12000

TW-2	4/22/2008
Benzene	< 0.39
Chlorobenzene	1.1
Ethylbenzene	< 0.42
o-Xylene	< 0.39
Styrene	< 0.31
Toluene	1.1
Xylenes (total)	< 1.2

MW-10	9/24/2008
Benzene	< 9.8
Chlorobenzene	8.4 J
Ethylbenzene	< 10
o-Xylene	< 9.7
Styrene	< 7.8
Toluene	< 9.8
Xylenes (total)	< 30

TW-6	3/31/2008
Benzene	**0.83 J**
Chlorobenzene	2.9
Ethylbenzene	80
o-Xylene	170
Styrene	< 0.31
Toluene	780
Xylenes (total)	< 1.2

TW-3	4/22/2008
Benzene	< 390
Chlorobenzene	< 330
Ethylbenzene	< 420
o-Xylene	< 390
Styrene	< 310
Toluene	**1700**
Xylenes (total)	< 1200

MW-18	9/26/2008
Benzene	< 2000
Chlorobenzene	< 1700
Ethylbenzene	< 2100
o-Xylene	< 1900
Styrene	< 1600
Toluene	**3200 J**
Xylenes (total)	< 6000

TW-8	4/22/2008
Benzene	< 20
Chlorobenzene	< 17
Ethylbenzene	< 21
o-Xylene	< 19
Styrene	< 16
Toluene	**2100**
Xylenes (total)	< 60

2MW-2	9/25/2008
Benzene	< 0.39
Chlorobenzene	< 0.33
Ethylbenzene	< 0.42
o-Xylene	< 0.39
Styrene	< 0.31
Toluene	< 0.39
Xylenes (total)	< 1.2

2MW-1	9/26/2008
Benzene	< 20
Chlorobenzene	89
Ethylbenzene	< 21
o-Xylene	< 19
Styrene	< 16
Toluene	60
Xylenes (total)	< 60

MW-16	9/26/2008
Benzene	< 39
Chlorobenzene	< 33
Ethylbenzene	< 42
o-Xylene	94 J
Styrene	< 31
Toluene	**7000**
Xylenes (total)	**250 J**

TW-7	4/22/2008
Benzene	< 3.9
Chlorobenzene	15
Ethylbenzene	< 4.2
o-Xylene	< 3.9
Styrene	< 3.1
Toluene	< 78
Xylenes (total)	< 12

TW-10	4/22/2008
Benzene	< 3900
Chlorobenzene	< 3300
Ethylbenzene	< 4200
o-Xylene	< 3900
Styrene	< 3100
Toluene	**5400 J**
Xylenes (total)	< 12000

EMW-4	9/25/2008
Benzene	**2.4**
Chlorobenzene	**96**
Ethylbenzene	< 0.42
o-Xylene	< 0.39
Styrene	< 0.31
Toluene	< 0.39
Xylenes (total)	< 1.2

TW-9	4/22/2008
Benzene	**2.1 J**
Chlorobenzene	**180**
Ethylbenzene	4.2 J
o-Xylene	< 1.9
Styrene	< 1.6
Toluene	3.7 J
Xylenes (total)	< 6

EMW-1	9/25/2008
Benzene	< 0.39
Chlorobenzene	< 0.33
Ethylbenzene	< 0.42
o-Xylene	< 0.39
Styrene	< 0.31
Toluene	< 0.39
Xylenes (total)	< 1.2

EMW-6B	9/23/2008
Benzene	**0.8 J**
Chlorobenzene	18
Ethylbenzene	1.5
o-Xylene	< 0.39
Styrene	< 0.31
Toluene	< 0.39
Xylenes (total)	< 1.2

EMW-6C	9/23/2008
Benzene	**0.67 J**
Chlorobenzene	10
Ethylbenzene	3.7
o-Xylene	< 0.39
Styrene	< 0.31
Toluene	< 0.39
Xylenes (total)	< 1.2

1MW-1	9/25/2008
Benzene	< 0.39
Chlorobenzene	< 0.33
Ethylbenzene	< 0.42
o-Xylene	< 0.39
Styrene	< 0.31
Toluene	< 0.39
Xylenes (total)	< 1.2

1MW-5	9/27/2008
Benzene	< 0.39
Chlorobenzene	< 0.33
Ethylbenzene	< 0.42
o-Xylene	< 0.39
Styrene	< 0.31
Toluene	< 0.39
Xylenes (total)	< 1.2

1MW-2	9/26/2008
Benzene	< 0.39
Chlorobenzene	< 0.33
Ethylbenzene	< 0.42
o-Xylene	< 0.39
Styrene	< 0.31
Toluene	< 0.39
Xylenes (total)	< 1.2

1MW-4	9/27/2008
Benzene	< 0.39
Chlorobenzene	< 0.33
Ethylbenzene	< 0.42
o-Xylene	< 0.39
Styrene	< 0.31
Toluene	< 0.39
Xylenes (total)	< 1.2

1MW-3	9/27/2008
Benzene	< 0.39
Chlorobenzene	< 0.33
Ethylbenzene	< 0.42
o-Xylene	< 0.39
Styrene	< 0.31
Toluene	< 0.39
Xylenes (total)	< 1.2

BASEMAP MODIFIED FROM:
Smith & Weiland/Cline-Fraizer Survey, August 2008

EXPLANATION

MW-16	9/26/2008
Benzene	< 39
Chlorobenzene	< 33
Ethylbenzene	< 42
o-Xylene	94 J
Styrene	< 31
Toluene	**7000**
Xylenes (total)	**250 J**

Sample ID

Analyte not detected above detection limit shown

Concentration of Analytes Detected (bold indicates concentration is above screening level)

All results shown are in micrograms per liter (ug/L).

As noted above, TW- samples were collected in March/April 2008 during the DPT Investigation.

J Estimated concentration for analyte.

0 80
APPROXIMATE SCALE IN FEET

Perched Well Location

Upper Alluvial Well Location

Middle Alluvial Well Location

Lower Alluvial Well Location

CMT Well with multiple completions (depths noted above)

Plugged and Abandoned Well

DPT Groundwater Sample Location

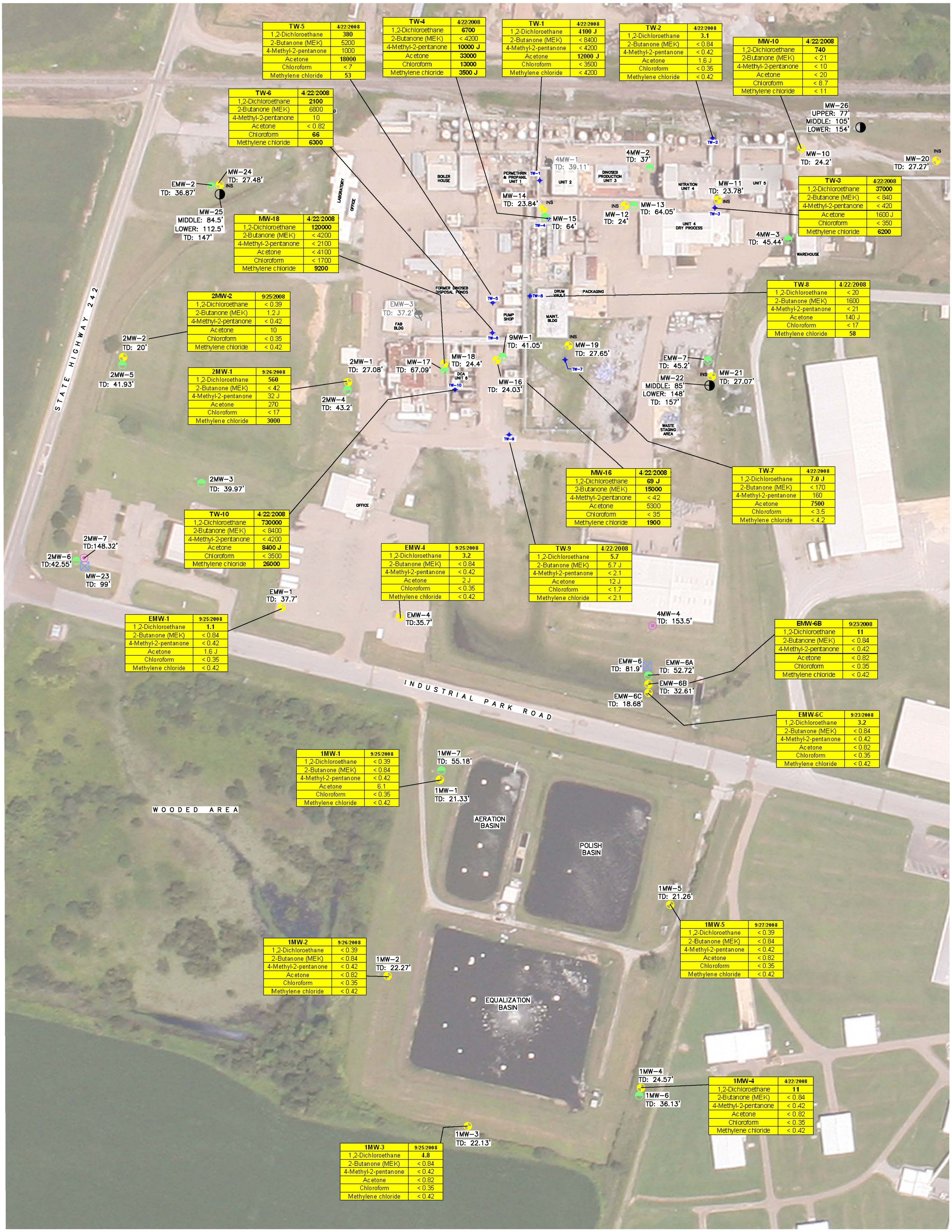
INS - Well not sampled due to insufficient water (<1 foot)

NA - Not Analyzed

VOCs: Aromatic Compounds
in Perched Zone Groundwater
September 2008

Cedar Chemical
Helena-West Helena, Arkansas

By: MLS	Date: 2/10/09	Project No. 13636
AMEC Geomatrix		Figure 18



TW-5	4/22/2008
1,2-Dichloroethane	380
2-Butanone (MEK)	5200
4-Methyl-2-pentanone	1000
Acetone	18000
Chloroform	< 7
Methylene chloride	53

TW-4	4/22/2008
1,2-Dichloroethane	6700
2-Butanone (MEK)	< 4200
4-Methyl-2-pentanone	10000 J
Acetone	33000
Chloroform	13000
Methylene chloride	3500 J

TW-1	4/22/2008
1,2-Dichloroethane	4100 J
2-Butanone (MEK)	< 8400
4-Methyl-2-pentanone	< 4200
Acetone	12000 J
Chloroform	< 3500
Methylene chloride	< 4200

TW-2	4/22/2008
1,2-Dichloroethane	3.1
2-Butanone (MEK)	< 0.84
4-Methyl-2-pentanone	< 0.42
Acetone	1.6 J
Chloroform	< 0.35
Methylene chloride	< 0.42

MW-10	4/22/2008
1,2-Dichloroethane	740
2-Butanone (MEK)	< 21
4-Methyl-2-pentanone	< 10
Acetone	< 20
Chloroform	< 8.7
Methylene chloride	< 11

TW-6	4/22/2008
1,2-Dichloroethane	2100
2-Butanone (MEK)	6800
4-Methyl-2-pentanone	10
Acetone	< 0.82
Chloroform	66
Methylene chloride	6300

TW-3	4/22/2008
1,2-Dichloroethane	37000
2-Butanone (MEK)	< 840
4-Methyl-2-pentanone	< 420
Acetone	1600 J
Chloroform	< 350
Methylene chloride	6200

MW-18	4/22/2008
1,2-Dichloroethane	120000
2-Butanone (MEK)	< 4200
4-Methyl-2-pentanone	< 2100
Acetone	< 4100
Chloroform	< 1700
Methylene chloride	9200

TW-8	4/22/2008
1,2-Dichloroethane	< 20
2-Butanone (MEK)	1600
4-Methyl-2-pentanone	< 21
Acetone	140 J
Chloroform	< 17
Methylene chloride	58

2MW-2	9/25/2008
1,2-Dichloroethane	< 0.39
2-Butanone (MEK)	1.2 J
4-Methyl-2-pentanone	< 0.42
Acetone	10
Chloroform	< 0.35
Methylene chloride	< 0.42

2MW-1	9/26/2008
1,2-Dichloroethane	560
2-Butanone (MEK)	< 42
4-Methyl-2-pentanone	32 J
Acetone	270
Chloroform	< 17
Methylene chloride	3000

MW-16	4/22/2008
1,2-Dichloroethane	69 J
2-Butanone (MEK)	15000
4-Methyl-2-pentanone	< 42
Acetone	5300
Chloroform	< 35
Methylene chloride	1900

TW-7	4/22/2008
1,2-Dichloroethane	7.0 J
2-Butanone (MEK)	< 170
4-Methyl-2-pentanone	160
Acetone	7500
Chloroform	< 3.5
Methylene chloride	< 4.2

TW-10	4/22/2008
1,2-Dichloroethane	730000
2-Butanone (MEK)	< 8400
4-Methyl-2-pentanone	< 4200
Acetone	8400 J
Chloroform	< 3500
Methylene chloride	26000

EMW-4	9/25/2008
1,2-Dichloroethane	3.2
2-Butanone (MEK)	< 0.84
4-Methyl-2-pentanone	< 0.42
Acetone	2 J
Chloroform	< 0.35
Methylene chloride	< 0.42

TW-9	4/22/2008
1,2-Dichloroethane	5.7
2-Butanone (MEK)	5.7 J
4-Methyl-2-pentanone	< 2.1
Acetone	12 J
Chloroform	< 1.7
Methylene chloride	< 2.1

EMW-1	9/25/2008
1,2-Dichloroethane	1.1
2-Butanone (MEK)	< 0.84
4-Methyl-2-pentanone	< 0.42
Acetone	1.6 J
Chloroform	< 0.35
Methylene chloride	< 0.42

EMW-6B	9/23/2008
1,2-Dichloroethane	11
2-Butanone (MEK)	< 0.84
4-Methyl-2-pentanone	< 0.42
Acetone	< 0.82
Chloroform	< 0.35
Methylene chloride	< 0.42

EMW-6C	9/23/2008
1,2-Dichloroethane	3.2
2-Butanone (MEK)	< 0.84
4-Methyl-2-pentanone	< 0.42
Acetone	< 0.82
Chloroform	< 0.35
Methylene chloride	< 0.42

1MW-1	9/25/2008
1,2-Dichloroethane	< 0.39
2-Butanone (MEK)	< 0.84
4-Methyl-2-pentanone	< 0.42
Acetone	6.1
Chloroform	< 0.35
Methylene chloride	< 0.42

1MW-5	9/27/2008
1,2-Dichloroethane	< 0.39
2-Butanone (MEK)	< 0.84
4-Methyl-2-pentanone	< 0.42
Acetone	< 0.82
Chloroform	< 0.35
Methylene chloride	< 0.42

1MW-2	9/26/2008
1,2-Dichloroethane	< 0.39
2-Butanone (MEK)	< 0.84
4-Methyl-2-pentanone	< 0.42
Acetone	< 0.82
Chloroform	< 0.35
Methylene chloride	< 0.42

1MW-4	4/22/2008
1,2-Dichloroethane	11
2-Butanone (MEK)	< 0.84
4-Methyl-2-pentanone	< 0.42
Acetone	< 0.82
Chloroform	< 0.35
Methylene chloride	< 0.42

1MW-3	9/25/2008
1,2-Dichloroethane	4.8
2-Butanone (MEK)	< 0.84
4-Methyl-2-pentanone	< 0.42
Acetone	< 0.82
Chloroform	< 0.35
Methylene chloride	< 0.42

BASEMAP MODIFIED FROM:
Smith & Weiland/Cline-Fraizer Survey, August 2008

EXPLANATION

MW-16	4/22/2008
1,2-Dichloroethane	69 J
2-Butanone (MEK)	15000
4-Methyl-2-pentanone	< 42
Acetone	5300
Chloroform	< 35
Methylene chloride	1900

Sample ID

Analyte not detected above detection limit shown

Concentration of Analytes Detected (bold indicates concentration is above screening level)

All results shown are in micrograms per liter (ug/L).

As noted above, TW- samples were collected in March/April 2008 during the DPT Investigation.

J Estimated concentration for analyte.

0 80
APPROXIMATE SCALE IN FEET

Perched Well Location

Upper Alluvial Well Location

Middle Alluvial Well Location

Lower Alluvial Well Location

CMT Well with multiple completions (depths noted above)

Plugged and Abandoned Well

DPT Groundwater Sample Location

INS - Well not sampled due to insufficient water (<1 foot)

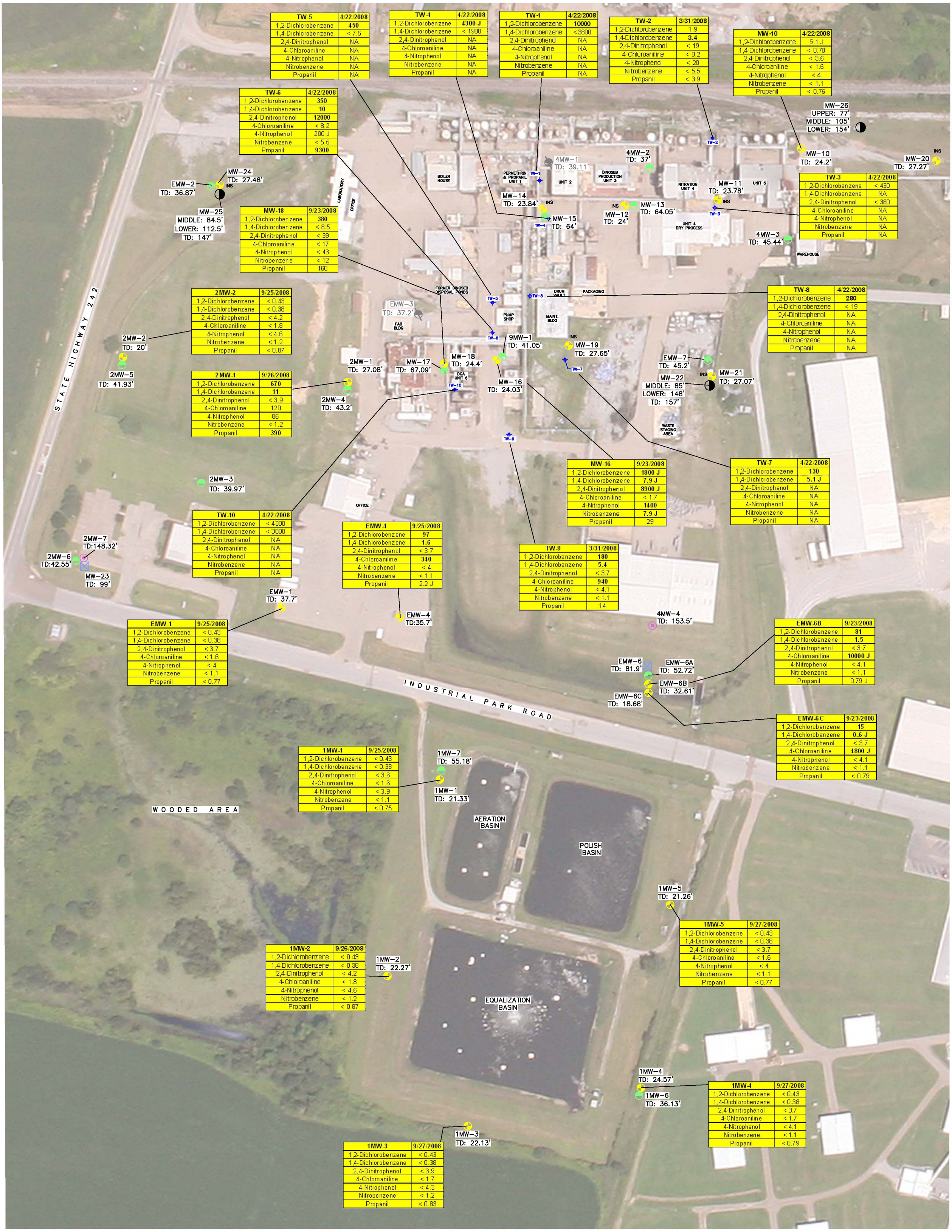
NA - Not Analyzed

VOCs: Ketones, Methanes, and Ethanes in Perched Zone Groundwater
September 2008

Cedar Chemical
Helena-West Helena, Arkansas

By: MLS | Date: 2/10/09 | Project No. 13636

AMEC Geomatrix | Figure 19



TW-5	4/22/2008
1,2-Dichlorobenzene	**450**
1,4-Dichlorobenzene	< 7.5
2,4-Dinitrophenol	NA
4-Chloroaniline	NA
4-Nitrophenol	NA
Nitrobenzene	NA
Propanil	NA

TW-4	4/22/2008
1,2-Dichlorobenzene	**4300 J**
1,4-Dichlorobenzene	< 1900
2,4-Dinitrophenol	NA
4-Chloroaniline	NA
4-Nitrophenol	NA
Nitrobenzene	NA
Propanil	NA

TW-1	4/22/2008
1,2-Dichlorobenzene	**10000**
1,4-Dichlorobenzene	<3800
2,4-Dinitrophenol	NA
4-Chloroaniline	NA
4-Nitrophenol	NA
Nitrobenzene	NA
Propanil	NA

TW-2	3/31/2008
1,2-Dichlorobenzene	1.9
1,4-Dichlorobenzene	**3.4**
2,4-Dinitrophenol	< 19
4-Chloroaniline	< 8.2
4-Nitrophenol	< 20
Nitrobenzene	< 5.5
Propanil	< 3.9

MW-10	4/22/2008
1,2-Dichlorobenzene	5.1 J
1,4-Dichlorobenzene	< 0.78
2,4-Dinitrophenol	< 3.6
4-Chloroaniline	< 1.6
4-Nitrophenol	< 4
Nitrobenzene	< 1.1
Propanil	< 0.76

TW-6	4/22/2008
1,2-Dichlorobenzene	**350**
1,4-Dichlorobenzene	**10**
2,4-Dinitrophenol	**12000**
4-Chloroaniline	< 8.2
4-Nitrophenol	200 J
Nitrobenzene	< 5.5
Propanil	**9300**

TW-3	4/22/2008
1,2-Dichlorobenzene	< 430
1,4-Dichlorobenzene	NA
2,4-Dinitrophenol	< 380
4-Chloroaniline	NA
4-Nitrophenol	NA
Nitrobenzene	NA
Propanil	NA

MW-18	9/23/2008
1,2-Dichlorobenzene	**380**
1,4-Dichlorobenzene	< 8.5
2,4-Dinitrophenol	< 39
4-Chloroaniline	< 17
4-Nitrophenol	< 43
Nitrobenzene	< 12
Propanil	160

TW-8	4/22/2008
1,2-Dichlorobenzene	**280**
1,4-Dichlorobenzene	< 19
2,4-Dinitrophenol	NA
4-Chloroaniline	NA
4-Nitrophenol	NA
Nitrobenzene	NA
Propanil	NA

2MW-2	9/25/2008
1,2-Dichlorobenzene	< 0.43
1,4-Dichlorobenzene	< 0.38
2,4-Dinitrophenol	< 4.2
4-Chloroaniline	< 1.8
4-Nitrophenol	< 4.6
Nitrobenzene	< 1.2
Propanil	< 0.87

2MW-1	9/26/2008
1,2-Dichlorobenzene	**670**
1,4-Dichlorobenzene	**11**
2,4-Dinitrophenol	< 3.9
4-Chloroaniline	120
4-Nitrophenol	86
Nitrobenzene	< 1.2
Propanil	**390**

MW-16	9/23/2008
1,2-Dichlorobenzene	**1800 J**
1,4-Dichlorobenzene	**7.9 J**
2,4-Dinitrophenol	**8900 J**
4-Chloroaniline	< 1.7
4-Nitrophenol	**1400**
Nitrobenzene	**7.9 J**
Propanil	29

TW-7	4/22/2008
1,2-Dichlorobenzene	**130**
1,4-Dichlorobenzene	**5.1 J**
2,4-Dinitrophenol	NA
4-Chloroaniline	NA
4-Nitrophenol	NA
Nitrobenzene	NA
Propanil	NA

TW-10	4/22/2008
1,2-Dichlorobenzene	< 4300
1,4-Dichlorobenzene	< 3800
2,4-Dinitrophenol	NA
4-Chloroaniline	NA
4-Nitrophenol	NA
Nitrobenzene	NA
Propanil	NA

EMW-4	9/25/2008
1,2-Dichlorobenzene	**97**
1,4-Dichlorobenzene	**1.6**
2,4-Dinitrophenol	< 3.7
4-Chloroaniline	**340**
4-Nitrophenol	< 4
Nitrobenzene	< 1.1
Propanil	2.2 J

TW-9	3/31/2008
1,2-Dichlorobenzene	**180**
1,4-Dichlorobenzene	**5.4**
2,4-Dinitrophenol	< 3.7
4-Chloroaniline	**940**
4-Nitrophenol	< 4.1
Nitrobenzene	< 1.1
Propanil	14

EMW-1	9/25/2008
1,2-Dichlorobenzene	< 0.43
1,4-Dichlorobenzene	< 0.38
2,4-Dinitrophenol	< 3.7
4-Chloroaniline	< 1.6
4-Nitrophenol	< 4
Nitrobenzene	< 1.1
Propanil	< 0.77

EMW-6B	9/23/2008
1,2-Dichlorobenzene	**81**
1,4-Dichlorobenzene	**1.5**
2,4-Dinitrophenol	< 3.7
4-Chloroaniline	**10000 J**
4-Nitrophenol	< 4.1
Nitrobenzene	< 1.1
Propanil	0.79 J

EMW-6C	9/23/2008
1,2-Dichlorobenzene	**15**
1,4-Dichlorobenzene	**0.6 J**
2,4-Dinitrophenol	< 3.7
4-Chloroaniline	**4800 J**
4-Nitrophenol	< 4.1
Nitrobenzene	< 1.1
Propanil	< 0.79

1MW-1	9/25/2008
1,2-Dichlorobenzene	< 0.43
1,4-Dichlorobenzene	< 0.38
2,4-Dinitrophenol	< 3.6
4-Chloroaniline	< 1.6
4-Nitrophenol	< 3.9
Nitrobenzene	< 1.1
Propanil	< 0.75

1MW-5	9/27/2008
1,2-Dichlorobenzene	< 0.43
1,4-Dichlorobenzene	< 0.38
2,4-Dinitrophenol	< 3.7
4-Chloroaniline	< 1.6
4-Nitrophenol	< 4
Nitrobenzene	< 1.1
Propanil	< 0.77

1MW-2	9/26/2008
1,2-Dichlorobenzene	< 0.43
1,4-Dichlorobenzene	< 0.38
2,4-Dinitrophenol	< 4.2
4-Chloroaniline	< 1.8
4-Nitrophenol	< 4.6
Nitrobenzene	< 1.2
Propanil	< 0.87

1MW-4	9/27/2008
1,2-Dichlorobenzene	< 0.43
1,4-Dichlorobenzene	< 0.38
2,4-Dinitrophenol	< 3.7
4-Chloroaniline	< 1.7
4-Nitrophenol	< 4.1
Nitrobenzene	< 1.1
Propanil	< 0.79

1MW-3	9/27/2008
1,2-Dichlorobenzene	< 0.43
1,4-Dichlorobenzene	< 0.38
2,4-Dinitrophenol	< 3.9
4-Chloroaniline	< 1.7
4-Nitrophenol	< 4.3
Nitrobenzene	< 1.2
Propanil	< 0.83

BASEMAP MODIFIED FROM:
Smith & Weiland/Cline-Fraizer Survey, August 2008

EXPLANATION

Sample ID

MW-16	9/23/2008
1,2-Dichlorobenzene	**1800 J**
1,4-Dichlorobenzene	**7.9 J**
2,4-Dinitrophenol	**8900 J**
4-Chloroaniline	< 1.7
4-Nitrophenol	**1400**
Nitrobenzene	**7.9 J**
Propanil	29

Analyte not detected above detection limit shown

Concentration of Analytes Detected (bold indicates concentration is above screening level)

All results shown are in micrograms per liter (ug/L).

Dichlorobenzene results shown are the higher reported of analysis by 8260B and 8270C.

As noted above, TW- samples were collected in March/April 2008 during the DPT Investigation.

J Estimated concentration for analyte.

0 80
APPROXIMATE SCALE IN FEET

Perched Well Location

Upper Alluvial Well Location

Middle Alluvial Well Location

Lower Alluvial Well Location

CMT Well with multiple completions (depths noted above)

Plugged and Abandoned Well

DPT Groundwater Sample Location

INS - Well not sampled due to insufficient water (<1 foot)

NA - Not Analyzed

SVOCs in Perched Zone Groundwater
September 2008

Cedar Chemical
Helena-West Helena, Arkansas

By: MLS | Date: 2/10/09 | Project No. 13636

AMEC Geomatrix | Figure 20

BASEMAP MODIFIED FROM:
Smith & Weiland/Cline-Fraizer Survey, August 2008

EXPLANATION

- Perched Well Location
- Upper Alluvial Well Location
- Middle Alluvial Well Location
- Lower Alluvial Well Location
- CMT Well with multiple completions (depths noted above)
- Plugged and Abandoned Well
- DPT Groundwater Sample Location
- **<0.82** Acetone not detected above detection limit shown
- **5300** Concentration of Acetone Detected
- Acetone Isoconcentration Contour

All results shown are in micrograms per liter (ug/L).

TW- samples were collected in March/April 2008 during the DPT Investigation.

J Estimated concentration for analyte.

INS - Well not sampled due to insufficient water (<1 foot)

NA - Not Analyzed

0 80
APPROXIMATE SCALE IN FEET

Acetone in Perched Zone Groundwater
September 2008

Cedar Chemical
Helena-West Helena, Arkansas

By: MLS	Date: 2/10/09	Project No. 13636
AMEC Geomatrix		Figure 21

BASEMAP MODIFIED FROM:
Smith & Weiland/Cline-Fraizer Survey, August 2008

EXPLANATION

- Perched Well Location
- Upper Alluvial Well Location
- Middle Alluvial Well Location
- Lower Alluvial Well Location
- CMT Well with multiple completions (depths noted above)
- Plugged and Abandoned Well
- DPT Groundwater Sample Location
- **<0.82** 1,2-DCA not detected above detection limit shown
- **5300** Concentration of 1,2-DCA Detected
- 1,2-DCA Isoconcentration Contour

All results shown are in micrograms per liter (ug/L).

TW- samples were collected in March/April 2008 during the DPT Investigation.

J Estimated concentration for analyte.

INS - Well not sampled due to insufficient water (<1 foot)

NA - Not Analyzed

N

0 80
APPROXIMATE SCALE IN FEET

1,2-Dichloroethane in
Perched Zone Groundwater
September 2008

Cedar Chemical
Helena-West Helena, Arkansas

By: MLS	Date: 2/10/09	Project No. 13636
AMEC Geomatrix		Figure 22

BASEMAP MODIFIED FROM:
Smith & Weiland/Cline-Fraizer Survey, August 2008

EXPLANATION

- Perched Well Location
- Upper Alluvial Well Location
- Middle Alluvial Well Location
- Lower Alluvial Well Location
- CMT Well with multiple completions (depths noted above)
- Plugged and Abandoned Well
- DPT Groundwater Sample Location
- **<0.82** Toluene not detected above detection limit shown
- **5300** Concentration of Toluene Detected
- Toluene Isoconcentration Contour

All results shown are in micrograms per liter (ug/L).

TW- samples were collected in March/April 2008 during the DPT Investigation.

J Estimated concentration for analyte.

INS - Well not sampled due to insufficient water (<1 foot)

NA - Not Analyzed

0 80
APPROXIMATE SCALE IN FEET

Toluene in Perched Zone Groundwater
September 2008

Cedar Chemical
Helena-West Helena, Arkansas

By: MLS	Date: 2/10/09	Project No. 13636
AMEC Geomatrix		Figure 23

BASEMAP MODIFIED FROM:
Smith & Weiland/Cline-Fraizer Survey, August 2008

EXPLANATION

- Perched Well Location
- Upper Alluvial Well Location
- Middle Alluvial Well Location
- Lower Alluvial Well Location
- CMT Well with multiple completions (depths noted above)
- Plugged and Abandoned Well
- DPT Groundwater Sample Location
- <0.82 — 1,2-DCB not detected above detection limit shown
- 5300 — Concentration of 1,2-DCB Detected
- 1,2-DCB Isoconcentration Contour

All results shown are in micrograms per liter (ug/L).

TW- samples were collected in March/April 2008 during the DPT Investigation.

J Estimated concentration for analyte.

INS - Well not sampled due to insufficient water (<1 foot)

NA - Not Analyzed

0 80
APPROXIMATE SCALE IN FEET

1,2-Dichlorobenzene in
Perched Zone Groundwater
September 2008

Cedar Chemical
Helena-West Helena, Arkansas

By: MLS	Date: 2/10/09	Project No. 13636
AMEC Geomatrix		Figure 24

BASEMAP MODIFIED FROM:
Smith & Weiland/Cline-Fraizer Survey, August 2008

EXPLANATION

- **Perched Well Location**
- **Upper Alluvial Well Location**
- **Middle Alluvial Well Location**
- **Lower Alluvial Well Location**
- **CMT Well with multiple completions (depths noted above)**
- **Plugged and Abandoned Well**
- DPT Groundwater Sample Location
- **<0.82** 4-Chloroaniline not detected above detection limit shown
- **5300** Concentration of 4-Chloroaniline Detected
- 4-Chloroaniline Isoconcentration Contour

All results shown are in micrograms per liter (ug/L).

TW- samples were collected in March/April 2008 during the DPT Investigation.

J Estimated concentration for analyte.

INS - Well not sampled due to insufficient water (<1 foot)

NA - Not Analyzed

0 80
APPROXIMATE SCALE IN FEET

4-Chloroaniline in Perched Zone Groundwater
September 2008

Cedar Chemical
Helena-West Helena, Arkansas

By: MLS	Date: 2/10/09	Project No. 13636
AMEC Geomatrix		Figure 25

BASEMAP MODIFIED FROM:
Smith & Weiland/Cline-Fraizer Survey, August 2008

EXPLANATION

- Perched Well Location
- Upper Alluvial Well Location
- Middle Alluvial Well Location
- Lower Alluvial Well Location
- CMT Well with multiple completions (depths noted above)
- Plugged and Abandoned Well
- DPT Groundwater Sample Location
- **<0.82** Dinoseb not detected above detection limit shown
- **5300** Concentration of Dinoseb Detected
- Dinoseb Isoconcentration Contour

All results shown are in micrograms per liter (ug/L).

TW- samples were collected in March/April 2008 during the DPT Investigation.

J Estimated concentration for analyte.

INS - Well not sampled due to insufficient water (<1 foot)

NA - Not Analyzed

0 80
APPROXIMATE SCALE IN FEET

Dinoseb in Perched Zone Groundwater
September 2008

Cedar Chemical
Helena-West Helena, Arkansas

By: MLS	Date: 2/10/09	Project No. 13636
AMEC Geomatrix		Figure 26

MW-26 Upper	11/5/2008
Aldrin	< 0.0059
Beta-BHC	< 0.0087
Dinoseb	< 0.24
Gamma-BHC (Lindane)	< 0.0069
Heptachlor	< 0.0077
Heptachlor epoxide	< 0.0075

MW-15	9/23/2008
Aldrin	< 0.0057
Beta-BHC	< 0.0084
Dinoseb	< 0.24
Gamma-BHC (Lindane)	0.052 J
Heptachlor	< 0.0075
Heptachlor epoxide	< 0.0073

MW-13	9/23/2008
Aldrin	< 0.0058
Beta-BHC	< 0.0086
Dinoseb	< 0.24
Gamma-BHC (Lindane)	0.017 J
Heptachlor	< 0.0076
Heptachlor epoxide	< 0.0074

EMW-2	9/24/2008
Aldrin	< 0.0059
Beta-BHC	< 0.0087
Dinoseb	< 0.24
Gamma-BHC (Lindane)	< 0.0069
Heptachlor	< 0.0077
Heptachlor epoxide	< 0.0075

4MW-3	9/25/2008
Aldrin	< 0.0059
Beta-BHC	< 0.0087
Dinoseb	6.8 J
Gamma-BHC (Lindane)	< 0.0069
Heptachlor	< 0.0077
Heptachlor epoxide	< 0.0075

OFF-MW-5 Upper	9/26/2008
Aldrin	< 0.0059
Beta-BHC	< 0.0087
Dinoseb	< 0.24
Gamma-BHC (Lindane)	< 0.0069
Heptachlor	< 0.0077
Heptachlor epoxide	< 0.0075

2MW-5	9/25/2008
Aldrin	< 0.0059
Beta-BHC	< 0.0087
Dinoseb	27
Gamma-BHC (Lindane)	< 0.0069
Heptachlor	0.076 J
Heptachlor epoxide	< 0.0075

MW-17	9/23/2008
Aldrin	< 0.0057
Beta-BHC	< 0.0084
Dinoseb	< 0.24
Gamma-BHC (Lindane)	< 0.0067
Heptachlor	< 0.0075
Heptachlor epoxide	< 0.0073

9MW-1	9/24/2008
Aldrin	< 0.0055
Beta-BHC	< 0.0082
Dinoseb	2.8
Gamma-BHC (Lindane)	0.022 J
Heptachlor	< 0.0072
Heptachlor epoxide	< 0.007

OFF-MW-6 Upper	9/27/2008
Aldrin	< 0.0059
Beta-BHC	< 0.0087
Dinoseb	< 0.24
Gamma-BHC (Lindane)	< 0.0069
Heptachlor	< 0.0077
Heptachlor epoxide	< 0.0075

2MW-4	9/24/2008
Aldrin	0.046 J
Beta-BHC	< 0.0083
Dinoseb	2.1
Gamma-BHC (Lindane)	< 0.0066
Heptachlor	< 0.0073
Heptachlor epoxide	0.098

EMW-7	9/25/2008
Aldrin	< 0.0059
Beta-BHC	< 0.0087
Dinoseb	< 0.24
Gamma-BHC (Lindane)	< 0.0069
Heptachlor	< 0.0077
Heptachlor epoxide	< 0.0075

OFF-MW-9 Upper	11/6/2008
Aldrin	< 0.0059
Beta-BHC	< 0.0087
Dinoseb	< 0.24
Gamma-BHC (Lindane)	< 0.0069
Heptachlor	< 0.0077
Heptachlor epoxide	< 0.0075

2MW-3	9/23/2008
Aldrin	0.053
Beta-BHC	0.046 J
Dinoseb	< 0.24
Gamma-BHC (Lindane)	0.059
Heptachlor	< 0.0073
Heptachlor epoxide	< 0.0071

2MW-6	9/24/2008
Aldrin	< 0.0057
Beta-BHC	< 0.0084
Dinoseb	5.8 J
Gamma-BHC (Lindane)	< 0.0067
Heptachlor	< 0.0075
Heptachlor epoxide	< 0.0073

1MW-7	9/25/2008
Aldrin	< 0.0059
Beta-BHC	< 0.0087
Dinoseb	< 0.24
Gamma-BHC (Lindane)	< 0.0069
Heptachlor	< 0.0077
Heptachlor epoxide	< 0.0075

EMW-6A	9/23/2008
Aldrin	< 0.0055
Beta-BHC	0.033 J
Dinoseb	1.8
Gamma-BHC (Lindane)	0.013 J
Heptachlor	< 0.0072
Heptachlor epoxide	< 0.007

OFF-MW-10 Upper	11/6/2008
Aldrin	< 0.0059
Beta-BHC	< 0.0087
Dinoseb	< 0.24
Gamma-BHC (Lindane)	< 0.0069
Heptachlor	< 0.0077
Heptachlor epoxide	< 0.0075

1MW-6	9/27/2008
Aldrin	< 0.0059
Beta-BHC	< 0.0087
Dinoseb	< 0.24
Gamma-BHC (Lindane)	< 0.0069
Heptachlor	< 0.0077
Heptachlor epoxide	< 0.0075

OFF-MW-7 Upper	9/26/2008
Aldrin	< 0.0059
Beta-BHC	< 0.0087
Dinoseb	< 0.24
Gamma-BHC (Lindane)	< 0.0069
Heptachlor	< 0.0077
Heptachlor epoxide	< 0.0075

OFF-MW-11 Upper	11/6/2008
Aldrin	< 0.0059
Beta-BHC	< 0.0087
Dinoseb	< 0.24
Gamma-BHC (Lindane)	< 0.0069
Heptachlor	< 0.0077
Heptachlor epoxide	< 0.0075

OFF-MW-8 Upper	9/28/2008
Aldrin	< 0.0059
Beta-BHC	< 0.0087
Dinoseb	< 0.24
Gamma-BHC (Lindane)	< 0.0069
Heptachlor	< 0.0077
Heptachlor epoxide	< 0.0075

EXPLANATION

- Upper Alluvial Well Location
- Middle Alluvial Well Location
- Lower Alluvial Well Location
- CMT Well with multiple completions (depths noted)
- Plugged and Abandoned Well

Sample ID

2MW-4	9/24/2008
Aldrin	0.046 J
Beta-BHC	< 0.0083
Dinoseb	2.1
Gamma-BHC (Lindane)	< 0.0066
Heptachlor	< 0.0073
Heptachlor epoxide	0.098

Analyte not detected above detection limit shown

Concentration of Analytes Detected (bold indicates concentration is above screening level)

All results shown are in micrograms per liter (ug/L).

Dinoseb results shown are the higher reported of analysis by 8151A and 8270C.

J Estimated concentration for analyte.

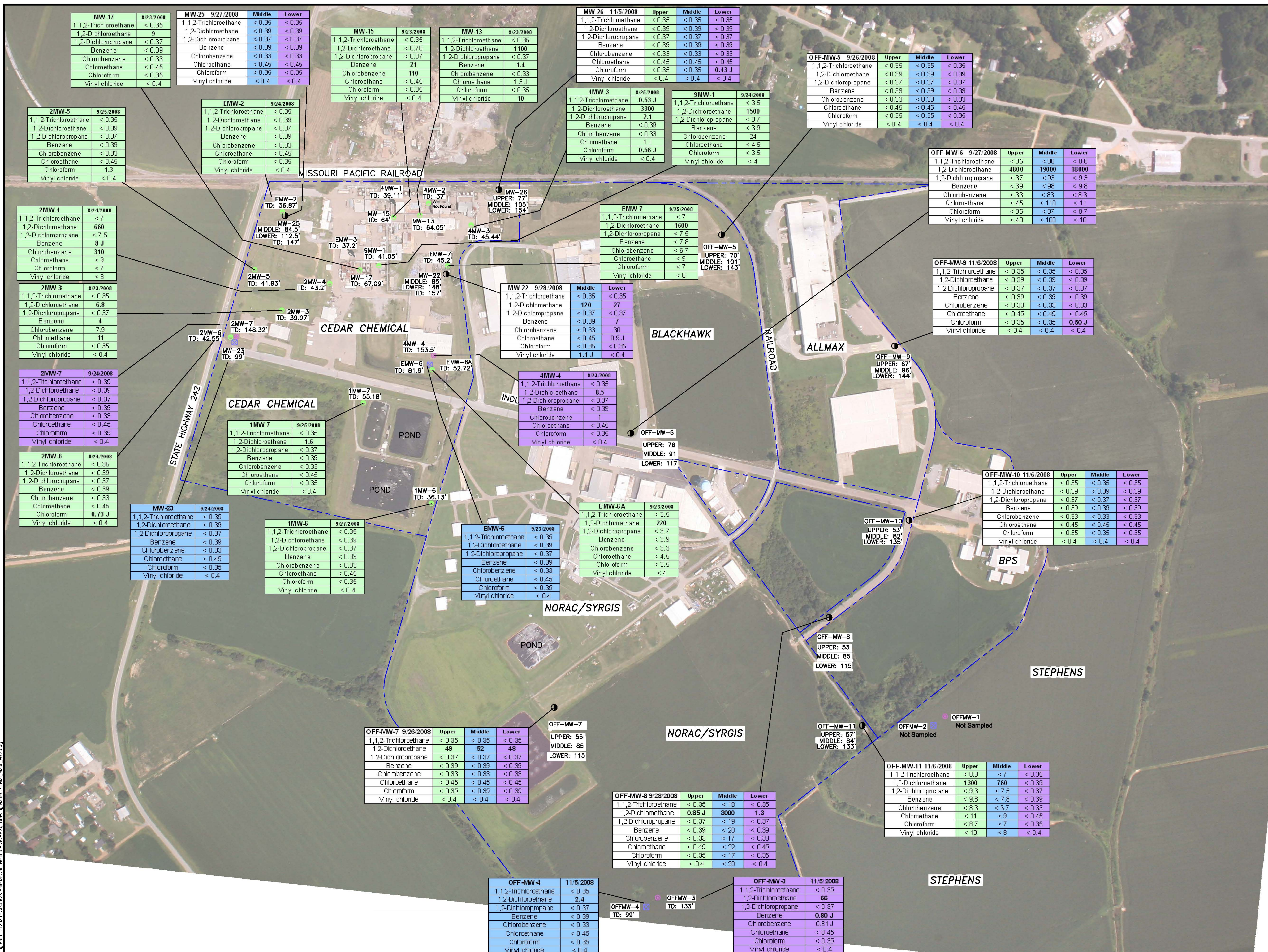
0 125 250
Approximate Scale in Feet

Pesticides and Herbicides in
Upper Alluvial Aquifer Groundwater
September 2008
Cedar Chemical
Helena-West Helena, Arkansas

By: MLS	Date: 2/11/09	Project No. 13636.000
AMEC Geomatrix		Figure 27

Plot Date: 02/21/09 - 11:50am. Plotted by: mike.scholield
Drawing path: U:\2009_Arkansas\Helena-West Helena\FIGURES\, Drawing Name: Alluvial_Maps_ver2.dwg

2/21/09 Alluvial_Maps_ver2.dwg



MW-17	9/23/2008
1,1,2-Trichloroethane	< 0.35
1,2-Dichloroethane	**9**
1,2-Dichloropropane	< 0.37
Benzene	< 0.39
Chlorobenzene	< 0.33
Chloroethane	< 0.45
Chloroform	< 0.35
Vinyl chloride	< 0.4

MW-25 9/27/2008	Middle	Lower
1,1,2-Trichloroethane	< 0.35	< 0.35
1,2-Dichloroethane	< 0.39	< 0.39
1,2-Dichloropropane	< 0.37	< 0.37
Benzene	< 0.39	< 0.39
Chlorobenzene	< 0.33	< 0.33
Chloroethane	< 0.45	< 0.45
Chloroform	< 0.35	< 0.35
Vinyl chloride	< 0.4	< 0.4

MW-15	9/23/2008
1,1,2-Trichloroethane	< 0.35
1,2-Dichloroethane	< 0.78
1,2-Dichloropropane	< 0.37
Benzene	**21**
Chlorobenzene	**110**
Chloroethane	< 0.45
Chloroform	< 0.35
Vinyl chloride	< 0.4

MW-13	9/23/2008
1,1,2-Trichloroethane	< 0.35
1,2-Dichloroethane	**1100**
1,2-Dichloropropane	< 0.37
Benzene	**1.4**
Chlorobenzene	< 0.33
Chloroethane	1.3 J
Chloroform	< 0.35
Vinyl chloride	**10**

MW-26 11/5/2008	Upper	Middle	Lower
1,1,2-Trichloroethane	< 0.35	< 0.35	< 0.35
1,2-Dichloroethane	< 0.39	< 0.39	< 0.39
1,2-Dichloropropane	< 0.37	< 0.37	< 0.37
Benzene	< 0.39	< 0.39	< 0.39
Chlorobenzene	< 0.33	< 0.33	< 0.33
Chloroethane	< 0.45	< 0.45	< 0.45
Chloroform	< 0.35	< 0.35	**0.43 J**
Vinyl chloride	< 0.4	< 0.4	< 0.4

OFF-MW-5 9/26/2008	Upper	Middle	Lower
1,1,2-Trichloroethane	< 0.35	< 0.35	< 0.35
1,2-Dichloroethane	< 0.39	< 0.39	< 0.39
1,2-Dichloropropane	< 0.37	< 0.37	< 0.37
Benzene	< 0.39	< 0.39	< 0.39
Chlorobenzene	< 0.33	< 0.33	< 0.33
Chloroethane	< 0.45	< 0.45	< 0.45
Chloroform	< 0.35	< 0.35	< 0.35
Vinyl chloride	< 0.4	< 0.4	< 0.4

2MW-5	9/25/2008
1,1,2-Trichloroethane	< 0.35
1,2-Dichloroethane	< 0.39
1,2-Dichloropropane	< 0.37
Benzene	< 0.39
Chlorobenzene	< 0.33
Chloroethane	< 0.45
Chloroform	**1.3**
Vinyl chloride	< 0.4

EMW-2	9/24/2008
1,1,2-Trichloroethane	< 0.35
1,2-Dichloroethane	< 0.39
1,2-Dichloropropane	< 0.37
Benzene	< 0.39
Chlorobenzene	< 0.33
Chloroethane	< 0.45
Chloroform	< 0.35
Vinyl chloride	< 0.4

4MW-3	9/25/2008
1,1,2-Trichloroethane	**0.53 J**
1,2-Dichloroethane	**3300**
1,2-Dichloropropane	**2.1**
Benzene	< 0.39
Chlorobenzene	< 0.33
Chloroethane	1 J
Chloroform	**0.56 J**
Vinyl chloride	< 0.4

9MW-1	9/24/2008
1,1,2-Trichloroethane	< 3.5
1,2-Dichloroethane	**1500**
1,2-Dichloropropane	< 3.7
Benzene	< 3.9
Chlorobenzene	24
Chloroethane	< 4.5
Chloroform	< 3.5
Vinyl chloride	< 4

OFF-MW-6 9/27/2008	Upper	Middle	Lower
1,1,2-Trichloroethane	< 35	< 88	< 8.8
1,2-Dichloroethane	**4800**	**19000**	**18000**
1,2-Dichloropropane	< 37	< 93	< 9.3
Benzene	< 39	< 98	< 9.8
Chlorobenzene	< 33	< 83	< 8.3
Chloroethane	< 45	< 110	< 11
Chloroform	< 35	< 87	< 8.7
Vinyl chloride	< 40	< 100	< 10

2MW-4	9/24/2008
1,1,2-Trichloroethane	< 7
1,2-Dichloroethane	**660**
1,2-Dichloropropane	< 7.5
Benzene	**8 J**
Chlorobenzene	**310**
Chloroethane	< 9
Chloroform	< 7
Vinyl chloride	< 8

EMW-7	9/25/2008
1,1,2-Trichloroethane	< 7
1,2-Dichloroethane	**1600**
1,2-Dichloropropane	< 7.5
Benzene	< 7.8
Chlorobenzene	< 6.7
Chloroethane	< 9
Chloroform	< 7
Vinyl chloride	< 8

OFF-MW-9 11/6/2008	Upper	Middle	Lower
1,1,2-Trichloroethane	< 0.35	< 0.35	< 0.35
1,2-Dichloroethane	< 0.39	< 0.39	< 0.39
1,2-Dichloropropane	< 0.37	< 0.37	< 0.37
Benzene	< 0.39	< 0.39	< 0.39
Chlorobenzene	< 0.33	< 0.33	< 0.33
Chloroethane	< 0.45	< 0.45	< 0.45
Chloroform	< 0.35	< 0.35	**0.50 J**
Vinyl chloride	< 0.4	< 0.4	< 0.4

2MW-3	9/23/2008
1,1,2-Trichloroethane	< 0.35
1,2-Dichloroethane	**6.8**
1,2-Dichloropropane	< 0.37
Benzene	**4**
Chlorobenzene	7.9
Chloroethane	**11**
Chloroform	< 0.35
Vinyl chloride	< 0.4

MW-22 9/28/2008	Middle	Lower
1,1,2-Trichloroethane	< 0.35	< 0.35
1,2-Dichloroethane	**120**	**27**
1,2-Dichloropropane	< 0.37	< 0.37
Benzene	< 0.39	**7**
Chlorobenzene	< 0.33	30
Chloroethane	< 0.45	0.9 J
Chloroform	< 0.35	< 0.35
Vinyl chloride	**1.1 J**	< 0.4

2MW-7	9/24/2008
1,1,2-Trichloroethane	< 0.35
1,2-Dichloroethane	< 0.39
1,2-Dichloropropane	< 0.37
Benzene	< 0.39
Chlorobenzene	< 0.33
Chloroethane	< 0.45
Chloroform	< 0.35
Vinyl chloride	< 0.4

4MW-4	9/23/2008
1,1,2-Trichloroethane	< 0.35
1,2-Dichloroethane	**8.5**
1,2-Dichloropropane	< 0.37
Benzene	< 0.39
Chlorobenzene	1
Chloroethane	< 0.45
Chloroform	< 0.35
Vinyl chloride	< 0.4

1MW-7	9/25/2008
1,1,2-Trichloroethane	< 0.35
1,2-Dichloroethane	**1.6**
1,2-Dichloropropane	< 0.37
Benzene	< 0.39
Chlorobenzene	< 0.33
Chloroethane	< 0.45
Chloroform	< 0.35
Vinyl chloride	< 0.4

2MW-6	9/24/2008
1,1,2-Trichloroethane	< 0.35
1,2-Dichloroethane	< 0.39
1,2-Dichloropropane	< 0.37
Benzene	< 0.39
Chlorobenzene	< 0.33
Chloroethane	< 0.45
Chloroform	**0.73 J**
Vinyl chloride	< 0.4

OFF-MW-10 11/6/2008	Upper	Middle	Lower
1,1,2-Trichloroethane	< 0.35	< 0.35	< 0.35
1,2-Dichloroethane	< 0.39	< 0.39	< 0.39
1,2-Dichloropropane	< 0.37	< 0.37	< 0.37
Benzene	< 0.39	< 0.39	< 0.39
Chlorobenzene	< 0.33	< 0.33	< 0.33
Chloroethane	< 0.45	< 0.45	< 0.45
Chloroform	< 0.35	< 0.35	< 0.35
Vinyl chloride	< 0.4	< 0.4	< 0.4

EMW-6A	9/23/2008
1,1,2-Trichloroethane	< 3.5
1,2-Dichloroethane	**220**
1,2-Dichloropropane	< 3.7
Benzene	< 3.9
Chlorobenzene	< 3.3
Chloroethane	< 4.5
Chloroform	< 3.5
Vinyl chloride	< 4

MW-23	9/24/2008
1,1,2-Trichloroethane	< 0.35
1,2-Dichloroethane	< 0.39
1,2-Dichloropropane	< 0.37
Benzene	< 0.39
Chlorobenzene	< 0.33
Chloroethane	< 0.45
Chloroform	< 0.35
Vinyl chloride	< 0.4

1MW-6	9/27/2008
1,1,2-Trichloroethane	< 0.35
1,2-Dichloroethane	< 0.39
1,2-Dichloropropane	< 0.37
Benzene	< 0.39
Chlorobenzene	< 0.33
Chloroethane	< 0.45
Chloroform	< 0.35
Vinyl chloride	< 0.4

EMW-6	9/23/2008
1,1,2-Trichloroethane	< 0.35
1,2-Dichloroethane	< 0.39
1,2-Dichloropropane	< 0.37
Benzene	< 0.39
Chlorobenzene	< 0.33
Chloroethane	< 0.45
Chloroform	< 0.35
Vinyl chloride	< 0.4

OFF-MW-7 9/26/2008	Upper	Middle	Lower
1,1,2-Trichloroethane	< 0.35	< 0.35	< 0.35
1,2-Dichloroethane	**49**	**52**	**48**
1,2-Dichloropropane	< 0.37	< 0.37	< 0.37
Benzene	< 0.39	< 0.39	< 0.39
Chlorobenzene	< 0.33	< 0.33	< 0.33
Chloroethane	< 0.45	< 0.45	< 0.45
Chloroform	< 0.35	< 0.35	< 0.35
Vinyl chloride	< 0.4	< 0.4	< 0.4

OFF-MW-11 11/6/2008	Upper	Middle	Lower
1,1,2-Trichloroethane	< 8.8	< 7	< 0.35
1,2-Dichloroethane	**1300**	**760**	< 0.39
1,2-Dichloropropane	< 9.3	< 7.5	< 0.37
Benzene	< 9.8	< 7.8	< 0.39
Chlorobenzene	< 8.3	< 6.7	< 0.33
Chloroethane	< 11	< 9	< 0.45
Chloroform	< 8.7	< 7	< 0.35
Vinyl chloride	< 10	< 8	< 0.4

OFF-MW-8 9/28/2008	Upper	Middle	Lower
1,1,2-Trichloroethane	< 0.35	< 18	< 0.35
1,2-Dichloroethane	**0.85 J**	**3000**	**1.3**
1,2-Dichloropropane	< 0.37	< 19	< 0.37
Benzene	< 0.39	< 20	< 0.39
Chlorobenzene	< 0.33	< 17	< 0.33
Chloroethane	< 0.45	< 22	< 0.45
Chloroform	< 0.35	< 17	< 0.35
Vinyl chloride	< 0.4	< 20	< 0.4

OFF-MW-4	11/5/2008
1,1,2-Trichloroethane	< 0.35
1,2-Dichloroethane	**2.4**
1,2-Dichloropropane	< 0.37
Benzene	< 0.39
Chlorobenzene	< 0.33
Chloroethane	< 0.45
Chloroform	< 0.35
Vinyl chloride	< 0.4

OFF-MW-3	11/5/2008
1,1,2-Trichloroethane	< 0.35
1,2-Dichloroethane	**66**
1,2-Dichloropropane	< 0.37
Benzene	**0.80 J**
Chlorobenzene	0.81 J
Chloroethane	< 0.45
Chloroform	< 0.35
Vinyl chloride	< 0.4

EXPLANATION

- Upper Alluvial Well Location
- Middle Alluvial Well Location
- Lower Alluvial Well Location
- CMT Well with multiple completions (depths noted)
- Plugged and Abandoned Well

Sample ID

9MW-1	9/24/2008
1,2-Dichlorobenzene	**53 J**
1,3-Dichlorobenzene	< 3.9
1,4-Dichlorobenzene	**1 J**
4-Chloroaniline	61
Aniline	< 2
bis(2-Chloroethyl) ether	< 0.52

Analyte not detected above detection limit shown

Concentration of Analytes Detected (bold indicates concentration is above screening level)

All results shown are in micrograms per liter (ug/L).

J Estimated concentration for analyte.

0 125 250
Approximate Scale in Feet

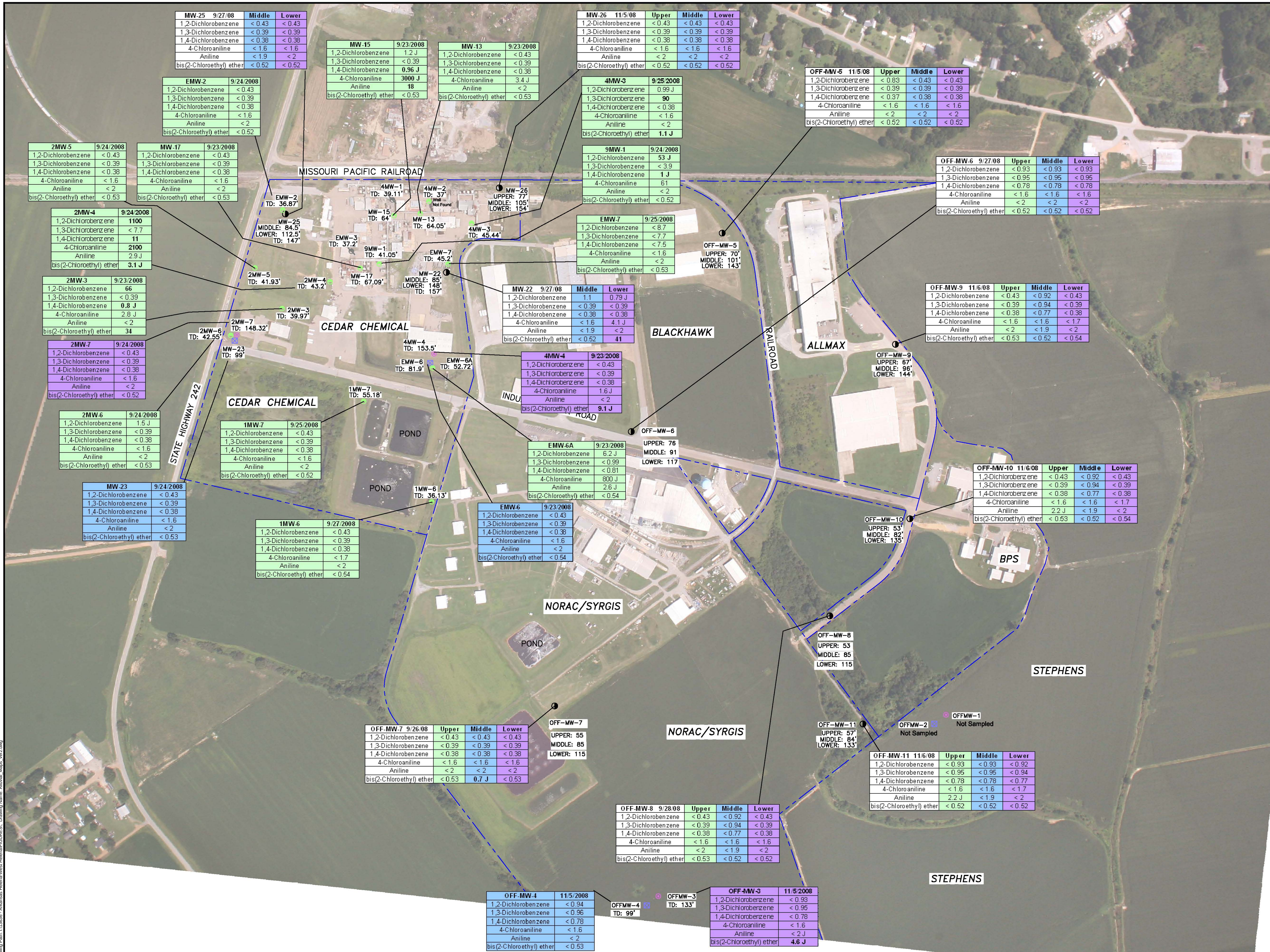
VOCs in Alluvial Aquifer Groundwater
September 2008
Cedar Chemical
Helena-West Helena, Arkansas

By: MLS | Date: 2/11/09 | Project No. 13636.000

AMEC Geomatrix | Figure 28

Plot Date: 02/21/09 - 12:51pm, Plotted by: mike.schofield
Drawing Path: I:\13636 - Arkansas Helena-West Helena\FIGURES\, Drawing Name: Alluvial_Maps_ver2.dwg

2/21/09 Alluvial_Maps_ver2.dwg



MW-25 9/27/08	Middle	Lower
1,2-Dichlorobenzene	< 0.43	< 0.43
1,3-Dichlorobenzene	< 0.39	< 0.39
1,4-Dichlorobenzene	< 0.38	< 0.38
4-Chloroaniline	< 1.6	< 1.6
Aniline	< 1.9	< 2
bis(2-Chloroethyl) ether	< 0.52	< 0.52

MW-26 11/5/08	Upper	Middle	Lower
1,2-Dichlorobenzene	< 0.43	< 0.43	< 0.43
1,3-Dichlorobenzene	< 0.39	< 0.39	< 0.39
1,4-Dichlorobenzene	< 0.38	< 0.38	< 0.38
4-Chloroaniline	< 1.6	< 1.6	< 1.6
Aniline	< 2	< 2	< 2
bis(2-Chloroethyl) ether	< 0.52	< 0.52	< 0.52

MW-15	9/23/2008
1,2-Dichlorobenzene	1.2 J
1,3-Dichlorobenzene	< 0.39
1,4-Dichlorobenzene	**0.96 J**
4-Chloroaniline	**3000 J**
Aniline	**18**
bis(2-Chloroethyl) ether	< 0.53

MW-13	9/23/2008
1,2-Dichlorobenzene	< 0.43
1,3-Dichlorobenzene	< 0.39
1,4-Dichlorobenzene	< 0.38
4-Chloroaniline	3.4 J
Aniline	< 2
bis(2-Chloroethyl) ether	< 0.53

EMW-2	9/24/2008
1,2-Dichlorobenzene	< 0.43
1,3-Dichlorobenzene	< 0.39
1,4-Dichlorobenzene	< 0.38
4-Chloroaniline	< 1.6
Aniline	< 2
bis(2-Chloroethyl) ether	< 0.52

4MW-3	9/25/2008
1,2-Dichlorobenzene	0.99 J
1,3-Dichlorobenzene	**90**
1,4-Dichlorobenzene	< 0.38
4-Chloroaniline	< 1.6
Aniline	< 2
bis(2-Chloroethyl) ether	**1.1 J**

OFF-MW-5 11/5/08	Upper	Middle	Lower
1,2-Dichlorobenzene	< 0.83	< 0.43	< 0.43
1,3-Dichlorobenzene	< 0.39	< 0.39	< 0.39
1,4-Dichlorobenzene	< 0.37	< 0.38	< 0.38
4-Chloroaniline	< 1.6	< 1.6	< 1.6
Aniline	< 2	< 2	< 2
bis(2-Chloroethyl) ether	< 0.52	< 0.52	< 0.52

2MW-5	9/24/2008
1,2-Dichlorobenzene	< 0.43
1,3-Dichlorobenzene	< 0.39
1,4-Dichlorobenzene	< 0.38
4-Chloroaniline	< 1.6
Aniline	< 2
bis(2-Chloroethyl) ether	< 0.53

MW-17	9/23/2008
1,2-Dichlorobenzene	< 0.43
1,3-Dichlorobenzene	< 0.39
1,4-Dichlorobenzene	< 0.38
4-Chloroaniline	< 1.6
Aniline	< 2
bis(2-Chloroethyl) ether	< 0.53

9MW-1	9/24/2008
1,2-Dichlorobenzene	**53 J**
1,3-Dichlorobenzene	< 3.9
1,4-Dichlorobenzene	**1 J**
4-Chloroaniline	61
Aniline	< 2
bis(2-Chloroethyl) ether	< 0.52

OFF-MW-6 9/27/08	Upper	Middle	Lower
1,2-Dichlorobenzene	< 0.93	< 0.93	< 0.93
1,3-Dichlorobenzene	< 0.95	< 0.95	< 0.95
1,4-Dichlorobenzene	< 0.78	< 0.78	< 0.78
4-Chloroaniline	< 1.6	< 1.6	< 1.6
Aniline	< 2	< 2	< 2
bis(2-Chloroethyl) ether	< 0.52	< 0.52	< 0.52

2MW-4	9/24/2008
1,2-Dichlorobenzene	**1100**
1,3-Dichlorobenzene	< 7.7
1,4-Dichlorobenzene	**11**
4-Chloroaniline	**2100**
Aniline	2.9 J
bis(2-Chloroethyl) ether	**3.1 J**

EMW-7	9/25/2008
1,2-Dichlorobenzene	< 8.7
1,3-Dichlorobenzene	< 7.7
1,4-Dichlorobenzene	< 7.5
4-Chloroaniline	< 1.6
Aniline	< 2
bis(2-Chloroethyl) ether	< 0.53

2MW-3	9/23/2008
1,2-Dichlorobenzene	66
1,3-Dichlorobenzene	< 0.39
1,4-Dichlorobenzene	**0.8 J**
4-Chloroaniline	2.8 J
Aniline	< 2
bis(2-Chloroethyl) ether	**34**

MW-22 9/27/08	Middle	Lower
1,2-Dichlorobenzene	1.1	0.79 J
1,3-Dichlorobenzene	< 0.39	< 0.39
1,4-Dichlorobenzene	< 0.38	< 0.38
4-Chloroaniline	< 1.6	4.1 J
Aniline	< 1.9	< 2
bis(2-Chloroethyl) ether	< 0.52	**41**

OFF-MW-9 11/6/08	Upper	Middle	Lower
1,2-Dichlorobenzene	< 0.43	< 0.92	< 0.43
1,3-Dichlorobenzene	< 0.39	< 0.94	< 0.39
1,4-Dichlorobenzene	< 0.38	< 0.77	< 0.38
4-Chloroaniline	< 1.6	< 1.6	< 1.7
Aniline	< 2	< 1.9	< 2
bis(2-Chloroethyl) ether	< 0.53	< 0.52	< 0.54

2MW-7	9/24/2008
1,2-Dichlorobenzene	< 0.43
1,3-Dichlorobenzene	< 0.39
1,4-Dichlorobenzene	< 0.38
4-Chloroaniline	< 1.6
Aniline	< 2
bis(2-Chloroethyl) ether	< 0.52

4MW-4	9/23/2008
1,2-Dichlorobenzene	< 0.43
1,3-Dichlorobenzene	< 0.39
1,4-Dichlorobenzene	< 0.38
4-Chloroaniline	1.6 J
Aniline	< 2
bis(2-Chloroethyl) ether	**9.1 J**

2MW-6	9/24/2008
1,2-Dichlorobenzene	1.5 J
1,3-Dichlorobenzene	< 0.39
1,4-Dichlorobenzene	< 0.38
4-Chloroaniline	< 1.6
Aniline	< 2
bis(2-Chloroethyl) ether	< 0.53

1MW-7	9/25/2008
1,2-Dichlorobenzene	< 0.43
1,3-Dichlorobenzene	< 0.39
1,4-Dichlorobenzene	< 0.38
4-Chloroaniline	< 1.6
Aniline	< 2
bis(2-Chloroethyl) ether	< 0.52

EMW-6A	9/23/2008
1,2-Dichlorobenzene	6.2 J
1,3-Dichlorobenzene	< 0.99
1,4-Dichlorobenzene	< 0.81
4-Chloroaniline	800 J
Aniline	2.6 J
bis(2-Chloroethyl) ether	< 0.54

OFF-MW-10 11/6/08	Upper	Middle	Lower
1,2-Dichlorobenzene	< 0.43	< 0.92	< 0.43
1,3-Dichlorobenzene	< 0.39	< 0.94	< 0.39
1,4-Dichlorobenzene	< 0.38	< 0.77	< 0.38
4-Chloroaniline	< 1.6	< 1.6	< 1.7
Aniline	2.2 J	< 1.9	< 2
bis(2-Chloroethyl) ether	< 0.53	< 0.52	< 0.54

MW-23	9/24/2008
1,2-Dichlorobenzene	< 0.43
1,3-Dichlorobenzene	< 0.39
1,4-Dichlorobenzene	< 0.38
4-Chloroaniline	< 1.6
Aniline	< 2
bis(2-Chloroethyl) ether	< 0.53

EMW-6	9/23/2008
1,2-Dichlorobenzene	< 0.43
1,3-Dichlorobenzene	< 0.39
1,4-Dichlorobenzene	< 0.38
4-Chloroaniline	< 1.6
Aniline	< 2
bis(2-Chloroethyl) ether	< 0.54

1MW-6	9/27/2008
1,2-Dichlorobenzene	< 0.43
1,3-Dichlorobenzene	< 0.39
1,4-Dichlorobenzene	< 0.38
4-Chloroaniline	< 1.7
Aniline	< 2
bis(2-Chloroethyl) ether	< 0.54

OFF-MW-7 9/26/08	Upper	Middle	Lower
1,2-Dichlorobenzene	< 0.43	< 0.43	< 0.43
1,3-Dichlorobenzene	< 0.39	< 0.39	< 0.39
1,4-Dichlorobenzene	< 0.38	< 0.38	< 0.38
4-Chloroaniline	< 1.6	< 1.6	< 1.6
Aniline	< 2	< 2	< 2
bis(2-Chloroethyl) ether	< 0.53	**0.7 J**	< 0.53

OFF-MW-11 11/6/08	Upper	Middle	Lower
1,2-Dichlorobenzene	< 0.93	< 0.93	< 0.92
1,3-Dichlorobenzene	< 0.95	< 0.95	< 0.94
1,4-Dichlorobenzene	< 0.78	< 0.78	< 0.77
4-Chloroaniline	< 1.6	< 1.6	< 1.7
Aniline	2.2 J	< 1.9	< 2
bis(2-Chloroethyl) ether	< 0.52	< 0.52	< 0.52

OFF-MW-8 9/28/08	Upper	Middle	Lower
1,2-Dichlorobenzene	< 0.43	< 0.92	< 0.43
1,3-Dichlorobenzene	< 0.39	< 0.94	< 0.39
1,4-Dichlorobenzene	< 0.38	< 0.77	< 0.38
4-Chloroaniline	< 1.6	< 1.6	< 1.6
Aniline	< 2	< 1.9	< 2
bis(2-Chloroethyl) ether	< 0.53	< 0.52	< 0.52

OFF-MW-4	11/5/2008
1,2-Dichlorobenzene	< 0.94
1,3-Dichlorobenzene	< 0.96
1,4-Dichlorobenzene	< 0.78
4-Chloroaniline	< 1.6
Aniline	< 2
bis(2-Chloroethyl) ether	< 0.53

OFF-MW-3	11/5/2008
1,2-Dichlorobenzene	< 0.93
1,3-Dichlorobenzene	< 0.95
1,4-Dichlorobenzene	< 0.78
4-Chloroaniline	< 1.6
Aniline	< 2 J
bis(2-Chloroethyl) ether	**4.6 J**

EXPLANATION

- Upper Alluvial Well Location
- Middle Alluvial Well Location
- Lower Alluvial Well Location
- CMT Well with multiple completions (depths noted)
- Plugged and Abandoned Well

Sample ID

9MW-1	9/24/2008
1,2-Dichlorobenzene	**53 J**
1,3-Dichlorobenzene	< 3.9
1,4-Dichlorobenzene	**1 J**
4-Chloroaniline	61
Aniline	< 2
bis(2-Chloroethyl) ether	< 0.52

Analyte not detected above detection limit shown

Concentration of Analytes Detected (bold indicates concentration is above screening level)

All results shown are in micrograms per liter (ug/L).

Dichlorobenzene results shown are the higher reported of analysis by 8260B and 8270C.

J Estimated concentration for analyte.

SVOCs in Alluvial Aquifer Groundwater
September 2008
Cedar Chemical
Helena-West Helena, Arkansas

By: MLS	Date: 2/11/09	Project No. 13636.000
AMEC Geomatrix		Figure 29

Plot Date: 02/21/09 - 12:04pm, Plotted by: mike.schofield
Drawing Path: I:\13636 - Arkansas\Helena West Helena\FIGURES\, Drawing Name: Alluvial_Maps_ver2.dwg

2/21/09 Alluvial_Maps_ver2.dwg

EXPLANATION

- Upper Alluvial Well Location
- Middle Alluvial Well Location
- Lower Alluvial Well Location
- CMT Well with multiple completions (depths noted)
- Plugged and Abandoned Well

2100 Concentration of 4-Chloroaniline Detected

<1.6 4-Chloroaniline not detected above detection limit shown

Boundary of Detections of 4-Chloroaniline in the Alluvial Aquifer

All results shown are in micrograms per liter (ug/L).

Dichlorobezene results shown are the higher reported of analysis by 8260B and 8270C.

J Estimated concentration for analyte.

N

0 125 250
Approximate Scale in Feet

4-Chloroaniline Presence in
Alluvial Aquifer Groundwater
September 2008
Cedar Chemical
Helena-West Helena, Arkansas

By: MLS	Date: 2/11/09	Project No. 13636.000
AMEC Geomatrix		Figure 30

Plot Date: 02/21/09 - 12:14pm. Plotted by: mike.schofield
Drawing Path: I:\13636 - Arkansas Helena-West Helena\FIG\LRES\, Drawing Name: Alluvial_Maps_ver2.dwg

21/09 Alluvial_Maps_ver2.dwg

EXPLANATION

- Upper Alluvial Well Location
- Middle Alluvial Well Location
- Lower Alluvial Well Location
- CMT Well with multiple completions (depths noted)
- Plugged and Abandoned Well

2100 Concentration of 1,2-DCB Detected

<0.24 1,2-DCB not detected above detection limit shown

Boundary of Detections of 1,2 DCB in the Alluvial Aquifer

All results shown are in micrograms per liter (ug/L).

Dichlorobezene results shown are the higher reported of analysis by 8260B and 8270C.

J Estimated concentration for analyte.

0 125 250
Approximate Scale in Feet

1,2-Dichlorobenzene Presence in
Alluvial Aquifer Groundwater
September 2008
Cedar Chemical
Helena-West Helena, Arkansas

By: MLS	Date: 2/11/09	Project No. 13636.000
AMEC Geomatrix		Figure 31

Plot Date: 02/21/09 - 12:19pm, Plotted by: mike.schofield
Drawing Path: I:\13636 - Arkansas Helena-West Helena\FIGURES\, Drawing Name: Alluvial_Maps_ver2.dwg

21/09 Alluvial_Maps_ver2.dwg

EXPLANATION

- Upper Alluvial Well Location
- Middle Alluvial Well Location
- Lower Alluvial Well Location
- CMT Well with multiple completions (depths noted)
- Plugged and Abandoned Well

2100 Concentration of Dinoseb Detected

<0.24 Dinoseb not detected above detection limit shown

Boundary of Detections of Dinoseb in the Alluvial Aquifer

All results shown are in micrograms per liter (ug/L).

Dinoseb results shown are the higher reported of analysis by 8151A and 8270C.

J Estimated concentration for analyte.

0 125 250
Approximate Scale in Feet

Dinoseb in Alluvial Aquifer Groundwater
September 2008
Cedar Chemical
Helena-West Helena, Arkansas

By: MLS	Date: 2/11/09	Project No. 13636.000
AMEC Geomatrix		Figure 32

Plot Date: 02/21/09 - 12:59pm, Plotted by: mike.schofield
Drawing Path: I:\13636 - Arkansas Helena-West Helena\FIGURES\, Drawing Name: Alluvial_Maps_ver2.dwg

2/09 Alluvial_Maps_ver2.dwg

EXPLANATION

- Upper Alluvial Well Location
- Middle Alluvial Well Location
- Lower Alluvial Well Location
- CMT Well with multiple completions (screen depths noted)
- 100 — 1,2-DCA Isoconcentration Line
- Upper: 4800 / Middle: 19000 / Lower: 18000 — 1,2-DCA concentration in micrograms per liter (µg/l)

Unit within Alluvial Aquifer

Isoconcentration contours were drawn using the highest concentration detected at each well location

0 125 250
Approximate Scale in Feet

1,2-Dichloroethane in Alluvial Aquifer Groundwater
September 2008
Cedar Chemical
Helena-West Helena, Arkansas

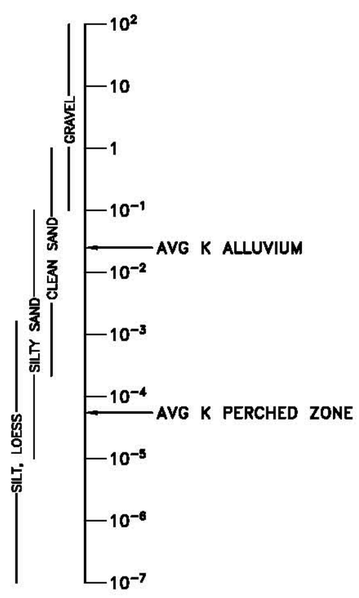
By: MLS	Date: 1/18/09	Project No. 13636.000
AMEC Geomatrix		Figure 33

Plot Date: 02/21/09 - 1:04pm, Plotted by: mike schofield
Drawing Path: I:\13636 - Arkansas Helena-West Helena\FIGURES\, Drawing Name: Alluvial_Maps_ver2.dwg

21/09 Alluvial_Maps_ver2.dwg

BASEMAP MODIFIED FROM:
Smith & Weiland/Cline-Fraizer Survey, August 2008

RANGE OF VALUES OF HYDRAULIC CONDUCTIVITY K (cm/s)



EXPLANATION

- Perched Well Location
- Upper Alluvial Well Location
- Middle Alluvial Well Location
- Lower Alluvial Well Location
- CMT Well with multiple completions (depths noted above)
- STEP-TEST RESULTS (ALLUVIAL AQUIFER)
- SLVG-TEST RESULTS (PERCHED ZONE)

0 80
APPROXIMATE SCALE IN FEET

AQUIFER TESTING RESULTS

Cedar Chemical
Helena-West Helena, Arkansas

By: MLS	Date: 1/5/09	Project No. 13636
AMEC Geomatrix		Figure 34

APPENDIX A

Non-Conformance Reports

Nonconformance Report
Cedar Chemical Company
Helena-West Helena, Arkansas

Nonconformance Report No: 1

Nonconformance:

While drilling the borehole for monitoring well OFF-MW-5, an undetermined amount of hydraulic fluid was released from the drilling rig due to a faulty gasket. The gasket was located on hydraulically-operated clamps that hold the drill pipe in place while adding or removing joints of pipe. As such, the release occurred directly over the borehole.

The total depth of the borehole at the time of the release was 146 feet below ground surface (ft-bgs); however, depth to water was measured at approximately 18 ft-bgs.

The release was noticed on the morning of June 24, 2008. Apparently, the release occurred overnight. Given the fact that the annulus of the drill pipe was properly covered prior to leaving the site on June 23, 2008, no hydraulic fluid entered into the borehole via the annulus. This was confirmed utilizing an oil/water interface probe (groundwater was detected at approximately 18 ft-bgs). Additionally, a section of a hydrocarbon-absorbing material, secured to a gauge line, was lowered into the borehole until groundwater was encountered (approximately 18 ft-bgs). The hydrocarbon-absorbing pad was inspected for the presence of hydraulic oil and none was observed.

Although no hydraulic oil entered the borehole via the annulus, it was determined that some volume of hydraulic oil likely entered the borehole via the space between the exterior portion of the drill pipe and earth. Prior to leaving the site on the evening of June 23, 2008 a tub that is utilized to catch return-water/cuttings was approximately ½ full with return-water. However, on the morning of June 24, 2008, no water was present within the tub (which is common). Generally, the water within the tub will drain back into the formation overnight via the space between the exterior portion of the drill pipe and earth (a bentonite seal between the tub and the ground surface prevents the return-water from draining onto the ground surface).

Apparently, the hydraulic-oil release occurred while water was still present within the tub and the hydraulic oil smeared the side of the tub as the water drained back into the formation. As a result, a “smear zone” was visible on the interior portion of the tub on the morning of June 24, 2008. Based on this visual evidence, it was determined that an unknown volume of hydraulic oil likely entered the borehole via the space between the exterior portion of the drill pipe and earth.

Action:

Once the release was discovered, the borehole and tub were immediately covered with a tarp to prevent additional hydraulic fluid from entering the borehole. Once the borehole was covered, the hydraulic leak was repaired, the tub and any potentially-impacted equipment were properly decontaminated, and the borehole was properly plugged and abandoned.

Nonconformance Report
Cedar Chemical Company
Helena-West Helena, Arkansas

One soil sample was collected approximately one foot south of the borehole and analyzed for XXX. The analytical testing results indicated that no concentrations of chemicals of concern (COCs) were detected in the soil sample.

A second borehole was advanced approximately 30 feet west of the original borehole and ultimately converted into a groundwater monitoring well (also named OFF-MW-5).

Project Impact:
Based on the results of the soil data collected approximately one foot south of the original borehole location and the results of the recent groundwater data (collected from OFF-MW-5), it does not appear that the soil and/or groundwater in this area was adversely affected by the hydraulic-oil release.

Nonconformance Report
Cedar Chemical Company
Helena-West Helena, Arkansas

Nonconformance Report No: 2 **Page 1 of 1**

Nonconformance/Action:

Due to access issues with the BPS property, monitoring well OFF-MW-10 was installed 600 feet west of its proposed location to a location near the corner of Industrial Park Road and Industrial Park County Road 324.

Project Impact:
Given the fact that this new location is not located on private property, AMEC personnel will be able to access the well at any time. Based on the groundwater analytical results for this well, this nonconformance did not affect the project's objectives.

Nonconformance Report
Cedar Chemical Company
Helena-West Helena, Arkansas

Nonconformance Report No: 3

Nonconformance:

The original proposal stated that the temporary wells (which were installed in the perched zone aquifer) would initially be sampled for a variety of chemicals of concern (COCs). However, due to extremely slow recharge rates associated with the perched zone aquifer, not all of the temporary wells were able to produce the volume of groundwater needed to fill all of the required sample containers within the time frame allowed in the approved budget. As a result, not all of the temporary wells were sampled during this event.

In March 2008, only temporary wells TW-1, TW-2, TW-6, and TW-9 produced enough groundwater to analyze for metals, organochlorine pesticides, herbicides, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and dissolved gases.

Action:

In April 2008, AMEC personnel returned to the site in an effort to collect additional groundwater samples from the temporary wells. Based on the March 2008 groundwater analytical results and the slow recharge rates associated with the perched zone aquifer, groundwater samples were collected from temporary wells TW-1, TW-2, TW-3, TW-4, TW-5, TW-7, TW-8, TW-9, and TW-10 and analyzed in the testing laboratory for VOCs only.

Project Impact:

This nonconformance did not have a significant impact on the project. Sufficient data was collected during these two groundwater sampling events which enabled AMEC to achieve the intended objectives.

APPENDIX B

Boring Logs, Temporary Well Logs

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas				**Log of Boring No. BK-01**	
BORING LOCATION: See Site Map				ELEVATION AND DATUM: NM	
DRILLING CONTRACTOR: Boart Longyear				DATE STARTED: 4/1/08	DATE FINISHED: 4/1/08
DRILLING METHOD: Direct Push				TOTAL DEPTH (ft.): 16.0	MEASURING POINT: NM
DRILLING EQUIPMENT: 6620DT				DEPTH TO WATER: FIRST 15	COMPL. NA / 24 HRS. NA
SAMPLING METHOD: Solid Barrel Continuous Sampler				LOGGED BY: Adam Taylor, PG	
HAMMER WEIGHT: NA	DROP: NA			RESPONSIBLE PROFESSIONAL: Kelly Beck, PG	REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/Foot	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM	PID READING (ppm)	REMARKS
				Grass cover.	NA	
1				Brownish orange silty clay (CL): soft, moist, medium plasticity.		
2						
3	0-6'					
4						
5						
6				Clay percentage increases with depth.	NA	
7						
8						
9						
10					NA	
11						
12						
13	10-16'					
14						
15				Wet from 15 to 16 feet.		
16				Borehole terminated at 16 feet below ground surface.		
17						
18						
19						
20						
21						
22						
23						
24						
25						

RMRK3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas				**Log of Boring No. BK-02**	
BORING LOCATION: See Site Map				ELEVATION AND DATUM: NM	
DRILLING CONTRACTOR: Boart Longyear				DATE STARTED: 4/1/08	DATE FINISHED: 4/1/08
DRILLING METHOD: Direct Push				TOTAL DEPTH (ft.): 16.0	MEASURING POINT: NM
DRILLING EQUIPMENT: 6620DT				DEPTH TO WATER: FIRST NA	COMPL. NA / 24 HRS. NA
SAMPLING METHOD: Solid Barrel Continuous Sampler				LOGGED BY: Adam Taylor, PG	
HAMMER WEIGHT: NA	DROP: NA			RESPONSIBLE PROFESSIONAL: Kelly Beck, PG	REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/Foot	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM	PID READING (ppm)	REMARKS
				Grass cover.	NA	
1				Brownish orange silty clay (CL): soft, moist, medium plasticity.		
2						
3	0-6'					
4						
5						
6				Clay percentage increases with depth.	NA	
7						
8						
9						
10					NA	
11						
12						
13	10-16'					
14						
15						
16				Borehole terminated at 16 feet below ground surface.		
17						
18						
19						
20						
21						
22						
23						
24						
25						

RMRK3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas	**Log of Boring No. BK-03**			
BORING LOCATION: See Site Map	ELEVATION AND DATUM: NM			
DRILLING CONTRACTOR: Boart Longyear	DATE STARTED: 4/1/08	DATE FINISHED: 4/1/08		
DRILLING METHOD: Direct Push	TOTAL DEPTH (ft.): 16.0	MEASURING POINT: NM		
DRILLING EQUIPMENT: 6620DT	DEPTH TO WATER	FIRST NA	COMPL. NA	24 HRS. NA
SAMPLING METHOD: Solid Barrel Continuous Sampler	LOGGED BY: Adam Taylor, PG			
HAMMER WEIGHT: NA DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG	REG. NO. 2523		

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM	PID READING (ppm)	REMARKS
				Grass cover.	NA	
1				Brownish orange silty clay (CL): soft, moist, medium plasticity.		
2						
3	0-6'					
4						
5						
6				Clay percentage increases with depth.	NA	
7						
8						
9						
10					NA	
11						
12						
13	10-16'					
14						
15						
16				Borehole terminated at 16 feet below ground surface.		
17						
18						
19						
20						
21						
22						
23						
24						
25						

RMRK3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas				**Log of Boring No. BK-04**	
BORING LOCATION: See Site Map				ELEVATION AND DATUM: NM	
DRILLING CONTRACTOR: Boart Longyear				DATE STARTED: 4/1/08	DATE FINISHED: 4/1/08
DRILLING METHOD: Direct Push				TOTAL DEPTH (ft.): 15.0	MEASURING POINT: NM
DRILLING EQUIPMENT: 6620DT				DEPTH TO WATER: FIRST 11	COMPL. NA / 24 HRS. NA
SAMPLING METHOD: Solid Barrel Continuous Sampler				LOGGED BY: Adam Taylor, PG	
HAMMER WEIGHT: NA	DROP: NA			RESPONSIBLE PROFESSIONAL: Kelly Beck, PG	REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/Foot	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM	PID READING (ppm)	REMARKS
				Grass cover.	NA	
1				Brownish orange silty clay (CL): soft, moist, medium plasticity.		
2	0-5'					
3						
4						
5					NA	
6				Clay percentage increases with depth.		
7						
8						
9						
10					NA	
11				Wet from 11 to 15 feet.		
12	10-15'					
13						
14						
15				Borehole terminated at 15 feet below ground surface.		
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						

RMRK3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas	**Log of Boring No. BK-05**
BORING LOCATION: See Site Map	ELEVATION AND DATUM: NM
DRILLING CONTRACTOR: Boart Longyear	DATE STARTED: 4/2/08 / DATE FINISHED: 4/2/08
DRILLING METHOD: Direct Push	TOTAL DEPTH (ft.): 15.0 / MEASURING POINT: NM
DRILLING EQUIPMENT: 6620DT	DEPTH TO WATER: FIRST NA / COMPL. NA / 24 HRS. NA
SAMPLING METHOD: Solid Barrel Continuous Sampler	LOGGED BY: Adam Taylor, PG
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG / REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	Sample	Blows/ Foot	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM	PID READING (ppm)	REMARKS
				Grass cover.	NA	
1				Light brown silty clay (CL): soft, moist, medium plasticity. Softer with depth.		
2	0-5'					
3						
4						
5					NA	
6				Stiffer with depth.		
7						
8						
9						
10					NA	
11						
12	10-15'					
13						
14						
15				Borehole terminated at 15 feet below ground surface.		
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						

RMRK3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas	**Log of Boring No. BK-06**
BORING LOCATION: See Site Map	ELEVATION AND DATUM: NM
DRILLING CONTRACTOR: Boart Longyear	DATE STARTED: 4/2/08 / DATE FINISHED: 4/2/08
DRILLING METHOD: Direct Push	TOTAL DEPTH (ft.): 15.0 / MEASURING POINT: NM
DRILLING EQUIPMENT: 6620DT	DEPTH TO WATER: FIRST NA / COMPL. NA / 24 HRS. NA
SAMPLING METHOD: Solid Barrel Continuous Sampler	LOGGED BY: Adam Taylor, PG
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG / REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/Foot	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM	PID READING (ppm)	REMARKS
				Grass cover.	NA	
1				Light brown silty clay (CL): soft, moist, medium plasticity. Softer with depth.		
2	0-5'					
3						
4						
5					NA	
6				Stiffer with depth.		
7						
8						
9						
10					NA	
11						
12	10-15'					
13						
14						
15				Borehole terminated at 15 feet below ground surface.		
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						

RMRK3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas	**Log of Boring No. BK-07**
BORING LOCATION: See Site Map	ELEVATION AND DATUM: NM
DRILLING CONTRACTOR: Boart Longyear	DATE STARTED: 4/2/08 / DATE FINISHED: 4/2/08
DRILLING METHOD: Direct Push	TOTAL DEPTH (ft.): 15.0 / MEASURING POINT: NM
DRILLING EQUIPMENT: 6620DT	DEPTH TO WATER: FIRST NA / COMPL. NA / 24 HRS. NA
SAMPLING METHOD: Solid Barrel Continuous Sampler	LOGGED BY: Adam Taylor, PG
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG / REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	Sample	Blows/ Foot	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM	PID READING (ppm)	REMARKS
				Grass cover.	NA	
1				Light brown silty clay (CL): soft, moist, medium plasticity. Softer with depth.		
2	0-5'					
3						
4						
5					NA	
6				Stiffer with depth.		
7						
8						
9						
10					NA	
11						
12	10-15'					
13						
14						
15				Borehole terminated at 15 feet below ground surface.		
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						

RMRK3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas				**Log of Boring No. BK-08**	
BORING LOCATION: See Site Map				ELEVATION AND DATUM: NM	
DRILLING CONTRACTOR: Boart Longyear				DATE STARTED: 4/1/08	DATE FINISHED: 4/1/08
DRILLING METHOD: Direct Push				TOTAL DEPTH (ft.): 15.0	MEASURING POINT: NM
DRILLING EQUIPMENT: 6620DT				DEPTH TO WATER: FIRST 10	COMPL. NA / 24 HRS. NA
SAMPLING METHOD: Solid Barrel Continuous Sampler				LOGGED BY: Adam Taylor, PG	
HAMMER WEIGHT: NA	DROP: NA			RESPONSIBLE PROFESSIONAL: Kelly Beck, PG	REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/Foot	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM	PID READING (ppm)	REMARKS
				Grass cover.	NA	
1				Light brown silty clay (CL): soft, moist, medium plasticity.		
2	0-5'					
3						
4						
5					NA	
6				Clay percentage increases with depth.		
7						
8						
9						
10				Silt percentage increases with depth. Wet from 10 to 12 feet.	NA	
11						
12	10-15'					
13						
14						
15				Borehole terminated at 15 feet below ground surface.		
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						

RMRK3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas				**Log of Boring No. BK-09**	
BORING LOCATION: See Site Map				ELEVATION AND DATUM: NM	
DRILLING CONTRACTOR: Boart Longyear				DATE STARTED: 4/1/08	DATE FINISHED: 4/1/08
DRILLING METHOD: Direct Push				TOTAL DEPTH (ft.): 15.0	MEASURING POINT: NM
DRILLING EQUIPMENT: 6620DT				DEPTH TO WATER: FIRST 13	COMPL. NA / 24 HRS. NA
SAMPLING METHOD: Solid Barrel Continuous Sampler				LOGGED BY: Adam Taylor, PG	
HAMMER WEIGHT: NA	DROP: NA			RESPONSIBLE PROFESSIONAL: Kelly Beck, PG	REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/Foot	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM	PID READING (ppm)	REMARKS
				Grass cover.	NA	
1				Light brown silty clay (CL): soft, moist, medium plasticity.		
2	0-5'					
3						
4						
5					NA	
6				Clay percentage increases with depth.		
7						
8						
9						
10				Silt percentage increases with depth.	NA	
11						
12	10-15'					
13				Wet from 13 to 14 feet.		
14						
15				Borehole terminated at 15 feet below ground surface.		
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						

RMRK3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas				**Log of Boring No. BK-10**	
BORING LOCATION: See Site Map				ELEVATION AND DATUM: NM	
DRILLING CONTRACTOR: Boart Longyear				DATE STARTED: 4/1/08	DATE FINISHED: 4/1/08
DRILLING METHOD: Direct Push				TOTAL DEPTH (ft.): 15.0	MEASURING POINT: NM
DRILLING EQUIPMENT: 6620DT				DEPTH TO WATER: FIRST NA; COMPL. NA; 24 HRS. NA	
SAMPLING METHOD: Solid Barrel Continuous Sampler				LOGGED BY: Adam Taylor, PG	
HAMMER WEIGHT: NA	DROP: NA			RESPONSIBLE PROFESSIONAL: Kelly Beck, PG	REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/Foot	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM	PID READING (ppm)	REMARKS
				Grass cover.	NA	
1				Brownish orange silty clay (CL) with some gray mottles: stiff, dry, medium plasticity.		
2	0-5'					
3						
4						
5					NA	
6				Turns all gray and soft at 6 feet.		
7						
8						
9				Brick fragments at 9 feet.		
10					NA	
11						
12	10-15'					
13				Turns light brown, soft, and moist at 12.5 feet.		
14						
15				Borehole terminated at 15 feet below ground surface.		
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						

RMRK3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas				**Log of Boring No. DPT-00**
BORING LOCATION: See Site Map				ELEVATION AND DATUM: NM
DRILLING CONTRACTOR: Boart Longyear				DATE STARTED: 3/27/08 / DATE FINISHED: 3/27/08
DRILLING METHOD: Direct Push				TOTAL DEPTH (ft.): 24.0 / MEASURING POINT: NM
DRILLING EQUIPMENT: 6620DT				DEPTH TO WATER: FIRST 17 / COMPL. NA / 24 HRS. NA
SAMPLING METHOD: Solid Barrel Continuous Sampler				LOGGED BY: Adam Taylor, PG
HAMMER WEIGHT: NA	DROP: NA			RESPONSIBLE PROFESSIONAL: Kelly Beck, PG / REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM	PID READING (ppm)	REMARKS
				Asphalt/concrete cover.	39.2	
1				Greenish gray silty clay (CL) with some black specs: stiff, dry, medium plasticity. Slight odor.		
2	0-4'					
3						
4					25.7	
5						
6						
7				Turns orangish brown. Strong odor in remainder of soil column.		
8					29.6	
9						
10				Silt percentage increases with depth.		
11						
12					47.5	
13						
14	12-16'					
15						
16				Moist, grades to gray.	16.2	
17				Wet at from 17 to 19.		
18						
19				Moist. Some iron staining.		
20					15.7	
21						
22						
23						
24				Borehole terminated at 24 feet below ground surface.		
25						

RMRK3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas				**Log of Boring No. DPT-01**	
BORING LOCATION: See Site Map				ELEVATION AND DATUM: NM	
DRILLING CONTRACTOR: Boart Longyear				DATE STARTED: 3/26/08	DATE FINISHED: 3/26/08
DRILLING METHOD: Direct Push				TOTAL DEPTH (ft.): 16.0	MEASURING POINT: NM
DRILLING EQUIPMENT: 6620DT				DEPTH TO WATER: FIRST 15	COMPL. NA / 24 HRS. NA
SAMPLING METHOD: Solid Barrel Continuous Sampler				LOGGED BY: Adam Taylor, PG	
HAMMER WEIGHT: NA	DROP: NA			RESPONSIBLE PROFESSIONAL: Kelly Beck, PG	REG. NO. 2523

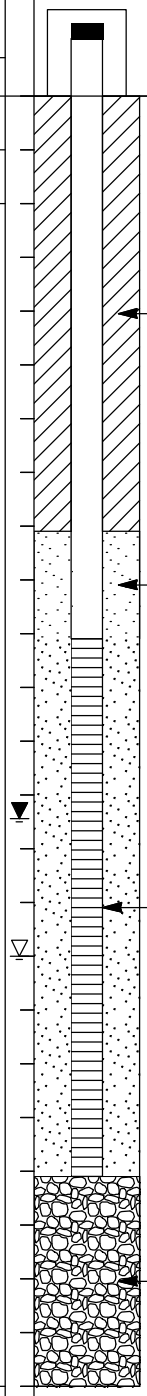
DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/Foot	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM	PID READING (ppm)	REMARKS
				Asphalt/concrete cover.	85	
1						
2	0-4'			Black and brown fill material comprised of some dry sand, clay, and chert. Unidentified odor present within entire soil column.	89	
3				Dark gray silty clay (CL): very stiff, dry, medium plasticity.		
4					48	
5				Some gravel and sand (possibly fill material). Turns brown, soft, and moist.		
6				Turns yellowish brown.	98	
7						
8					79	
9				Turns dark brown, wet, some gravel and little sand (possibly fill material).		
10				Yellowish gray with some black mottle.	155	
11						
12				Silt percentage increases with depth. Some very fine grained sand at 14.5 feet. Wet from 15 to 16 feet.	197	
13						
14	12-16'				238	
15						
16				Borehole terminated at 16 feet below ground surface.		
17						
18						
19						
20						
21						
22						
23						
24						
25						

RMRK3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas		**Log of Well No. DPT-02/TW-1**	
BORING LOCATION: See Site Map		GROUND SURFACE ELEVATION AND DATUM: NM	
DRILLING CONTRACTOR: Boart Longyear		DATE STARTED: 3/26/08	DATE FINISHED: 3/26/08
DRILLING METHOD: Direct Push		TOTAL DEPTH (ft.): 24.0	SCREEN INTERVAL (ft.): 10 feet
DRILLING EQUIPMENT: 6620DT		DEPTH TO WATER ATD: 16	CASING: 13.20
SAMPLING METHOD: Solid Barrel Continuous Sampler		LOGGED BY: Adam Taylor, PG	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG	REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM
				638	Asphalt/concrete cover.
	0-4'			535	Black and brown fill material comprised of some dry sand, clay, and chert. Unidentified odor present within entire soil column.
				271	Yellowish brown silty clay (CL) with some black mottle: soft, moist, medium plasticity. Silt percentage increases with depth.
5				298	
				703	Turns greenish gray.
				262	Wet from 9 to 10 feet. More silt than above.
10				OR	
	12-16'			OR	Turns brownish yellow, very soft, and moist.
15				OR	Wet from 16 to 18 feet. Some gravel, sand, and silt present.
				OR	More clay than above. Turns gray with some orange mottle.
20				537	
				472	
					Borehole terminated at 24 feet below ground surface.
25					

WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS



WELL3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas	**Log of Boring No. DPT-03**			
BORING LOCATION: See Site Map	ELEVATION AND DATUM: NM			
DRILLING CONTRACTOR: Boart Longyear	DATE STARTED: 3/26/08	DATE FINISHED: 3/26/08		
DRILLING METHOD: Direct Push	TOTAL DEPTH (ft.): 24.0	MEASURING POINT: NM		
DRILLING EQUIPMENT: 6620DT	DEPTH TO WATER	FIRST 17	COMPL. NA	24 HRS. NA
SAMPLING METHOD: Solid Barrel Continuous Sampler	LOGGED BY: Adam Taylor, PG			
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG			REG. NO. 2523

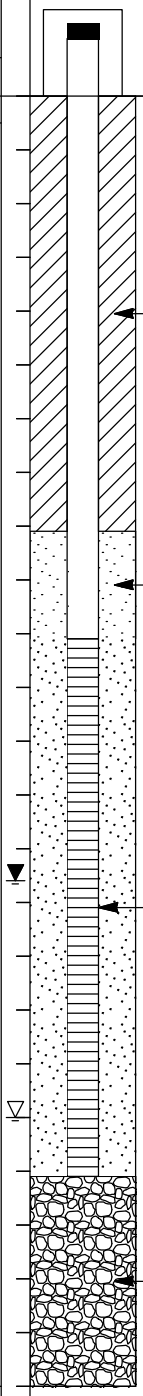
DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/Foot	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM	PID READING (ppm)	REMARKS
				Asphalt/concrete cover.	116	
1				Dark gray silt clay (CL): firm, dry. Unknown odor.		
2	0-4'					
3						
4					46	
5						
6				Turns orangish brown. Silt percentage increases with depth.		
7						
8					54	
9						
10						
11						
12					51	
13						
14						
15						
16				Turns gray. Moist.	103	
17				Wet from 17 to 19. Black substance (product?) at 17 feet.		
18	16-20'					
19				Orangish brown with gray mottle.		
20					113	
21						
22						
23						
24				Borehole terminated at 24 feet below ground surface.		
25						

RMRK3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas	**Log of Well No. DPT-04/TW-2**
BORING LOCATION: See Site Map	GROUND SURFACE ELEVATION AND DATUM: NM
DRILLING CONTRACTOR: Boart Longyear	DATE STARTED: 3/26/08 / DATE FINISHED: 3/26/08
DRILLING METHOD: Direct Push	TOTAL DEPTH (ft.): 24.0 / SCREEN INTERVAL (ft.): 10 feet
DRILLING EQUIPMENT: 6620DT	DEPTH TO WATER ATD: 19 / CASING: 13.25
SAMPLING METHOD: Solid Barrel Continuous Sampler	LOGGED BY: Adam Taylor, PG
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG / REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	Sample	Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM
	0-4'			161	Grass Cover. White gravel cover with some clay.
					Brownish orage silty clay (CL): dry, stiff, medium plasticity. Three-inch layer of black clay and sand. Possibly fill material.
				6.0	Silt percentage increases with depth.
5					
				1.3	
10					Turns moist and soft from 10 to 11 feet.
				1.4	
15					
				0.7	Very soft.
					Turns greenish gray.
					Wet from 19 to 22 with some black mottling. Smells like decaying wood.
20				0.7	
					Turns gray with orange mottle.
					Borehole terminated at 24 feet below ground surface.
25					

WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS



WELL3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas				**Log of Boring No. DPT-05**	
BORING LOCATION: See Site Map				ELEVATION AND DATUM: NM	
DRILLING CONTRACTOR: Boart Longyear				DATE STARTED: 3/26/08	DATE FINISHED: 3/26/08
DRILLING METHOD: Direct Push				TOTAL DEPTH (ft.): 24.0	MEASURING POINT: NM
DRILLING EQUIPMENT: 6620DT				DEPTH TO WATER: FIRST 17	COMPL. NA / 24 HRS. NA
SAMPLING METHOD: Solid Barrel Continuous Sampler				LOGGED BY: Adam Taylor, PG	
HAMMER WEIGHT: NA	DROP: NA			RESPONSIBLE PROFESSIONAL: Kelly Beck, PG	REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM	PID READING (ppm)	REMARKS
				Asphalt/concrete cover.	2.1	
1				Brownish orange silty clay (CL): stiff, dry, medium plastiicity.		
2	0-4'					
3						
4					0.9	
5						
6						
7				Sharp contact. Turns gray. More silt than above.		
8					0.0	
9						
10				Some black (organic) mottle.		
11				Turns greenish gray.		
12					0.0	
13						
14						
15						
16				Turns orangish brown.	0.0	
17				Wet from 17 to 22 feet.		
18						
19						
20					0.0	
21						
22				Turns gray.		
23						
24				Borehole terminated at 24 feet below ground surface.		
25						

RMRK3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas				**Log of Boring No. DPT-06**	
BORING LOCATION: See Site Map				ELEVATION AND DATUM: NM	
DRILLING CONTRACTOR: Boart Longyear				DATE STARTED: 3/26/08	DATE FINISHED: 3/26/08
DRILLING METHOD: Direct Push				TOTAL DEPTH (ft.): 24.0	MEASURING POINT: NM
DRILLING EQUIPMENT: 6620DT				DEPTH TO WATER: FIRST 16.5	COMPL. NA / 24 HRS. NA
SAMPLING METHOD: Solid Barrel Continuous Sampler				LOGGED BY: Adam Taylor, PG	
HAMMER WEIGHT: NA	DROP: NA			RESPONSIBLE PROFESSIONAL: Kelly Beck, PG	REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/Foot	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM	PID READING (ppm)	REMARKS
				Asphalt/concrete cover.	1.2	
1				Brownish orange silty clay (CL): stiff, dry, medium plasticity.		
2	0-4'					
3						
4				Grades to light gray. Some orange mottle.	1.1	
5						
6						
7						
8					0.9	
9						
10						
11						
12					0.9	
13						
14						
15						
16					0.5	
17				Sharp contact. Turns light brown with some black flecks, soft, wet from 16.5 to 19 feet.		
18						
19						
20					0.5	
21						
22						
23						
24				Borehole terminated at 24 feet below ground surface.		
25						

RMRK3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas	**Log of Boring No. DPT-07**			
BORING LOCATION: See Site Map	ELEVATION AND DATUM: NM			
DRILLING CONTRACTOR: Boart Longyear	DATE STARTED: 3/27/08	DATE FINISHED: 3/27/08		
DRILLING METHOD: Direct Push	TOTAL DEPTH (ft.): 24.0	MEASURING POINT: NM		
DRILLING EQUIPMENT: 6620DT	DEPTH TO WATER	FIRST 17.5	COMPL. NA	24 HRS. NA
SAMPLING METHOD: Solid Barrel Continuous Sampler	LOGGED BY: Adam Taylor, PG			
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG			REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM	PID READING (ppm)	REMARKS
				Asphalt/concrete cover.	0.3	
1				Brownish orange silty clay (CL): stiff, dry, medium plasticity.		
2	0-4'					
3						
4				Clay percentage increases with depth.	0.2	
5						
6						
7						
8					0.3	
9						
10						
11						
12					0.4	
13						
14	12-16'					
15						
16					0.2	
17				Very silty clay. Wet from 17.5-22 feet.		
18						
19						
20					0.0	
21						
22				Turns grayish brown with some orange mottle.		
23						
24				Borehole terminated at 24 feet below ground surface.		
25						

RMRK3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas				**Log of Boring No. DPT-08**	
BORING LOCATION: See Site Map				ELEVATION AND DATUM: NM	
DRILLING CONTRACTOR: Boart Longyear				DATE STARTED: 3/27/08	DATE FINISHED: 3/27/08
DRILLING METHOD: Direct Push				TOTAL DEPTH (ft.): 24.0	MEASURING POINT: NM
DRILLING EQUIPMENT: 6620DT				DEPTH TO WATER: FIRST 18.5	COMPL. NA / 24 HRS. NA
SAMPLING METHOD: Solid Barrel Continuous Sampler				LOGGED BY: Adam Taylor, PG	
HAMMER WEIGHT: NA	DROP: NA			RESPONSIBLE PROFESSIONAL: Kelly Beck, PG	REG. NO. 2523

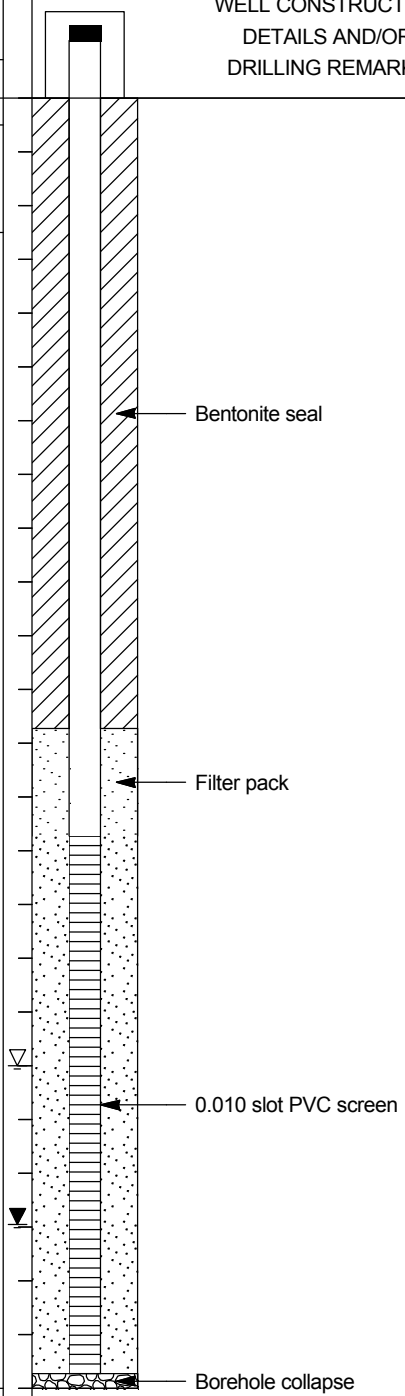
DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/Foot	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM	PID READING (ppm)	REMARKS
				Asphalt/concrete cover.	3.0	
1				Brownish orange silty clay (CL): stiff, dry, medium plasticity.		
2	0-4'					
3						
4					1.7	
5						
6						
7						
8					2.2	
9						
10						
11						
12				Grades to light brown with some orange mottle. Silt percentage increases with depth.	2.3	
13						
14						
15						
16					2.2	
17						
18						
19				Very silty clay. Wet from 18.5-22 feet.		
20					0.7	
21						
22				Turns grayish brown with some orange mottle. Few iron nodules.		
23						
24				Borehole terminated at 24 feet below ground surface.		
25						

RMRK3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas	**Log of Well No. DPT-09/TW-3**
BORING LOCATION: See Site Map	GROUND SURFACE ELEVATION AND DATUM: NM
DRILLING CONTRACTOR: Boart Longyear	DATE STARTED: 3/27/08 / DATE FINISHED: 3/27/08
DRILLING METHOD: Direct Push	TOTAL DEPTH (ft.): 24.0 / SCREEN INTERVAL (ft.): 10 feet
DRILLING EQUIPMENT: 6620DT	DEPTH TO WATER ATD: 18 / CASING: 16.74
SAMPLING METHOD: Solid Barrel Continuous Sampler	LOGGED BY: Adam Taylor, PG
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG / REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	Sample	Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. — Surface Elevation: NM
				6.6	Asphalt/concrete cover.
	0-4'				Black fill material comprised of some dry sand, clay, and chert.
					Orangish brown silty clay (CL): stiff, dry, medium plasticity.
				2.0	
5					
				4.1	Grades to brownish orange, more clay than above.
10					
				4.7	
	12-16'				Silt percentage increases with depth. Softer with depth. Slight unknown odor from 14 feet and lower in remainder of soil column.
15					
				4.7	
					Wet from 18 to 22 feet.
20				8.1	
					Turns brownish gray. Few iron nodules.
					Borehole terminated at 24 feet below ground surface.
25					

WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS



WELL3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas				**Log of Boring No. DPT-10**	
BORING LOCATION: See Site Map				ELEVATION AND DATUM: NM	
DRILLING CONTRACTOR: Boart Longyear				DATE STARTED: 3/27/08	DATE FINISHED: 3/27/08
DRILLING METHOD: Direct Push				TOTAL DEPTH (ft.): 24.0	MEASURING POINT: NM
DRILLING EQUIPMENT: 6620DT				DEPTH TO WATER: FIRST 17	COMPL. NA / 24 HRS. NA
SAMPLING METHOD: Solid Barrel Continuous Sampler				LOGGED BY: Adam Taylor, PG	
HAMMER WEIGHT: NA	DROP: NA			RESPONSIBLE PROFESSIONAL: Kelly Beck, PG	REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/Foot	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM	PID READING (ppm)	REMARKS
				Asphalt/concrete cover.	59.7	
1				Black fill material comprised of brick fragments, chert, some sand and clay.		
2	0-4'			Brownish orange silty clay (CL): stiff, dry, medium plasticity. Slight unknown odor.		
3						
4					29.2	
5						
6						
7						
8					7.2	
9						
10						
11						
12				Silt percentage increases with depth. Some iron nodules.	35.0	
13						
14	12-16'					
15						
16					15.5	
17				Very silty clay. Wet from 17-19 feet.		
18						
19				Turns gray with some iron staining.		
20					5.9	
21						
22						
23						
24				Borehole terminated at 24 feet below ground surface.		
25						

RMRK3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas				**Log of Boring No. DPT-11**	
BORING LOCATION: See Site Map				ELEVATION AND DATUM: NM	
DRILLING CONTRACTOR: Boart Longyear				DATE STARTED: 3/27/08	DATE FINISHED: 3/27/08
DRILLING METHOD: Direct Push				TOTAL DEPTH (ft.): 24.0	MEASURING POINT: NM
DRILLING EQUIPMENT: 6620DT				DEPTH TO WATER: FIRST 17	COMPL. NA / 24 HRS. NA
SAMPLING METHOD: Solid Barrel Continuous Sampler				LOGGED BY: Adam Taylor, PG	
HAMMER WEIGHT: NA	DROP: NA			RESPONSIBLE PROFESSIONAL: Kelly Beck, PG	REG. NO. 2523

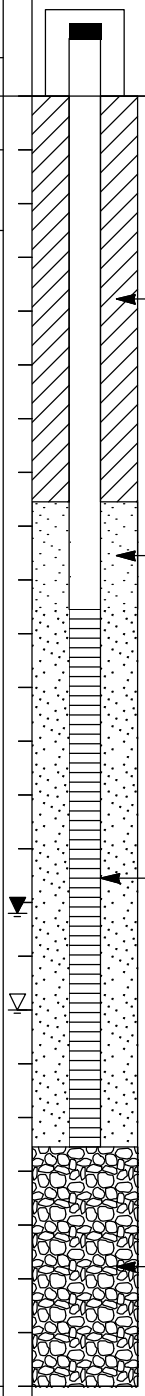
DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM	PID READING (ppm)	REMARKS
0	0-4'	X		Asphalt/concrete cover.	87.8	
1				Black fill material comprised of brick fragments, chert, some sand and clay.		
2						
3				Brownish orange silty clay (CL): stiff, dry, medium plasticity. Unknown odor.		
4					30.2	
5						
6				Sharp contact. Greenish gray with some black nodules.		
7						
8					31.5	
9						
10						
11						
12	12-16'	X		Grades to bluish gray. Silt percentage increases with depth.	71.6	
13						
14						
15						
16					155.0	
17				Wet from 17 to 23 feet.		
18						
19						
20					196.0	
21						
22						
23						
24				Borehole terminated at 24 feet below ground surface.		
25						

RMRK3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas	**Log of Well No. DPT-12/TW-4**
BORING LOCATION: See Site Map	GROUND SURFACE ELEVATION AND DATUM: NM
DRILLING CONTRACTOR: Boart Longyear	DATE STARTED: 3/27/08 / DATE FINISHED: 3/27/08
DRILLING METHOD: Direct Push	TOTAL DEPTH (ft.): 24.0 / SCREEN INTERVAL (ft.): 10 feet
DRILLING EQUIPMENT: 6620DT	DEPTH TO WATER ATD: 17 / CASING: 12.70
SAMPLING METHOD: Solid Barrel Continuous Sampler	LOGGED BY: Adam Taylor, PG
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG / REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM
	0-4'			OR	Asphalt/concrete cover.
					Black and brown fill material comprised of some dry sand, clay, and chert. Unidentified odor present within entire soil column.
				OR	Brownish orange silty clay (CL): firm, dry, medium plasticity. A yellow powder is visible on sample exterior. No visible yellow powder.
5					
				OR	Silt percentage increases with depth. Softer .
10					
				OR	
	12-16'				
15					
				OR	
					Light gray with some iron staining. Wet from 17 to 20 feet.
20				OR	
					Less iron staining.
					Borehole terminated at 24 feet below ground surface.
25					

WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS



WELL3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas				**Log of Boring No. DPT-13**
BORING LOCATION: See Site Map				ELEVATION AND DATUM: NM
DRILLING CONTRACTOR: Boart Longyear				DATE STARTED: 3/28/08 / DATE FINISHED: 3/28/08
DRILLING METHOD: Direct Push				TOTAL DEPTH (ft.): 10.0 / MEASURING POINT: NM
DRILLING EQUIPMENT: 6620DT				DEPTH TO WATER: FIRST NA / COMPL. NA / 24 HRS. NA
SAMPLING METHOD: Solid Barrel Continuous Sampler				LOGGED BY: Adam Taylor, PG
HAMMER WEIGHT: NA	DROP: NA			RESPONSIBLE PROFESSIONAL: Kelly Beck, PG / REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/Foot	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM	PID READING (ppm)	REMARKS
				Gravel cover. Fill material comprised of gravel, silt, clay and chert.	1.8	
1				Brownish orange silty clay (CL): dry, stiff, medium plasticity. Appears to be native. Yellow powder visible on exterior of sample core.		
2	2-4'	X			35.7	
3						
4				More clay than above.	7.6	
5						
6					8.8	
7						
8					8.6	
9						
10				Borehole terminated at 10 feet below ground surface.		
11						
12						
13						
14						
15						
16						
17						
18						
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20						
21						
22						
23						
24						
25						

RMRK3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas				**Log of Boring No. DPT-14**
BORING LOCATION: See Site Map				ELEVATION AND DATUM: NM
DRILLING CONTRACTOR: Boart Longyear				DATE STARTED: 3/28/08 / DATE FINISHED: 3/28/08
DRILLING METHOD: Direct Push				TOTAL DEPTH (ft.): 10.0 / MEASURING POINT: NM
DRILLING EQUIPMENT: 6620DT				DEPTH TO WATER: FIRST NA / COMPL. NA / 24 HRS. NA
SAMPLING METHOD: Solid Barrel Continuous Sampler				LOGGED BY: Adam Taylor, PG
HAMMER WEIGHT: NA	DROP: NA			RESPONSIBLE PROFESSIONAL: Kelly Beck, PG / REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/Foot	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM	PID READING (ppm)	REMARKS
				Gravel cover. Fill material comprised of gravel, silt, clay and chert.	0.3	
1						
2					7.4	
3	2-4'	X		Brownish orange silty clay (CL): dry, stiff, medium plasticity. Appears to be native. Yellow powder visible on exterior of sample core on the entire core run. More silt than above.		
4					4.2	
5						
6					8.8	
7						
8					20.3	
9	8-10'	X				
10				Borehole terminated at 10 feet below ground surface.		
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						

RMRK3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas				**Log of Boring No. DPT-15**	
BORING LOCATION: See Site Map				ELEVATION AND DATUM: NM	
DRILLING CONTRACTOR: Boart Longyear				DATE STARTED: 3/28/08	DATE FINISHED: 3/28/08
DRILLING METHOD: Direct Push				TOTAL DEPTH (ft.): 10.0	MEASURING POINT: NM
DRILLING EQUIPMENT: 6620DT				DEPTH TO WATER: FIRST NA; COMPL. NA; 24 HRS. NA	
SAMPLING METHOD: Solid Barrel Continuous Sampler				LOGGED BY: Adam Taylor, PG	
HAMMER WEIGHT: NA	DROP: NA			RESPONSIBLE PROFESSIONAL: Kelly Beck, PG	REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/Foot	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM	PID READING (ppm)	REMARKS
				Gravel cover. Fill material comprised of gravel, silt, clay and chert.	13.3	
1						
2				Grayish brown grading to brownish orange silty clay (CL): dry, stiff, medium plasticity. Appears to be native. Yellow powder visible on exterior of sample core on the entire core run.	90.4	
3	2-4'	X				
4		X		Soft from 4 to 4.5 feet.	107.2	
5	4-6'	X				
6		X			61.4	
7						
8				More clay than above.	27.0	
9						
10				Borehole terminated at 10 feet below ground surface.		
11						
12						
13						
14						
15						
16						
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23						
24						
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RMRK3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas				**Log of Boring No. DPT-16**	
BORING LOCATION: See Site Map				ELEVATION AND DATUM: NM	
DRILLING CONTRACTOR: Boart Longyear				DATE STARTED: 3/28/08	DATE FINISHED: 3/28/08
DRILLING METHOD: Direct Push				TOTAL DEPTH (ft.): 10.0	MEASURING POINT: NM
DRILLING EQUIPMENT: 6620DT				DEPTH TO WATER: FIRST NA / COMPL. NA	24 HRS. NA
SAMPLING METHOD: Solid Barrel Continuous Sampler				LOGGED BY: Adam Taylor, PG	
HAMMER WEIGHT: NA	DROP: NA			RESPONSIBLE PROFESSIONAL: Kelly Beck, PG	REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM	PID READING (ppm)	REMARKS
				Gravel cover. Fill material comprised of gravel, silt, clay and chert.	1.2	
1				Brownish orange silty clay (CL): dry, stiff, medium plasticity. Yellow powder visible on exterior of sample core on the entire core run.		
2					8.6	
3	2-4'	X				
4				Six inch layer of apparent fill material (same as 0 to 1 foot).	95.5	
5						
6				More clay than above.	119.3	
7	6-8'	X				
8					88.8	
9						
10				Borehole terminated at 10 feet below ground surface.		
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						

RMRK3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas				**Log of Boring No. DPT-18**	
BORING LOCATION: See Site Map				ELEVATION AND DATUM: NM	
DRILLING CONTRACTOR: Boart Longyear				DATE STARTED: 3/28/08	DATE FINISHED: 3/28/08
DRILLING METHOD: Direct Push				TOTAL DEPTH (ft.): 16.0	MEASURING POINT: NM
DRILLING EQUIPMENT: 6620DT				DEPTH TO WATER: FIRST NA; COMPL. NA; 24 HRS. NA	
SAMPLING METHOD: Solid Barrel Continuous Sampler				LOGGED BY: Adam Taylor, PG	
HAMMER WEIGHT: NA	DROP: NA			RESPONSIBLE PROFESSIONAL: Kelly Beck, PG	REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/Foot	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM	PID READING (ppm)	REMARKS
				Gravel cover. Fill material comprised of gravel, silt, clay and chert.	20.0	
1						
2	2-4'	X			54.9	
3						
4				Brownish orange silty clay (CL): dry, stiff, medium plasticity. Yellow powder visible on exterior of sample core on the entire core run.	138.1	
5	4-6'	X				
6					59.5	
7						
8					29.5	
9						
10					24.4	
11						
12				Black and gray, soft, moist. Strong unknown odor in the remaining soil column.	37.4	
13						
14					34.2	
15	14-16'	X				
16				Borehole terminated at 16 feet below ground surface.		
17						
18						
19						
20						
21						
22						
23						
24						
25						

RMRK3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas				**Log of Boring No. DPT-19**	
BORING LOCATION: See Site Map				ELEVATION AND DATUM: NM	
DRILLING CONTRACTOR: Boart Longyear				DATE STARTED: 3/28/08	DATE FINISHED: 3/28/08
DRILLING METHOD: Direct Push				TOTAL DEPTH (ft.): 10.0	MEASURING POINT: NM
DRILLING EQUIPMENT: 6620DT				DEPTH TO WATER: FIRST NA / COMPL. NA	24 HRS. NA
SAMPLING METHOD: Solid Barrel Continuous Sampler				LOGGED BY: Adam Taylor, PG	
HAMMER WEIGHT: NA	DROP: NA			RESPONSIBLE PROFESSIONAL: Kelly Beck, PG	REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/Foot	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM	PID READING (ppm)	REMARKS
	2-4'	X		Gravel cover. Fill material comprised of gravel, silt, clay and chert.	0.6	
1						
2					2.4	
3						
4					3.6	
5						
6				Two-inch black clay string at 6 feet. Strong odor.	3.2	
7						
8					6.0	
9						
10				Borehole terminated at 16 feet below ground surface.		
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						

RMRK3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas				**Log of Boring No. DPT-20**	
BORING LOCATION: See Site Map				ELEVATION AND DATUM: NM	
DRILLING CONTRACTOR: Boart Longyear				DATE STARTED: 3/28/08	DATE FINISHED: 3/28/08
DRILLING METHOD: Direct Push				TOTAL DEPTH (ft.): 10.0	MEASURING POINT: NM
DRILLING EQUIPMENT: 6620DT				DEPTH TO WATER: FIRST NA / COMPL. NA	24 HRS. NA
SAMPLING METHOD: Solid Barrel Continuous Sampler				LOGGED BY: Adam Taylor, PG	
HAMMER WEIGHT: NA	DROP: NA			RESPONSIBLE PROFESSIONAL: Kelly Beck, PG	REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM	PID READING (ppm)	REMARKS
				Gravel cover. White gravel with some clay and sand.	4.9	
1						
2				Brownish orange silty clay (CL): dry, stiff, medium plasticity. Yellow powder visible.	10.9	
3	2-4'	X				
4					NR	
5						
6					NR	
7						
8					13.4	
9						
10				Borehole terminated a 10 feet below ground surface.		
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						

RMRK3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas				**Log of Boring No. DPT-21**	
BORING LOCATION: See Site Map				ELEVATION AND DATUM: NM	
DRILLING CONTRACTOR: Boart Longyear				DATE STARTED: 3/28/08	DATE FINISHED: 3/28/08
DRILLING METHOD: Direct Push				TOTAL DEPTH (ft.): 10.0	MEASURING POINT: NM
DRILLING EQUIPMENT: 6620DT				DEPTH TO WATER: FIRST NA / COMPL. NA	24 HRS. NA
SAMPLING METHOD: Solid Barrel Continuous Sampler				LOGGED BY: Adam Taylor, PG	
HAMMER WEIGHT: NA	DROP: NA			RESPONSIBLE PROFESSIONAL: Kelly Beck, PG	REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/Foot	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM	PID READING (ppm)	REMARKS
				Gravel cover. Fill material comprised of gravel, silt, clay and chert.	4.0	
1						
2				Brownish orange silty clay (CL): dry, stiff, medium plasticity.	12.7	
3	2-4'	X		Yellow powder visible on exterior of sample core on the entire core run.		
4				One-inch seam of heavily iron-stained clay.	8.3	
5						
6					7.0	
7						
8					9.8	
9	8-10'	X				
10				Borehole terminated at 10 feet below ground surface.		
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						

RMRK3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas				**Log of Boring No. DPT-22**	
BORING LOCATION: See Site Map				ELEVATION AND DATUM: NM	
DRILLING CONTRACTOR: Boart Longyear				DATE STARTED: 3/28/08	DATE FINISHED: 3/28/08
DRILLING METHOD: Direct Push				TOTAL DEPTH (ft.): 10.0	MEASURING POINT: NM
DRILLING EQUIPMENT: 6620DT				DEPTH TO WATER: FIRST NA / COMPL. NA	24 HRS. NA
SAMPLING METHOD: Solid Barrel Continuous Sampler				LOGGED BY: Adam Taylor, PG	
HAMMER WEIGHT: NA	DROP: NA			RESPONSIBLE PROFESSIONAL: Kelly Beck, PG	REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/Foot	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM	PID READING (ppm)	REMARKS
1	2-4'	X		Asphalt/concrete cover. Fill material comprised of gravel, silt, clay and chert.	31.9	
2					81.9	
3						
4				Brownish orange silty clay (CL): dry, stiff, medium plasticity. Yellow powder visible on exterior of sample core on the entire core run.	44.6	
5						
6					20.3	
7						
8	8-10'	X			17.2	
9						
10				Borehole terminated at 10 feet below ground surface.		
11						
12						
13						
14						
15						
16						
17						
18						
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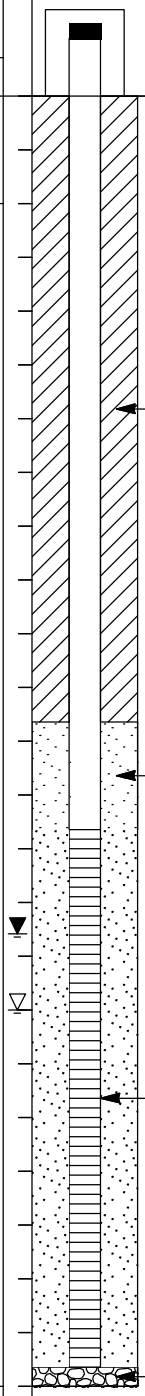
22						
23						
24						
25						

RMRK3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas	**Log of Well No. DPT-23/TW-6**
BORING LOCATION: See Site Map	GROUND SURFACE ELEVATION AND DATUM: NM
DRILLING CONTRACTOR: Boart Longyear	DATE STARTED: 3/28/08 / DATE FINISHED: 3/28/08
DRILLING METHOD: Direct Push	TOTAL DEPTH (ft.): 24.0 / SCREEN INTERVAL (ft.): 10 feet
DRILLING EQUIPMENT: 6620DT	DEPTH TO WATER ATD: 17 / CASING: 17.07
SAMPLING METHOD: Solid Barrel Continuous Sampler	LOGGED BY: Adam Taylor, PG
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG / REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	Sample	Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM
				NR	Asphalt cover. White gravel with some clay and sand.
	2-4'	X		73.9	Brownish orange silty clay (CL): dry, stiff, medium plasticity. Yellow powder visible in entire soil column.
	4-6'	X		155.5	Dark brown, moist, soft.
5				42.4	Brownish orange, dry, stiff. Clay percentage increases with depth.
				30.9	
10				32.2	
				16.4	Silt percentage increases with depth.
15	14-16'	X		17.0	
				10.9	Wet from 17 to 19 feet.
				7.2	
20				12.0	Turns gray with orange mottle.
				7.8	
25					Borehole terminated at 24 feet below ground surface.

WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS



WELL3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas				**Log of Boring No. DPT-24**	
BORING LOCATION: See Site Map				ELEVATION AND DATUM: NM	
DRILLING CONTRACTOR: Boart Longyear				DATE STARTED: 3/29/08	DATE FINISHED: 3/29/08
DRILLING METHOD: Direct Push				TOTAL DEPTH (ft.): 10.0	MEASURING POINT: NM
DRILLING EQUIPMENT: 6620DT				DEPTH TO WATER: FIRST NA; COMPL. NA; 24 HRS. NA	
SAMPLING METHOD: Solid Barrel Continuous Sampler				LOGGED BY: Adam Taylor, PG	
HAMMER WEIGHT: NA	DROP: NA			RESPONSIBLE PROFESSIONAL: Kelly Beck, PG	REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/Foot	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM	PID READING (ppm)	REMARKS
1				Asphalt/concrete cover. Fill material comprised of gravel, silt, clay and chert.	1.0	
2				Brownish orange silty clay (CL): dry, stiff, medium plasticity. Strong unknown odor.	3.1	
3	2-4'	X				
4					7.7	
5						
6					12.7	
7						
8		X			15.1	
9	8-10'					
10				Borehole terminated at 10 feet below ground surface.		
11						
12						
13						
14						
15						
16						
17						
18						
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20						
21						
22						
23						
24						
25						

RMRK3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas				**Log of Boring No. DPT-25**	
BORING LOCATION: See Site Map				ELEVATION AND DATUM: NM	
DRILLING CONTRACTOR: Boart Longyear				DATE STARTED: 3/29/08	DATE FINISHED: 3/29/08
DRILLING METHOD: Direct Push				TOTAL DEPTH (ft.): 10.0	MEASURING POINT: NM
DRILLING EQUIPMENT: 6620DT				DEPTH TO WATER	FIRST: NA / COMPL.: NA / 24 HRS.: NA
SAMPLING METHOD: Solid Barrel Continuous Sampler				LOGGED BY: Adam Taylor, PG	
HAMMER WEIGHT: NA	DROP: NA			RESPONSIBLE PROFESSIONAL: Kelly Beck, PG	REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/Foot	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM	PID READING (ppm)	REMARKS
1				Asphalt/concrete cover. Fill material comprised of gravel, silt, clay and chert.	2.5	
2					8.3	
3	2-4'	X		Brownish orange silty clay (CL): dry, stiff, medium plasticity. Yellow powder visible on exterior of sample core on the entire core run.		
4					6.9	
5						
6					7.6	
7	6-8'	X				
8					6.7	
9						
10				Borehole terminated at 10 feet below ground surface.		
11						
12						
13						
14						
15						
16						
17						
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22						
23						
24						
25						

RMRK3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas				**Log of Boring No. DPT-26**
BORING LOCATION: See Site Map				ELEVATION AND DATUM: NM
DRILLING CONTRACTOR: Boart Longyear				DATE STARTED: 3/29/08 / DATE FINISHED: 3/29/08
DRILLING METHOD: Direct Push				TOTAL DEPTH (ft.): 10.0 / MEASURING POINT: NM
DRILLING EQUIPMENT: 6620DT				DEPTH TO WATER: FIRST NA / COMPL. NA / 24 HRS. NA
SAMPLING METHOD: Solid Barrel Continuous Sampler				LOGGED BY: Adam Taylor, PG
HAMMER WEIGHT: NA	DROP: NA			RESPONSIBLE PROFESSIONAL: Kelly Beck, PG / REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/Foot	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM	PID READING (ppm)	REMARKS
1				Asphalt/concrete cover. Fill material comprised of gravel, silt, clay and chert.	0.2	
2	2-4'	X		Brownish orange silty clay (CL): dry, stiff, medium plasticity. Yellow powder visible on exterior of sample core on the entire core run.	9.2	
3						
4	4-6'	X			26.5	
5						
6					21.6	
7						
8					18.1	
9						
10				Borehole terminated at 10 feet below ground surface.		
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
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22						
23						
24						
25						

RMRK3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas				**Log of Boring No. DPT-27**	
BORING LOCATION: See Site Map				ELEVATION AND DATUM: NM	
DRILLING CONTRACTOR: Boart Longyear				DATE STARTED: 3/29/08	DATE FINISHED: 3/29/08
DRILLING METHOD: Direct Push				TOTAL DEPTH (ft.): 10.0	MEASURING POINT: NM
DRILLING EQUIPMENT: 6620DT				DEPTH TO WATER: FIRST NA / COMPL. NA	24 HRS. NA
SAMPLING METHOD: Solid Barrel Continuous Sampler				LOGGED BY: Adam Taylor, PG	
HAMMER WEIGHT: NA	DROP: NA			RESPONSIBLE PROFESSIONAL: Kelly Beck, PG	REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/Foot	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM	PID READING (ppm)	REMARKS
1	0-2'	X		Asphalt/concrete cover. Fill material comprised of gravel, silt, clay and chert.	14.8	
2				Brownish orange silty clay (CL): dry, stiff, medium plasticity. Yellow powder visible on exterior of sample core on the entire core run.	8.2	
3						
4					8.4	
5						
6					8.0	
7						
8	8-10'	X			9.3	
9						
10				Borehole terminated at 10 feet below ground surface.		
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						

RMRK3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas	**Log of Boring No. DPT-28**			
BORING LOCATION: See Site Map	ELEVATION AND DATUM: NM			
DRILLING CONTRACTOR: Boart Longyear	DATE STARTED: 3/29/08	DATE FINISHED: 3/29/08		
DRILLING METHOD: Direct Push	TOTAL DEPTH (ft.): 24.0	MEASURING POINT: NM		
DRILLING EQUIPMENT: 6620DT	DEPTH TO WATER	FIRST 15	COMPL. NA	24 HRS. NA
SAMPLING METHOD: Solid Barrel Continuous Sampler	LOGGED BY: Adam Taylor, PG			
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG		REG. NO. 2523	

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM	PID READING (ppm)	REMARKS
				Grass cover. Gray and orangish brown gravel fill with silt, clay and some sand.	1.1	
1						
2					18.3	
3				Light brown silty clay (CL): stiff, dry, medium plasticity. Yellow powder visible on exterior of sample. Sweet, unknown odor.		
4					NR	
5						
6					7.5	
7						
8				Turns orangish brown and soft. Silt percentage increases with depth. Strong odor.	84.1	
9						
10	8-12'					
11						
12					42.3	
13						
14						
15				Wet from 15 to 16.5 and 18 to 19.5 feet.		
16					55.8	
17						
18						
19						
20				Firm	59.2	
21						
22						
23						
24				Borehole terminated at 24 feet below ground surface.		
25						

RMRK3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas				**Log of Boring No. DPT-29**	
BORING LOCATION: See Site Map				ELEVATION AND DATUM: NM	
DRILLING CONTRACTOR: Boart Longyear				DATE STARTED: 3/29/08	DATE FINISHED: 3/29/08
DRILLING METHOD: Direct Push				TOTAL DEPTH (ft.): 20.0	MEASURING POINT: NM
DRILLING EQUIPMENT: 6620DT				DEPTH TO WATER: FIRST 15	COMPL. NA / 24 HRS. NA
SAMPLING METHOD: Solid Barrel Continuous Sampler				LOGGED BY: Adam Taylor, PG	
HAMMER WEIGHT: NA	DROP: NA			RESPONSIBLE PROFESSIONAL: Kelly Beck, PG	REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM	PID READING (ppm)	REMARKS
0–2				Grass cover. Gray and orangish brown gravel fill with silt, clay and some sand.	1.8	
2–20	4-8'	X		Brownish orange silty clay (CL): stiff, dry, medium plasticity. Strong unknown odor.	2.6	
8				Silt percentage increases with depth.	2.1	
12					0.7	
15				Wet from 15 to 16.5 and 18 to 19 feet.		
16					0.4	
19				Turns gray. No free water.		
20				Borehole terminated at 20 feet below ground surface.		

RMRK3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas		**Log of Boring No. DPT-30**	
BORING LOCATION: See Site Map		ELEVATION AND DATUM: NM	
DRILLING CONTRACTOR: Boart Longyear		DATE STARTED: 3/29/08	DATE FINISHED: 3/29/08
DRILLING METHOD: Direct Push		TOTAL DEPTH (ft.): 20.0	MEASURING POINT: NM
DRILLING EQUIPMENT: 6620DT		DEPTH TO WATER: FIRST 15.75	COMPL. NA / 24 HRS. NA
SAMPLING METHOD: Solid Barrel Continuous Sampler		LOGGED BY: Adam Taylor, PG	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG	REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/Foot	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. (Surface Elevation: NM)	PID READING (ppm)	REMARKS
1	0-4'			Grass cover. Gray and orangish brown gravel fill with silt, clay and some sand.	126.5	
2				Brownish orange silty clay (CL): stiff, dry, medium plasticity. Strong, sweet unknown odor.		
3						
4					17.9	
5						
6						
7						
8				Silt percentage increases with depth.	12.4	
9						
10						
11						
12				Turns greenish gray with black mottle.	5.4	
13						
14				Turns brownish orange.		
15						
16				Wet from 15.75 to 17 feet.	4.2	
17						
18						
19						
20				Borehole terminated at 20 feet below ground surface.		
21						
22						
23						
24						
25						

RMRK3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas				Log of Boring No. DPT-31	
BORING LOCATION: See Site Map				ELEVATION AND DATUM: NM	
DRILLING CONTRACTOR: Boart Longyear				DATE STARTED: 3/29/08	DATE FINISHED: 3/29/08
DRILLING METHOD: Direct Push				TOTAL DEPTH (ft.): 20.0	MEASURING POINT: NM
DRILLING EQUIPMENT: 6620DT				DEPTH TO WATER: FIRST NA / COMPL. NA	24 HRS. NA
SAMPLING METHOD: Solid Barrel Continuous Sampler				LOGGED BY: Adam Taylor, PG	
HAMMER WEIGHT: NA	DROP: NA			RESPONSIBLE PROFESSIONAL: Kelly Beck, PG	REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/Foot	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM	PID READING (ppm)	REMARKS
1				Grass cover. Gray and orangish brown gravel fill with silt, clay and some sand.	4.2	
2						
3				Brownish orange silty clay (CL): stiff, dry, medium plasticity. Strong unknown odor.		
4					10.4	
5						
6						
7						
8	8-12'			Silt percentage increases with depth.	30.9	
9						
10						
11						
12					28.1	
13						
14						
15						
16					3.7	
17						
18				Some gray mottle, no free water.		
19						
20				Borehole terminated at 20 feet below ground surface.		
21						
22						
23						
24						
25						

RMRK3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas	**Log of Boring No. DPT-32**			
BORING LOCATION: See Site Map	ELEVATION AND DATUM: NM			
DRILLING CONTRACTOR: Boart Longyear	DATE STARTED: 3/29/08	DATE FINISHED: 3/29/08		
DRILLING METHOD: Direct Push	TOTAL DEPTH (ft.): 20.0	MEASURING POINT: NM		
DRILLING EQUIPMENT: 6620DT	DEPTH TO WATER	FIRST NA	COMPL. NA	24 HRS. NA
SAMPLING METHOD: Solid Barrel Continuous Sampler	LOGGED BY: Adam Taylor, PG			
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG		REG. NO. 2523

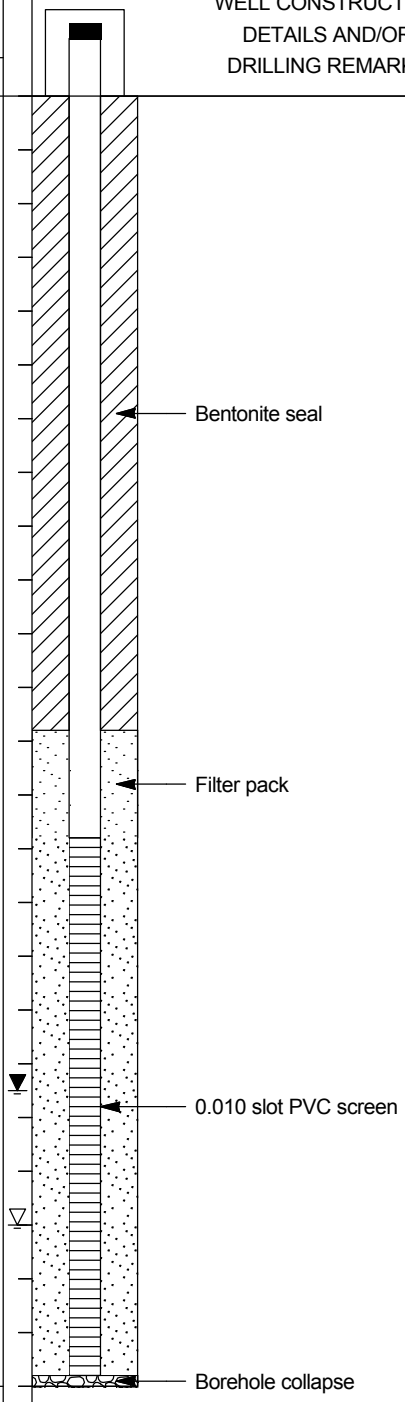
DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM	PID READING (ppm)	REMARKS
1, 2				Grass cover. Brownish orange silty clay (CL): dry, firm, medium plasticity.	0.3	
3, 4, 5, 6, 7, 8				Sharp contact, turns gray. Slight unknown odor. Some black mottle.	0.4, 21.9	
9, 10, 11, 12, 13, 14, 15, 16	12-16'	X		Grades to brownish orange. Silt percentage increases with depth. Grades to gray, no free water.	104.2, 34.4	
17, 18, 19, 20, 21, 22, 23, 24, 25				Borehole terminated at 20 feet below ground surface.		

RMRK3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas	**Log of Well No. DPT-33/TW-7**
BORING LOCATION: See Site Map	GROUND SURFACE ELEVATION AND DATUM: NM
DRILLING CONTRACTOR: Boart Longyear	DATE STARTED: 3/29/08 / DATE FINISHED: 3/29/08
DRILLING METHOD: Direct Push	TOTAL DEPTH (ft.): 24.0 / SCREEN INTERVAL (ft.): 10 feet
DRILLING EQUIPMENT: 6620DT	DEPTH TO WATER ATD: 21 / CASING: 16.30
SAMPLING METHOD: Solid Barrel Continuous Sampler	LOGGED BY: Adam Taylor, PG
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG / REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	Sample	Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM
				6.0	Grass cover. Brownish orange silty clay (CL): stiff, dry, medium plasticity. Slight unknown odor.
				86.1	Softer with depth.
5					
				157.2	Becomes firm.
10	8-12'				
				71.7	Silt percentage increases with depth.
15					
				7.2	
20				1.6	Wet from 21 to 23 feet. Turns gray.
					Bottom of borehole terminated a 24 feet below ground
25					

WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS



WELL3

PROJECT: Cedar Chemical Corporation Inc.
Helena - West Helena, Arkansas

Log of Well No. DPT-33/TW-7 (cont'd)

DEPTH (feet)	SAMPLES Sample No.	Sample	Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.		WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
					surface.		
30							
35							
40							
45							
50							
55							

WELL3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas				**Log of Boring No. DPT-34**	
BORING LOCATION: See Site Map				ELEVATION AND DATUM: NM	
DRILLING CONTRACTOR: Boart Longyear				DATE STARTED: 3/29/08	DATE FINISHED: 3/29/08
DRILLING METHOD: Direct Push				TOTAL DEPTH (ft.): 20.0	MEASURING POINT: NM
DRILLING EQUIPMENT: 6620DT				DEPTH TO WATER: FIRST 17	COMPL. NA / 24 HRS. NA
SAMPLING METHOD: Solid Barrel Continuous Sampler				LOGGED BY: Adam Taylor, PG	
HAMMER WEIGHT: NA	DROP: NA			RESPONSIBLE PROFESSIONAL: Kelly Beck, PG	REG. NO. 2523

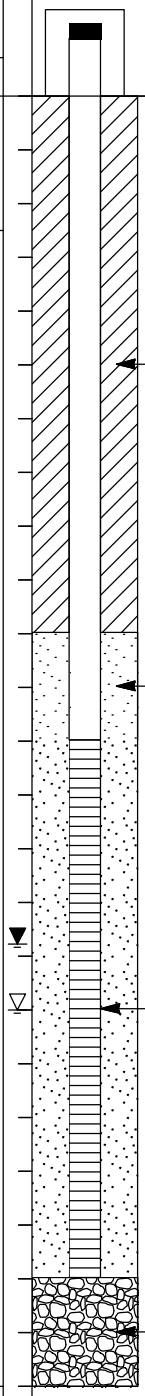
DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM	PID READING (ppm)	REMARKS
1				Grass cover. Brownish orange silty clay (CL): dry, firm, medium plasticity.	6.1	
2						
3				Sharp contact, turns gray.		
4				Grades to black with some gray mottle.	1.2	
5						
6	4-8'					
7						
8					0.4	
9						
10						
11						
12					0.3	
13				Turns gray.		
14						
15				Sharp contact. Turns brownish orange.		
16					0.4	
17				Wet from 17 to 20 feet.		
18						
19						
20				Borehole terminated at 20 feet below ground surface.		
21						
22						
23						
24						
25						

RMRK3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas	**Log of Well No. DPT-35/TW-8**
BORING LOCATION: See Site Map	GROUND SURFACE ELEVATION AND DATUM: NM
DRILLING CONTRACTOR: Boart Longyear	DATE STARTED: 3/30/08 / DATE FINISHED: 3/30/08
DRILLING METHOD: Direct Push	TOTAL DEPTH (ft.): 24.0 / SCREEN INTERVAL (ft.): 10 feet
DRILLING EQUIPMENT: 6620DT	DEPTH TO WATER ATD: 17 / CASING: 15.22
SAMPLING METHOD: Solid Barrel Continuous Sampler	LOGGED BY: Adam Taylor, PG
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG / REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	Sample	Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM
				4.1	Grass cover. Gray and orangish brown gravel fill with silt, clay and some sand.
				5.3	Light brown silty clay (CL): stiff, dry, medium plasticity. Yellow powder visible on exterior of sample. Sweet, unknown odor.
5					
				4.7	Turns orangish brown and soft. Silt percentage increases with depth. Strong odor. Yellow substance visible on exterior of core.
10					
	12-16'			8.2	
15					
				5.8	Wet from 17 to 18.5 feet.
20				7.2	
					Orange with gray mottle.
					Borehole terminated at 24 feet below ground surface.
25					

WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS

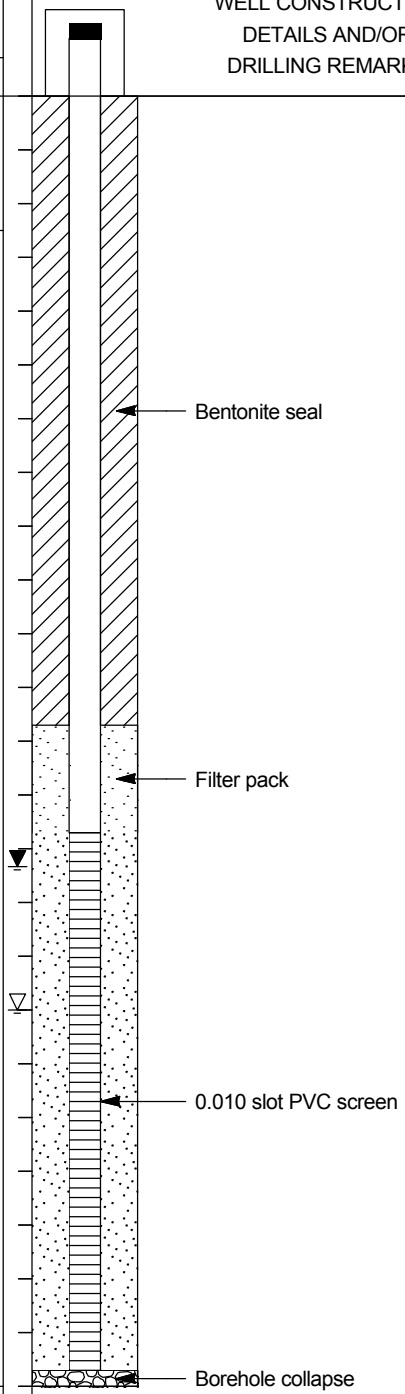


WELL3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas	**Log of Well No. DPT-36/TW-9**
BORING LOCATION: See Site Map	GROUND SURFACE ELEVATION AND DATUM: NM
DRILLING CONTRACTOR: Boart Longyear	DATE STARTED: 3/30/08 / DATE FINISHED: 3/30/08
DRILLING METHOD: Direct Push	TOTAL DEPTH (ft.): 24.0 / SCREEN INTERVAL (ft.): 10 feet
DRILLING EQUIPMENT: 6620DT	DEPTH TO WATER ATD: 17 / CASING: 11.40
SAMPLING METHOD: Solid Barrel Continuous Sampler	LOGGED BY: Adam Taylor, PG
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG / REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	Sample	Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM
				0.0	Grass cover. Gray and orangish brown gravel fill with silt, clay and some sand.
				0.8	Light brown silty clay (CL): stiff, dry, medium plasticity. Yellow powder visible on exterior of sample core. Sweet, unknown odor.
5	4-8'				
				0.0	Turns orangish brown and soft. Silt percentage increases with depth. Strong unknown odor.
10					
				0.0	
15					
				0.0	Wet from 17 to 18.5 feet.
20				1.2	Firm Turns orangish brown with some gray mottle.
					Borehole terminated at 24 feet below ground surface.
25					

WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS



WELL3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas		**Log of Boring No. DPT-37**	
BORING LOCATION: See Site Map		ELEVATION AND DATUM: NM	
DRILLING CONTRACTOR: Boart Longyear		DATE STARTED: 3/30/08	DATE FINISHED: 3/30/08
DRILLING METHOD: Direct Push		TOTAL DEPTH (ft.): 20.0	MEASURING POINT: NM
DRILLING EQUIPMENT: 6620DT		DEPTH TO WATER: FIRST 16	COMPL. NA / 24 HRS. NA
SAMPLING METHOD: Solid Barrel Continuous Sampler		LOGGED BY: Adam Taylor, PG	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG	REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/Foot	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM	PID READING (ppm)	REMARKS
0–2				Asphalt/concrete cover. Fill material comprised of sand and crushed concrete.	0.2	
2–20				Brownish orange silty clay (CL): moist, firm, medium plasticity.		
4	4-8'			Water in the hole.	0.0	
8					0.1	
12					0.6	
16				Wet from 16 to 18 feet.	3.4	
20				Borehole terminated at 20 feet below ground surface.		

RMRK3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas	**Log of Boring No. DPT-38**			
BORING LOCATION: See Site Map	ELEVATION AND DATUM: NM			
DRILLING CONTRACTOR: Boart Longyear	DATE STARTED: 3/30/08	DATE FINISHED: 3/30/08		
DRILLING METHOD: Direct Push	TOTAL DEPTH (ft.): 20.0	MEASURING POINT: NM		
DRILLING EQUIPMENT: 6620DT	DEPTH TO WATER	FIRST 18	COMPL. NA	24 HRS. NA
SAMPLING METHOD: Solid Barrel Continuous Sampler	LOGGED BY: Adam Taylor, PG			
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG		REG. NO. 2523	

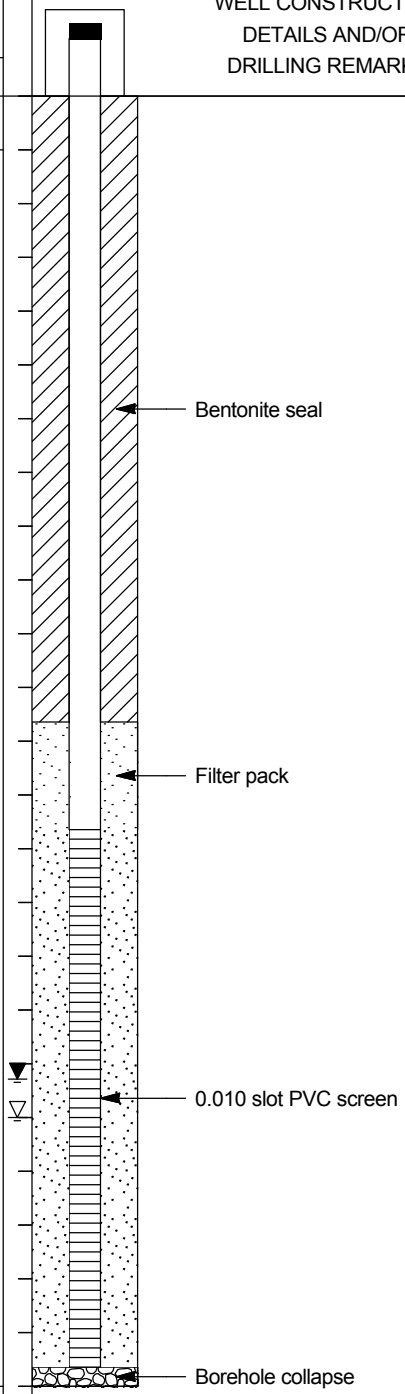
DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM	PID READING (ppm)	REMARKS
1				Asphalt/concrete cover. Fill material comprised of sand and crushed concrete.	0.0	
2				Silty clay (CL): Alternates in color in approximately 6-ich layers from brownish orange to greenish gray. Soft and moist.		
3						
4	4-8'			More silt than above.	0.0	
5						
6						
7						
8				Greenish gray and stiff from 8 feet to 11 feet.	0.0	
9						
10						
11				Brownish orange and soft from 11 feet to 12 feet.		
12				No recovery from 12 to 16 feet.	NR	
13						
14						
15						
16				Gray with black mottle. Wet from 18 to 19 feet. Moderate unknown odor.	0.0	
17						
18						
19						
20				Borehole terminated at 20 feet below ground surface.		
21						
22						
23						
24						
25						

RMRK3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas	**Log of Well No. DPT-39/TW-10**
BORING LOCATION: See Site Map	GROUND SURFACE ELEVATION AND DATUM: NM
DRILLING CONTRACTOR: Boart Longyear	DATE STARTED: 3/30/08 / DATE FINISHED: 3/30/08
DRILLING METHOD: Direct Push	TOTAL DEPTH (ft.): 24.0 / SCREEN INTERVAL (ft.): 10 feet
DRILLING EQUIPMENT: 6620DT	DEPTH TO WATER ATD: 19 / CASING: 16.71
SAMPLING METHOD: Solid Barrel Continuous Sampler	LOGGED BY: Adam Taylor, PG
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG / REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	Sample	Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM
				0.0	Asphalt/concrete cover. Black and brown fill material comprised of some dry sand, clay, and chert.
				2.6	Brownish orange silty clay (CL): stiff, dry, medium plasticity. Slight unknown odor.
5	4-8'				
				17.8	
10					
				52.8	Silt percentage increases with depth.
15					
				47.7	
					Wet from 19 to 22 feet. Strong odor.
20				21.5	
					Borehole terminated at 24 feet below ground surface.
25					

WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS



WELL3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas		**Log of Boring No. DPT-40**	
BORING LOCATION: See Site Map		ELEVATION AND DATUM: NM	
DRILLING CONTRACTOR: Boart Longyear		DATE STARTED: 3/30/08	DATE FINISHED: 3/30/08
DRILLING METHOD: Direct Push		TOTAL DEPTH (ft.): 20.0	MEASURING POINT: NM
DRILLING EQUIPMENT: 6620DT		DEPTH TO WATER: FIRST 18.5 / COMPL. NA / 24 HRS. NA	
SAMPLING METHOD: Solid Barrel Continuous Sampler		LOGGED BY: Adam Taylor, PG	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG	REG. NO. 2523

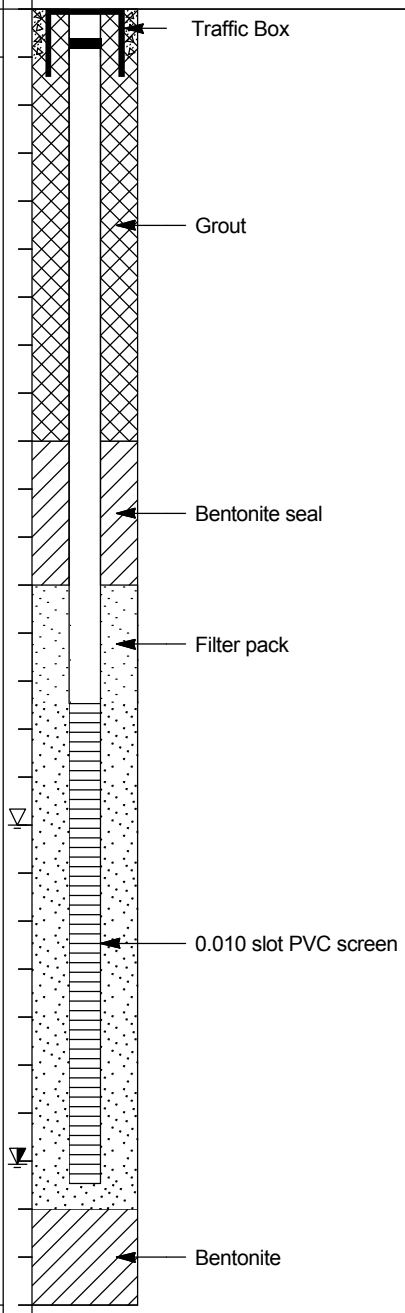
DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/Foot	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM	PID READING (ppm)	REMARKS
1	0-4'			Asphalt/concrete cover. Fill material comprised of sand and crushed concrete.	0.0	
2				Greenish gray silty clay (CL): dry, stiff, medium plasticity.		
3						
4					0.0	
5						
6						
7						
8					0.0	
9				Greenish black grading to greenish brown at 12 feet. Silt percentage increases with depth.		
10						
11						
12					0.0	
13				Sharp contact. Turns brownish orange then grades to greenish gray. Slight odor.		
14						
15						
16					0.0	
17				Brownish orange. Wet from 18.5 to 20 feet. Strong odor.		
18						
19						
20				Borehole terminated at 20 feet below ground surface.		
21						
22						
23						
24						
25						

RMRK3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas	**Log of Well No. MW-10**
BORING LOCATION: See Site Map	GROUND SURFACE ELEVATION AND DATUM: 199.39
DRILLING CONTRACTOR: Boart Longyear	DATE STARTED: 6/7/08 / DATE FINISHED: 6/7/08
DRILLING METHOD: Sonic	TOTAL DEPTH (ft.): 27.0 / SCREEN INTERVAL (ft.): 10 feet
DRILLING EQUIPMENT: Track-mounted	DEPTH TO WATER ATD: 17 / CASING:
SAMPLING METHOD: Solid Barrel Continuous Sampler	LOGGED BY: Adam Taylor, PG
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG / REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	Sample	Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: 199.39
				0.0	Concrete/asphalt fill.
					Perched zone. Brownish orange silty clay (CL): soft, dry, medium plasticity. Yellow residue visible on exterior portion of sample.
5					
				0.1	No yellow residue visible.
10					
15					Turns gray with orange mottle, wet.
				0.0	
20					
25					
					Borehole terminated at 27 ft-bgs.

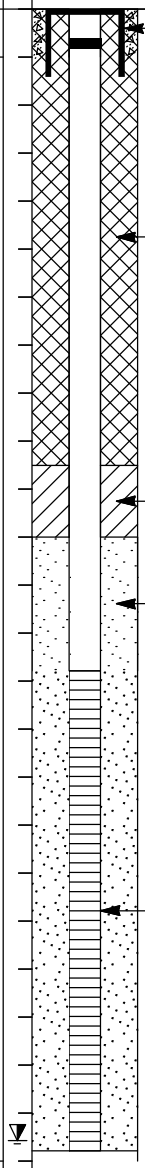
WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS



WELL3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas		**Log of Well No. MW-11**	
BORING LOCATION: See Site Map		GROUND SURFACE ELEVATION AND DATUM: NM	
DRILLING CONTRACTOR: Boart Longyear		DATE STARTED: 6/3/08	DATE FINISHED: 6/3/08
DRILLING METHOD: Sonic		TOTAL DEPTH (ft.): 24.0	SCREEN INTERVAL (ft.): 10 feet
DRILLING EQUIPMENT: Track-mounted		DEPTH TO WATER ATD: Not Determined	CASING:
SAMPLING METHOD: Solid Barrel Continuous Sampler		LOGGED BY: Adam Taylor, PG	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG	REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: NM	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
				NA	Concrete/asphalt fill.	Traffic Box
					Perched zone. Brownish orange silty clay (CL): soft, dry, medium plasticity.	
5						Grout
				NA		
10						Bentonite seal
						Filter pack
15					Poor recovery, could not determine water level.	
						0.010 slot PVC screen
20						
					Borehole terminated at 24 ft-bgs.	
25						

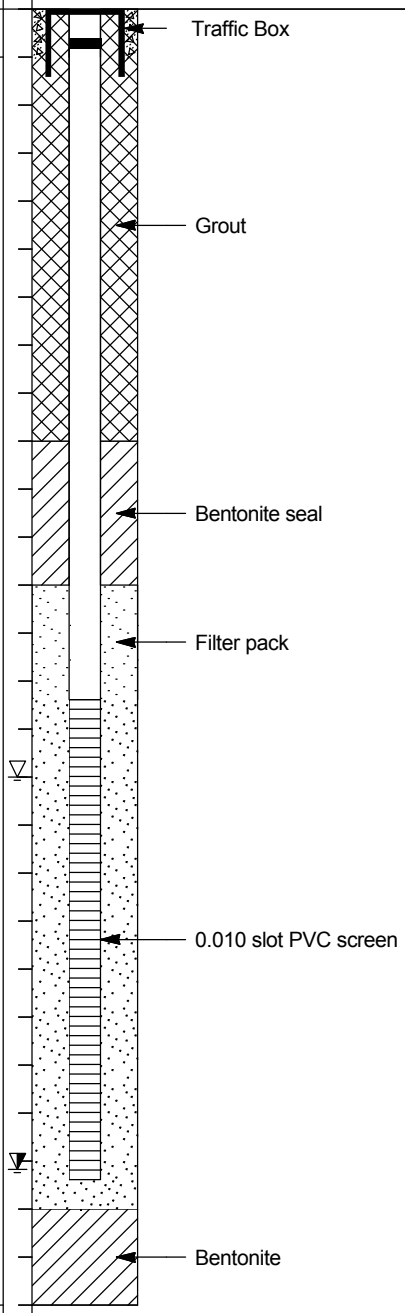


WELL3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas	**Log of Well No. MW-12**
BORING LOCATION: See Site Map	GROUND SURFACE ELEVATION AND DATUM: 198.31
DRILLING CONTRACTOR: Boart Longyear	DATE STARTED: 6/8/08 / DATE FINISHED: 6/8/08
DRILLING METHOD: Sonic	TOTAL DEPTH (ft.): 27.0 / SCREEN INTERVAL (ft.): 10 feet
DRILLING EQUIPMENT: Track-mounted	DEPTH TO WATER ATD: 16 / CASING:
SAMPLING METHOD: Solid Barrel Continuous Sampler	LOGGED BY: Adam Taylor, PG
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG / REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	Sample	Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: 198.31
				4.2	Concrete/asphalt fill.
					Perched zone. Brownish orange silty clay (CL), soft, dry, medium plasticity, unknown odor. No yellow residue visible.
5					
				31.3	
10					
15					Turns gray with orange mottle, wet.
				47.5	
20					
25					
					Borehole terminated at 27 ft-bgs.

WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS

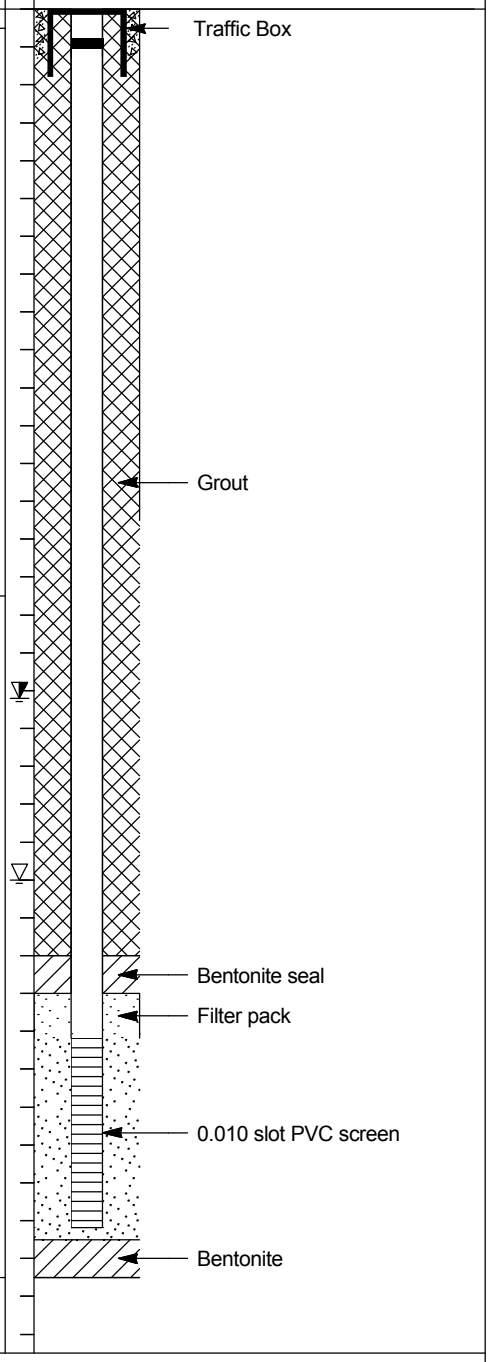


WELL3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas		**Log of Well No. MW-13**	
BORING LOCATION: See Site Map		GROUND SURFACE ELEVATION AND DATUM: 198.36	
DRILLING CONTRACTOR: Boart Longyear		DATE STARTED: 6/8/08	DATE FINISHED: 6/8/08
DRILLING METHOD: Sonic		TOTAL DEPTH (ft.): 27.0	SCREEN INTERVAL (ft.): 10 feet
DRILLING EQUIPMENT: Track-mounted		DEPTH TO WATER ATD: 46	CASING:
SAMPLING METHOD: Solid Barrel Continuous Sampler		LOGGED BY: Adam Taylor, PG	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG	REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: 198.36
				1.1	Concrete/asphalt fill.
					Perched zone. Brownish orange silty clay (CL), soft, dry, medium plasticity. Unknown odor. No yellow residue visible.
				3.5	
10					
					Turns gray with orange mottle, wet.
				1.8	
20					
				3.8	Turns dark gray, moist, and very soft.
30					
					Upper Alluvial. Medium gray, medium grained sand (SW), with silt and clay, moist, well graded, some yellow residue at 34 ft-bgs.
				3.4	Same sand as above without the fines.
40					
					Wet.
				0.1	
50					
					Slightly more coarse than above, wet.
				0.2	Darker gray
60					
					Borehole terminated at 67 ft-bgs.
70					

WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS

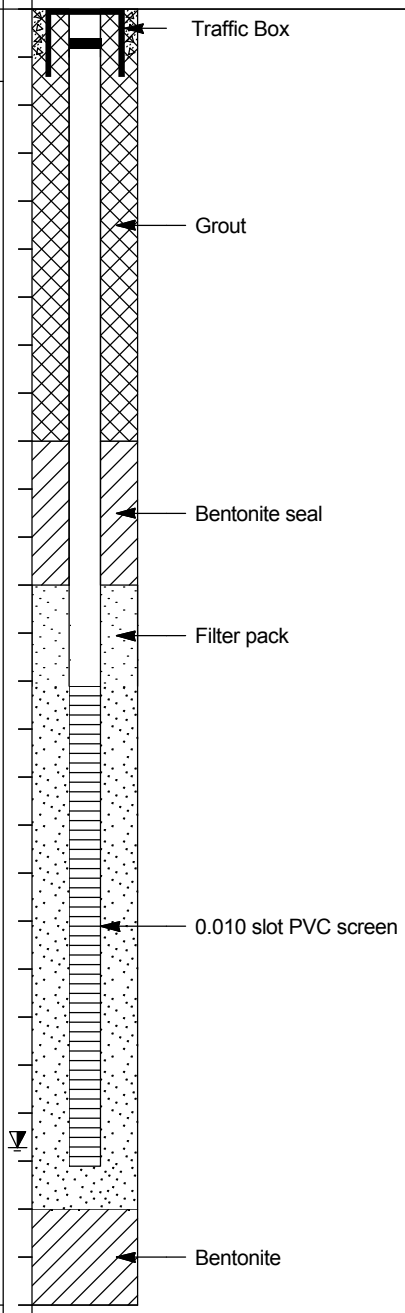


WELL3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas		**Log of Well No. MW-14**	
BORING LOCATION: See Site Map		GROUND SURFACE ELEVATION AND DATUM: 197.72	
DRILLING CONTRACTOR: Boart Longyear		DATE STARTED: 6/9/08	DATE FINISHED: 6/9/08
DRILLING METHOD: Sonic		TOTAL DEPTH (ft.): 27.0	SCREEN INTERVAL (ft.): 10 feet
DRILLING EQUIPMENT: Track-mounted		DEPTH TO WATER ATD: NA	CASING:
SAMPLING METHOD: Solid Barrel Continuous Sampler		LOGGED BY: Adam Taylor, PG	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG	REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: 197.72
				92.4	Concrete/asphalt fill.
					Perched zone. Brownish orange silty clay (CL): soft, dry, medium plasticity. Yellow residue visible on exterior portion of sample. Turns light gray. No yellow residue visible.
5					
				124.7	
10					
					Turns brownish orange.
15					
				226.5	
20					
25					Turns light gray with orange mottle. No free water visible.
					Borehole terminated at 27 ft-bgs.

WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS

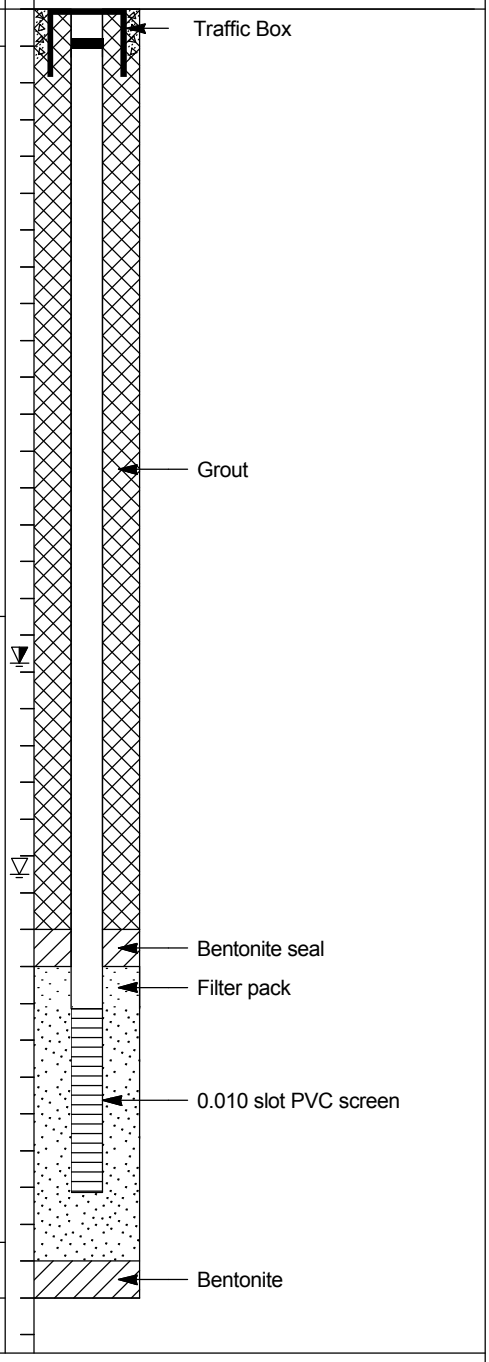


WELL3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas	**Log of Well No. MW-15**
BORING LOCATION: See Site Map	GROUND SURFACE ELEVATION AND DATUM: 197.59
DRILLING CONTRACTOR: Boart Longyear	DATE STARTED: 6/9/08 / DATE FINISHED: 6/9/08
DRILLING METHOD: Sonic	TOTAL DEPTH (ft.): 70.0 / SCREEN INTERVAL (ft.): 10 feet
DRILLING EQUIPMENT: Track-mounted	DEPTH TO WATER ATD: 47 / CASING:
SAMPLING METHOD: Solid Barrel Continuous Sampler	LOGGED BY: Adam Taylor, PG
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG / REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	Sample	Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: 197.59
				4.0	Concrete/asphalt fill.
					Perched zone. Dark gray silty clay (CL), soft, moist, medium plasticity. Slight odor.
				61.8	Turns brownish orange.
10					
					Wet.
				244	Strong unknown odor.
20					Turns light gray.
				183.0	
30					
					Upper alluvial. Dark gray fine to medium grained sand (SW), with silt and clay, moist, well graded. Strong odor.
				8.0	Turns medium gray, more coarse (medium grained) than above. No fines.
40					
				0.8	Wet.
50					
					Slightly more coarse.
				0.8	
60					
					Over drilled, no samples recovered.
70					Borehole terminated at 67 ft-bgs.

WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS

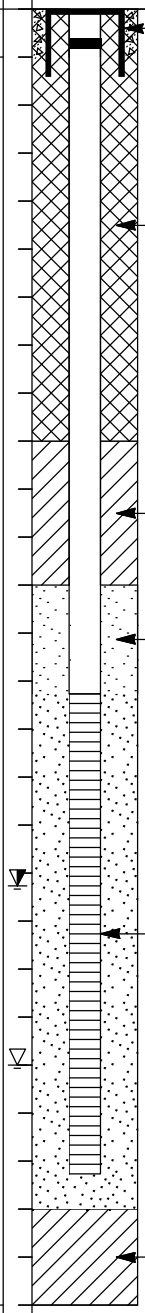


WELL3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas		**Log of Well No. MW-16**
BORING LOCATION: See Site Map		GROUND SURFACE ELEVATION AND DATUM: 196.40
DRILLING CONTRACTOR: Boart Longyear		DATE STARTED: 6/6/08 / DATE FINISHED: 6/6/08
DRILLING METHOD: Sonic		TOTAL DEPTH (ft.): 27.0 / SCREEN INTERVAL (ft.): 10 feet
DRILLING EQUIPMENT: Track-mounted		DEPTH TO WATER ATD: 22 / CASING:
SAMPLING METHOD: Solid Barrel Continuous Sampler		LOGGED BY: Adam Taylor, PG
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG / REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	Sample	Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.
					Surface Elevation: 196.40
				4.2	Concrete/asphalt cover.
					Perched zone. Brownish orange silty clay (CL), soft, moist to wet, medium plasticity. Yellow residue visible on exterior portion of sample.
5					
				31.3	No yellow residue visible.
10					
15					
				47.5	
20					
					Moist to wet.
					Turns brown gray with some iron staining. Moist to wet. Strong unknown odor.
25					
					Borehole terminated at 27 ft-bgs.

WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS

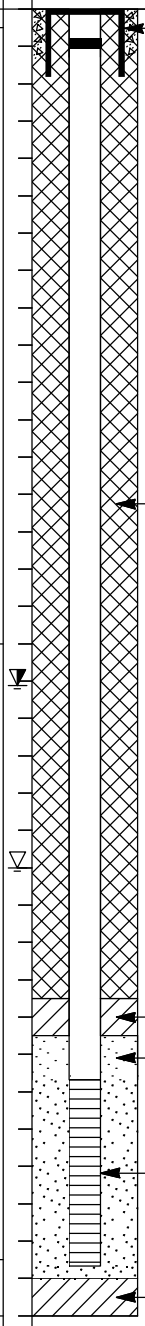


WELL3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas	**Log of Well No. MW-17**
BORING LOCATION: See Site Map	GROUND SURFACE ELEVATION AND DATUM: 198.36
DRILLING CONTRACTOR: Boart Longyear	DATE STARTED: 6/7/08 / DATE FINISHED: 6/7/08
DRILLING METHOD: Sonic	TOTAL DEPTH (ft.): 70.0 / SCREEN INTERVAL (ft.): 10 feet
DRILLING EQUIPMENT: Track-mounted	DEPTH TO WATER ATD: 46 / CASING:
SAMPLING METHOD: Solid Barrel Continuous Sampler	LOGGED BY: Adam Taylor, PG
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG / REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	Sample	Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: 198.36
				2.0	Concrete/asphalt fill.
					Perched zone. Brownish orange silty clay (CL), soft, dry, medium plasticity. Unknown odor. No yellow residue visible.
				3.6	
10					
				19.0	Turns gray with orange mottle, wet.
20					
				56.3	Turns dark gray, moist, and very soft.
30					
					Upper alluvial. Medium gray, medium grained sand (SW), with silt and clay, moist, well graded, some yellow residue at 34 ft-bgs. Same sand as above without the fines.
				6.1	
40					
					Wet.
				0.0	
50					Moist.
				0.0	Slightly more coarse.
60					
					Wet.
					Over drilled, no samples recovered.
70					Borehole terminated at 70 ft-bgs.

WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS

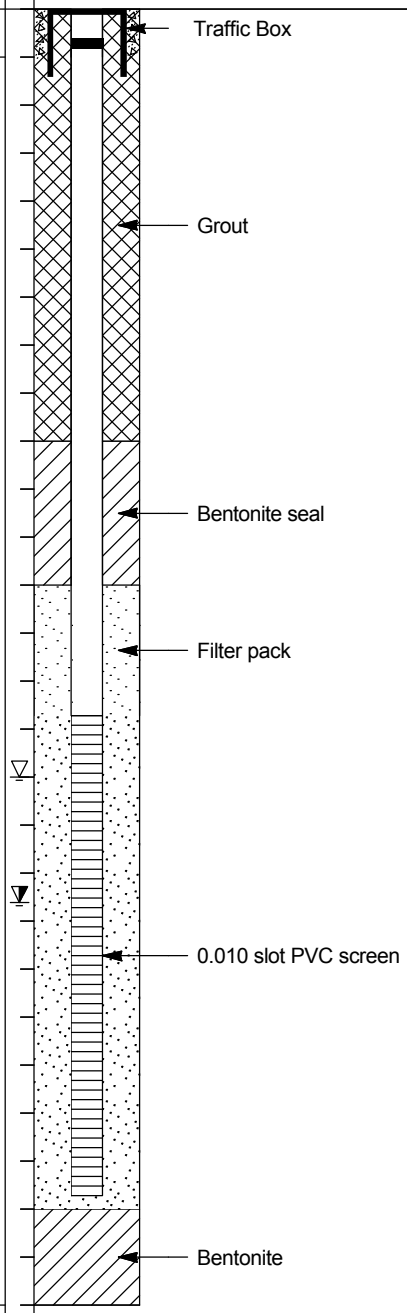


WELL3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas	**Log of Well No. MW-18**	
BORING LOCATION: See Site Map	GROUND SURFACE ELEVATION AND DATUM: 198.58	
DRILLING CONTRACTOR: Boart Longyear	DATE STARTED: 6/6/08	DATE FINISHED: 6/6/08
DRILLING METHOD: Sonic	TOTAL DEPTH (ft.): 27.0	SCREEN INTERVAL (ft.): 10 feet
DRILLING EQUIPMENT: Track-mounted	DEPTH TO WATER ATD: 16	CASING:
SAMPLING METHOD: Solid Barrel Continuous Sampler	LOGGED BY: Adam Taylor, PG	
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG	REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	Sample	Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: 198.58
				0.0	Grass cover. Gravel fill.
					Perched zone. Brownish orange silty clay (CL), soft, moist, medium plasticity.
5					
				1.9	
10					
15					Wet.
				10.7	
20					
					Turns brown gray with some iron staining, moist.
25					
					Borehole terminated at 27 ft-bgs.

WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS

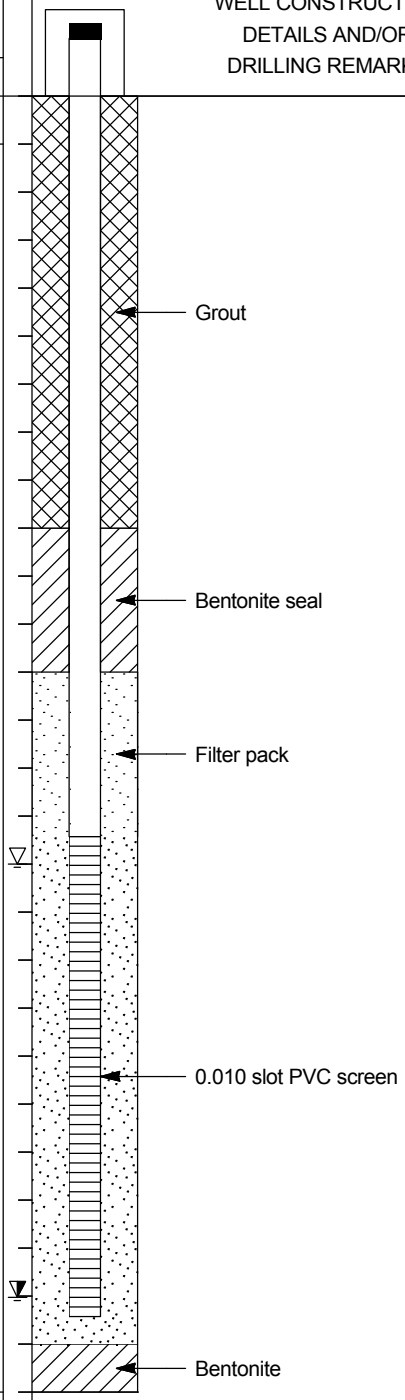


WELL3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas		**Log of Well No. MW-19**
BORING LOCATION: See Site Map		GROUND SURFACE ELEVATION AND DATUM: 199.02
DRILLING CONTRACTOR: Boart Longyear		DATE STARTED: 6/6/08 / DATE FINISHED: 6/6/08
DRILLING METHOD: Sonic		TOTAL DEPTH (ft.): 27.0 / SCREEN INTERVAL (ft.): 10 feet
DRILLING EQUIPMENT: Track-mounted		DEPTH TO WATER ATD: 16 / CASING:
SAMPLING METHOD: Solid Barrel Continuous Sampler		LOGGED BY: Adam Taylor, PG
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG / REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	Sample	Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: 199.02
				0.0	Grass cover. Gravel fill.
					Perched zone. Brownish orange silty clay (CL), soft, moist, medium plasticity.
5					
				0.4	
10					
15					Wet.
				0.4	
20					
25					Turns brown gray with some iron staining, moist.
					Borehole terminated at 27 ft-bgs.

WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS

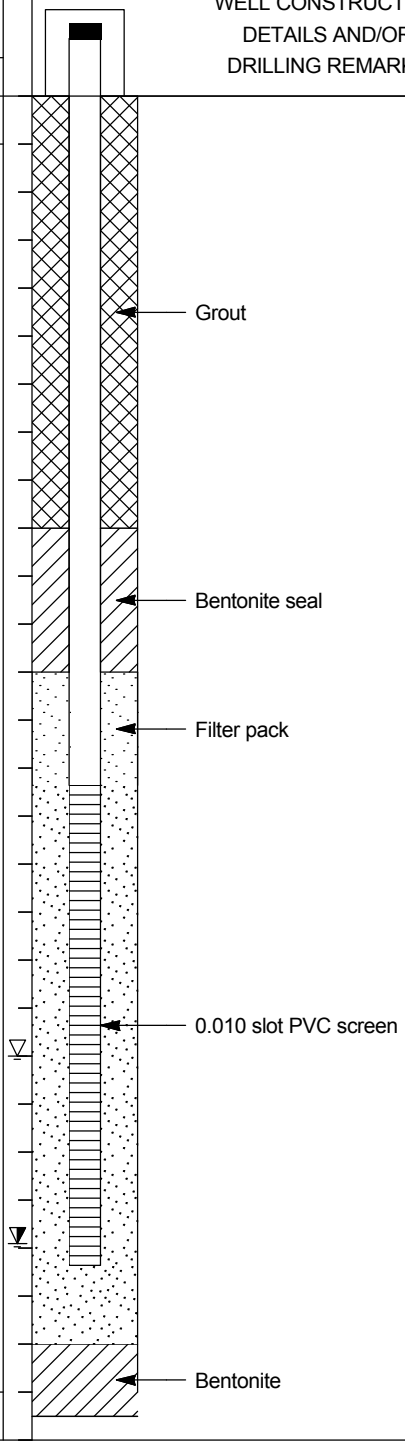


WELL3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas		**Log of Well No. MW-20**	
BORING LOCATION: See Site Map		GROUND SURFACE ELEVATION AND DATUM: 199.21	
DRILLING CONTRACTOR: Boart Longyear		DATE STARTED: 6/4/08	DATE FINISHED: 6/4/08
DRILLING METHOD: Sonic		TOTAL DEPTH (ft.): 27.0	SCREEN INTERVAL (ft.): 10 feet
DRILLING EQUIPMENT: Track-mounted		DEPTH TO WATER ATD: 20	CASING:
SAMPLING METHOD: Solid Barrel Continuous Sampler		LOGGED BY: Adam Taylor, PG	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG	REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: 199.21
				1.5	Grass cover. Gravel fill material.
					Perched zone. Gray brown silt with clay (ML), dry.
5					Orange brown silty clay (CL), dry, low plasticity.
				0.4	
10					Plasticity increases with depth.
15					
				0.2	
					Turns light gray with orange mottle.
20					Wet.
					Some black (organic) mottle.
25					
					Borehole terminated at 27.5 ft-bgs.

WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS

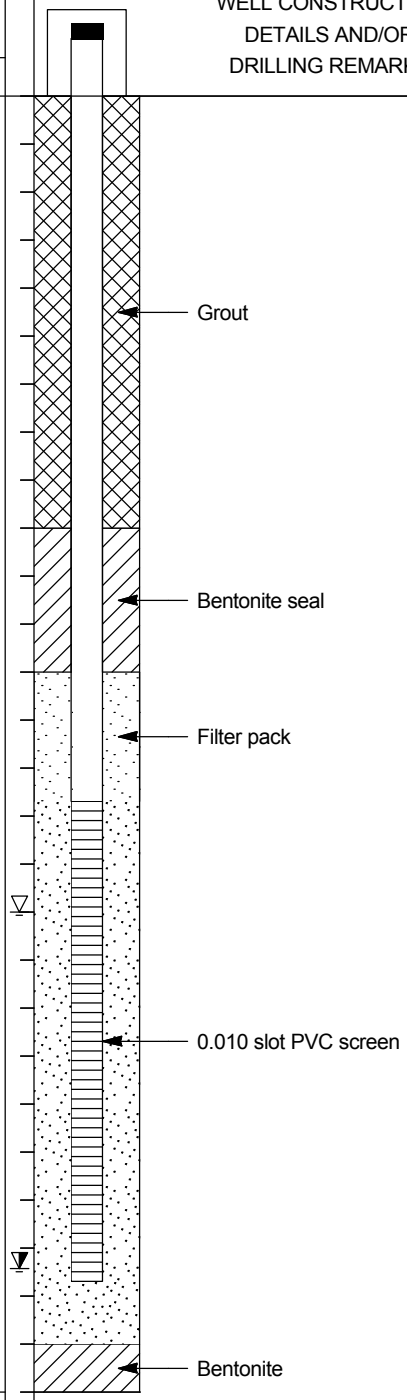


WELL3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas		**Log of Well No. MW-21**
BORING LOCATION: See Site Map		GROUND SURFACE ELEVATION AND DATUM: 197.58
DRILLING CONTRACTOR: Boart Longyear		DATE STARTED: 6/16/08 / DATE FINISHED: 6/16/08
DRILLING METHOD: Sonic		TOTAL DEPTH (ft.): 27.0 / SCREEN INTERVAL (ft.): 10 feet
DRILLING EQUIPMENT: Track-mounted		DEPTH TO WATER ATD: 17 / CASING:
SAMPLING METHOD: Solid Barrel Continuous Sampler		LOGGED BY: Adam Taylor, PG
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG / REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	Sample	Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: 197.58
				0.6	Perched zone. Grass cover, brownish orange silty clay (CL), soft, moist, medium plasticity. Yellow residue visible on exterior portion of sample.
5					
				0.2	
10					
					Some gray mottle.
15					Turns gray green.
				0.0	Wet.
20					Turns tan with dark gray mottle.
25					
					Borehole terminate4d at 27 ft-bgs.

WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS



WELL3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas	**Log of Well No. MW-22**	
BORING LOCATION: See Site Map	GROUND SURFACE ELEVATION AND DATUM: 197.20	
DRILLING CONTRACTOR: Boart Longyear	DATE STARTED: 6/16/08	DATE FINISHED: 6/18/08
DRILLING METHOD: Sonic	TOTAL DEPTH (ft.): 157.0	SCREEN INTERVAL (ft.): MULTI
DRILLING EQUIPMENT: Track-mounted	DEPTH TO WATER ATD: 44	CASING:
SAMPLING METHOD: Solid Barrel Continuous Sampler	LOGGED BY: Adam Taylor, PG	
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG	REG. NO. 2523

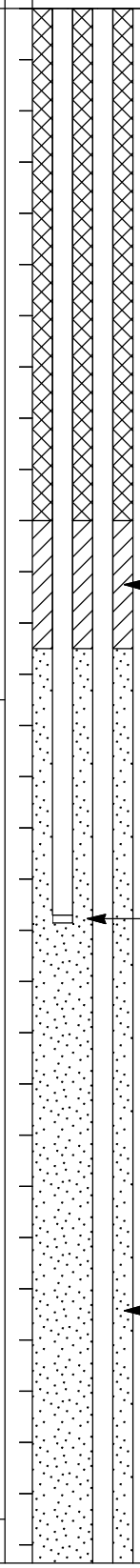
DEPTH (feet)	SAMPLES: Sample No.	Sample	Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: 197.20	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
				.03	Perched zone. Grass cover. Brownish orange silty clay (CL), soft, moist, medium plasticity. Yellow residue visible on exterior portion of sample.	
				.02		
10						
					Some gray mottle.	
					Turns gray green.	
				0.0		
20					Turns tan with dark gray mottle.	
				0.0		
30					Upper alluvial. Dark gray sand clay (SC), soft, moist, medium plasticity.	
					Dark gray sand with some clay (SW), fine to medium grained, poor to moderately sorted, moist to wet.	Grout
				0.2	Turns light brown. No fines.	
40						
					Wet.	
				0.0		
50						

WELL3

PROJECT: Cedar Chemical Corporation Inc.
Helena - West Helena, Arkansas

Log of Well No. MW-22 (cont'd)

DEPTH (feet)	SAMPLES Sample No.	Sample	Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
60				0.0		
70				0.0	Wood fragments, some clay zones less than 6 inches thick.	Bentonite seal
80				0.4	Middle alluvial. Light brown, coarse grained, moderately sorted sand (SW).	
					Some gravel and cobbles ranging from 1 to 5 cm in diameter. Wet.	Screened interval
90				0.2		
100				0.0	More gravel ranging from 1 to 5 mm. Less cobbles than above.	Filter pack
110				0.0	Lower alluvial.	

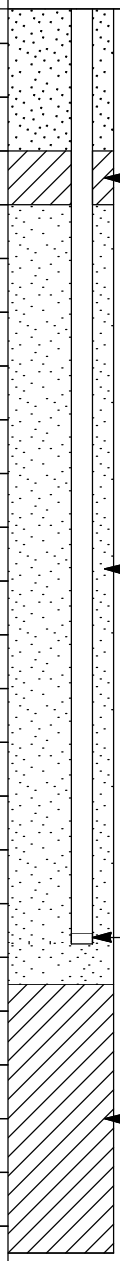


WELL3

PROJECT: Cedar Chemical Corporation Inc.
Helena - West Helena, Arkansas

Log of Well No. MW-22 (cont'd)

DEPTH (feet)	SAMPLES Sample No.	Sample	Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
					Orangish brown, slightly finer grained sand (SW). Cobbles up to 5 cm, wet.	
					Some silt.	Bentonite seal
				0.0		
120						
					Coarse grained sand, more gravel and cobbles.	
				0.0		
130						Filter pack
				0.0		
140						
					Sandy gravel (SW/GW). Medium to fine grained sand.	Screened interval
				0.0	Jackson group. Dark gray brown silty clay with some fine grained sand (CL). Stiff, hard, darker with depth.	
150						Bentonite
					Black organic clay/silt (PT).	
					Borehole terminated at 157 ft-bgs.	
160						
170						

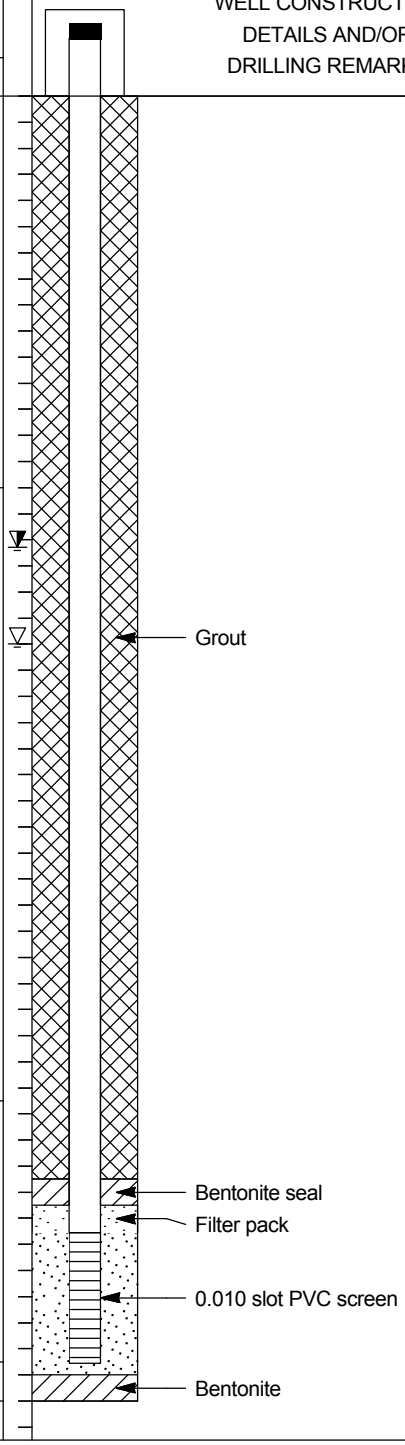


WELL3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas	**Log of Well No. MW-23**
BORING LOCATION: See Site Map	GROUND SURFACE ELEVATION AND DATUM: 197.15
DRILLING CONTRACTOR: Boart Longyear	DATE STARTED: 6/10/08 / DATE FINISHED: 6/11/08
DRILLING METHOD: Sonic	TOTAL DEPTH (ft.): 100.0 / SCREEN INTERVAL (ft.): 10 feet
DRILLING EQUIPMENT: Track-mounted	DEPTH TO WATER ATD: 42 / CASING:
SAMPLING METHOD: Solid Barrel Continuous Sampler	LOGGED BY: Adam Taylor, PG
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG / REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	Sample	Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: 197.15
				0.9	Perched zone. Grass cover. Brownish orange silty clay (CL), soft, moist, medium plastic.
10				0.7	
20				0.4	Turns light gray with orange mottle.
30				0.7	
					Upper alluvial. Brown orange fine grained sand (SW), medium grained, clean, well graded, moist.
40				0.0	Turns medium brown. Turns brown, coarser than above. Moist to wet. Some clay and organic material (wood fragments).
50				0.0	Trace gravel, less than 1 cm in diameter.
60				0.0	No gravel. Finer grained than above with some silt. Darker brown.
70				0.0	Fine grained, gray brown.
80				0.0	Middle alluvial. Medium to coarse grained sand (SW), some gravel up to 2 cm in diameter.
90				0.0	One-foot-thick sandy clay lens. Medium plasticity. Some gravel.
100				0.0	Over drilled, no samples recovered.
					Borehole terminated at 100 ft-bgs.

WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS

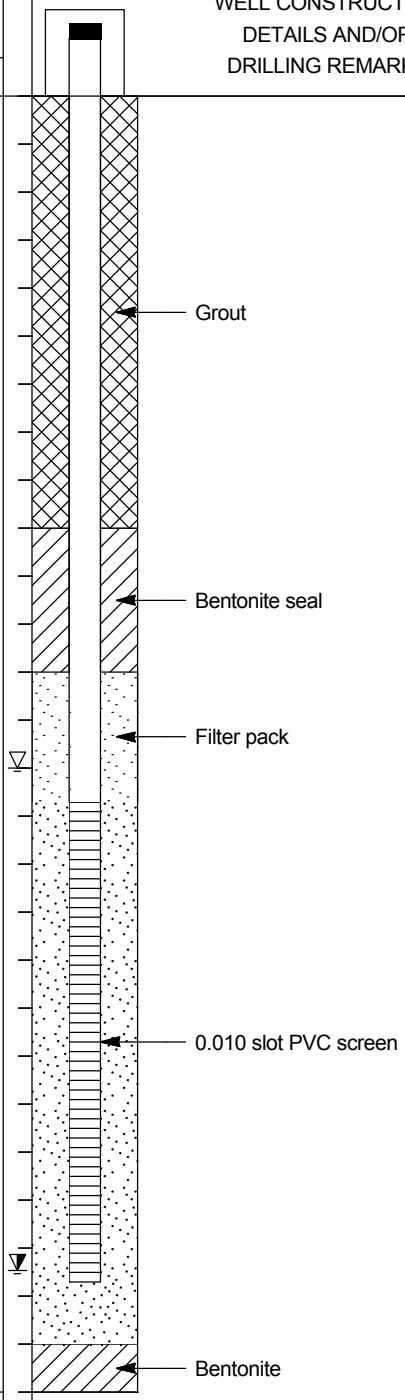


WELL3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas	**Log of Well No. MW-24**	
BORING LOCATION: See Site Map	GROUND SURFACE ELEVATION AND DATUM: 197.86	
DRILLING CONTRACTOR: Boart Longyear	DATE STARTED: 6/9/08	DATE FINISHED: 6/10/08
DRILLING METHOD: Sonic	TOTAL DEPTH (ft.): 27.0	SCREEN INTERVAL (ft.): 10 feet
DRILLING EQUIPMENT: Track-mounted	DEPTH TO WATER ATD: 14	CASING:
SAMPLING METHOD: Solid Barrel Continuous Sampler	LOGGED BY: Adam Taylor, PG	
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG	REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	Sample	Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: 197.86
				0.4	Perched zone. Grass cover. Brownish orange silty clay (CL), soft, moist, medium plasticity.
5					
				0.2	
10					
					Wet.
15					
				0.0	Turns tan.
20					
25					Moist.
					Borehole terminated at 27 ft-bgs.

WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS



WELL3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas	**Log of Well No. MW-25**	
BORING LOCATION: See Site Map	GROUND SURFACE ELEVATION AND DATUM: 197.73	
DRILLING CONTRACTOR: Boart Longyear	DATE STARTED: 6/18/08	DATE FINISHED: 6/19/08
DRILLING METHOD: Sonic	TOTAL DEPTH (ft.): 147.0	SCREEN INTERVAL (ft.): MULTI
DRILLING EQUIPMENT: Track-mounted	DEPTH TO WATER ATD: 46	CASING:
SAMPLING METHOD: Solid Barrel Continuous Sampler	LOGGED BY: Adam Taylor, PG	
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG	REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	Sample	Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: 197.73	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
				0.0	Perched zone. Grass cover. Brownish orange silty clay (CL), soft, moist, medium plasticity. Yellow residue visible on exterior portion of sample.	
				0.0		
10					Some gray mottle.	
					Turns gray green, wet.	
				0.2	Turns light gray with orange mottle.	
20						
				0.0	Upper alluvial. Medium brown sand (SW), fine to medium grained, poor to moderately sorted, moist.	
30						
						Grout
				0.0		
40					Dark gray.	
					Wet.	
				0.0	Light brown to orange brown.	
50						

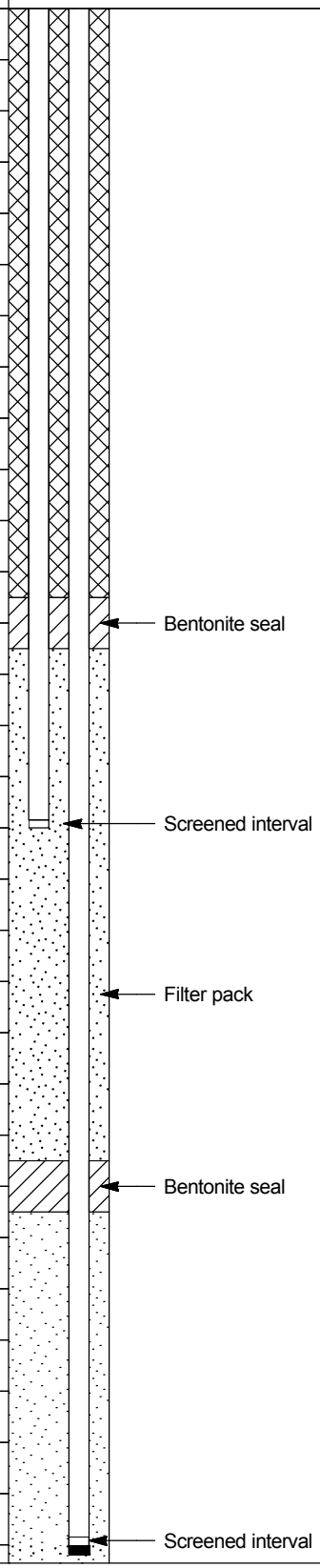
WELL3

PROJECT: Cedar Chemical Corporation Inc.
Helena - West Helena, Arkansas

Log of Well No. MW-25 (cont'd)

DEPTH (feet)	SAMPLES Sample No.	Sample	Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.
				0.0	Brown.
60					
				0.0	Sparse gravel and cobbles up to 5 cm in diameter.
70					
				0.0	Middle alluvial. Brown coarse sand with gravel (SW), poorly sorted, wet.
80					
				0.0	Eight-inch-thick greenish gray clay stringer.
90					Less gravel and cobbles than above.
				0.0	
100					
				0.0	Lower alluvial. Brown orange gravely coarse grained sand (SW/GW) with cobbles and gravel up to 5 cm in diameter. Moderately sorted, wet.
110					

WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS

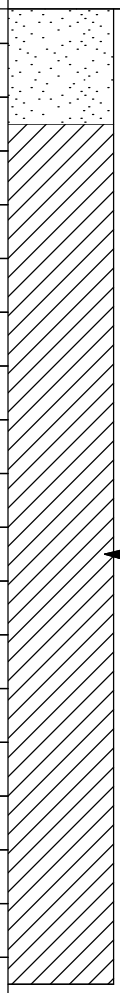


WELL3

PROJECT: Cedar Chemical Corporation Inc.
Helena - West Helena, Arkansas

Log of Well No. MW-25 (cont'd)

DEPTH (feet)	SAMPLES Sample No.	Sample	Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
120				0.0	Turns brown.	
130				0.0	Trace cobbles up to 5 cm in diameter.	Bentonite
140				0.0	Jackson group. Dark gray sandy clay (CL), stiff, moist. Sand percentage decreases with depth.	
150					Borehole terminated at 147 ft-bgs.	
160						
170						

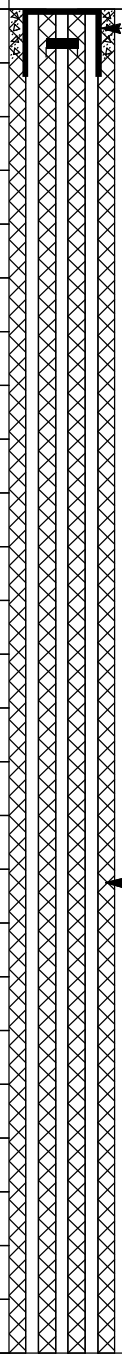


WELL3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas		**Log of Well No. MW-26**	
BORING LOCATION: See Site Map		GROUND SURFACE ELEVATION AND DATUM:	
DRILLING CONTRACTOR: Boart Longyear		DATE STARTED: 10/14/08	DATE FINISHED:
DRILLING METHOD: Sonic		TOTAL DEPTH (ft.): 167.0	SCREEN INTERVAL (ft.): MULTI
DRILLING EQUIPMENT: Track-mounted		DEPTH TO WATER ATD:	CASING:
SAMPLING METHOD: Solid Barrel Continuous Sampler		LOGGED BY: E.Mkandawire	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG	REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation:
				0	Grass cover
					Sandy Clay (SC), yellowish brown (10YR 5/4) mottled with gray (10YR 6/1), moist, pp=1.5 tsf, medium stiff, slightly plastic,
				0	At 7ft - Fine sand content increases with depth
10					
				0	At 17ft - Changes to gray (7.5YR 5/1) mottled with strong brown (7.5YR 5/6), wet, pp=0.5tsf, very soft, very plastic, trace amounts of brown concretions 2mm in diameter.
20					
				0	At 27ft - Trace amounts of medium sized sand grains.
30					Upper alluvial At 29.5 ft - Sand (SC), fine to medium grained, yellowish brown (10YR 5/6) mottled with gray (7.5YR 5/1), moist to wet, loose, subrounded, moderately sorted, low dilatancy.
				0	
40					
				0	At 47ft - Changes to dark gray (7.5YR 4/1) with traces of black (7.5YR 2.5/1), moist to wet, loose,
50					

WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS



WELL3

PROJECT: Cedar Chemical Corporation Inc.
Helena - West Helena, Arkansas

Log of Well No. MW-26 (cont'd)

DEPTH (feet)	SAMPLES Sample No.	Sample	Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
					subrounded, moderately sorted, black concretions 5mm diameter.	
60				0	At 57 ft - Changes to yellowish brown (10YR 5/6), moist, trace amounts of gravel 20mm to 30mm diameter.	
70				0		Bentonite seal
80				0		Screened interval (Ports 1 and 4)
						Bentonite seal
					Middle alluvial. At 82ft -Sand (SW), medium to coarse grained, brown (7.5YR 4/2), moist to wet, loose, subrounded, well sorted, gravel 20mm to 30mm diameter.	
90				0	At 86ft - Clay (CL), dark greenish gray (1GLEY 4/5GY), moist, pp=1.0tsf, medium stiff, very plastic (6 inch lens). At 87ft - Changes to light olive brown (2.5Y 5/6) wet, loose, subrounded, well sorted.	
					At 93.5ft - Changes to gray brown (10YR 5/2), abundant gravel 20mm to 30mm diameter.	Filter pack
100				0		Screened interval (Ports 2 and 5)
110				0	Lower alluvial. Sand (SC), fine to medium grained, gray (7.5YR 5/1), moist to wet, loose, subrounded, moderately sorted,	

WELL3

PROJECT: Cedar Chemical Corporation Inc.
Helena - West Helena, Arkansas

Log of Well No. MW-26 (cont'd)

DEPTH (feet)	SAMPLES Sample No.	Sample	Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
					trace amounts of gravel present throughout core 20mm to 60mm diameter.	
				0	At 117ft - Gravel size changes to 20mm to 40mm diameter.	
120						
				0	At 127ft - Sand (SW) changes to medium to coarse grained.	Bentonite seal
130						
				0		
140						Filter pack
				0		
150						
					At 153.5ft - Abundant gravel 20mm to 40mm diameter (3ft section).	Screened interval (Ports 3,6 and 7)
				0	At 156.5ft - Changes to fine to medium grained, light olive brown (2.5Y 5/6), grains size decreases with depth.	
160						Bentonite
					Jackson Group. At 163ft - Black organic peat (Pt), moist to wet, moisture content decreases with depth and material becomes crumbly.	
170						

WELL3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas		**Log of Well No. OFF-MW-5**
BORING LOCATION: See Site Map		GROUND SURFACE ELEVATION AND DATUM: 192.70
DRILLING CONTRACTOR: Boart Longyear		DATE STARTED: 7/8/05 / DATE FINISHED: 7/9/08
DRILLING METHOD: Sonic		TOTAL DEPTH (ft.): 146.0 / SCREEN INTERVAL (ft.): MULTI
DRILLING EQUIPMENT: Track-mounted		DEPTH TO WATER ATD: 44 / CASING:
SAMPLING METHOD: Solid Barrel Continuous Sampler		LOGGED BY: Adam Taylor, PG
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG / REG. NO. 2523

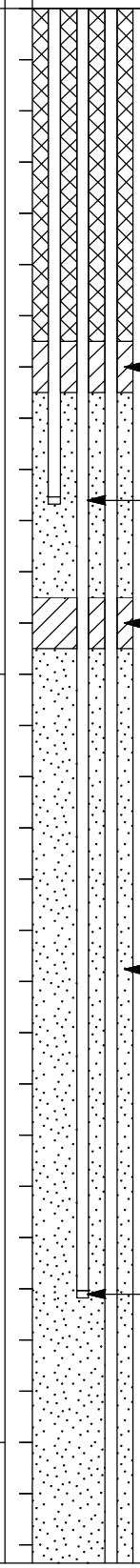
DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: 192.70	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
				0.0	Perched zone. Grass Cover. Brownish orange silty clay (CL), soft, moist, medium plasticity.	
				0.0		
10						
				0.0	Turns medium gray.	
20						
				0.0	Turns dark gray.	
30						Grout
				0.0	Upper alluvial. Dark gray clayey sand (SC), fine grained, poorly sorted, moist. Medium to dark gray sand (SW), moderate to fine grained, well graded, moist.	
40						
					Wet.	
				0.0		
50						

WELL3

PROJECT: Cedar Chemical Corporation Inc.
Helena - West Helena, Arkansas

Log of Well No. OFF-MW-5 (cont'd)

DEPTH (feet)	SAMPLES Sample No.	Sample	Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
				0.0	Turns brown, medium grained.	
60					Trace gravel up to 1 cm in diameter.	Bentonite seal
				0.0	Turns brown gray, medium to coarse grained (more coarse than above), gravel and cobbles up to 3 cm.	Screened interval
70						Bentonite seal
				0.0	Middle alluvial. Brown course grained sand (SW)..	
80						
				0.0	Turns brown gray.	Filter pack
90						
					Some gravel up to 4 cm.	
				0.0	Very coarse grained sand, gravel up to 5 cm.	
100					Three-foot-thick gravel lens.	Screened interval
				0.0	Lower alluvial. Brown very coarse grained sand (SW). More gravel and cobbles than above.	
110						

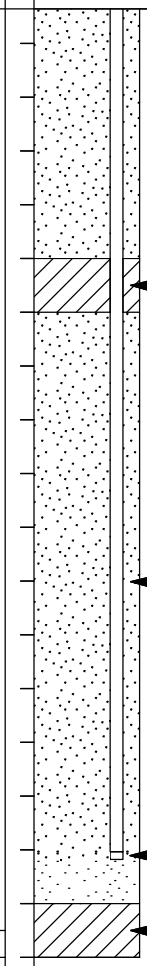


WELL3

PROJECT: Cedar Chemical Corporation Inc.
Helena - West Helena, Arkansas

Log of Well No. OFF-MW-5 (cont'd)

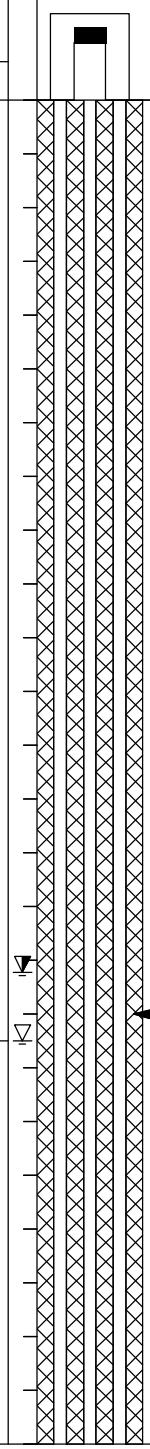
DEPTH (feet)	SAMPLES Sample No.	Sample	Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
				0.0		
120						Bentonite seal
				0.0		
130						Filter pack
				0.0	Finer grained than above (medium).	
140					Very course grained sandy gravel/gravely sand (SW/GW).	Screened interval
					Jackson group. Dark brown clay (CL), stiff, dry, hard.	Bentonite
					Borehole terminated at 146 ft-bgs.	
150						
160						
170						



WELL3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas		**Log of Well No. OFF-MW-6**	
BORING LOCATION: See Site Map		GROUND SURFACE ELEVATION AND DATUM: 192.19	
DRILLING CONTRACTOR: Boart Longyear		DATE STARTED: 7/9/08	DATE FINISHED: 7/11/08
DRILLING METHOD: Sonic		TOTAL DEPTH (ft.): 145.0	SCREEN INTERVAL (ft.): MULTI
DRILLING EQUIPMENT: Truck-mounted		DEPTH TO WATER ATD: 35	CASING:
SAMPLING METHOD: Solid Barrel Continuous Sampler		LOGGED BY: Adam Taylor, PG	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG	REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: 192.19	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
					Perched zone. Grass Cover. Brownish orange silty clay (CL), soft, moist, medium plasticity.	
10						
					Turns medium gray.	
20						
					Turns dark gray.	
30						
					Upper alluvial. Dark gray clayey sand (SC), fine grained, poorly sorted, moist. Medium to dark gray sand (SW), moderate to fine grained, poorly sorted, moist.	Grout
40						
					Wet.	
50						

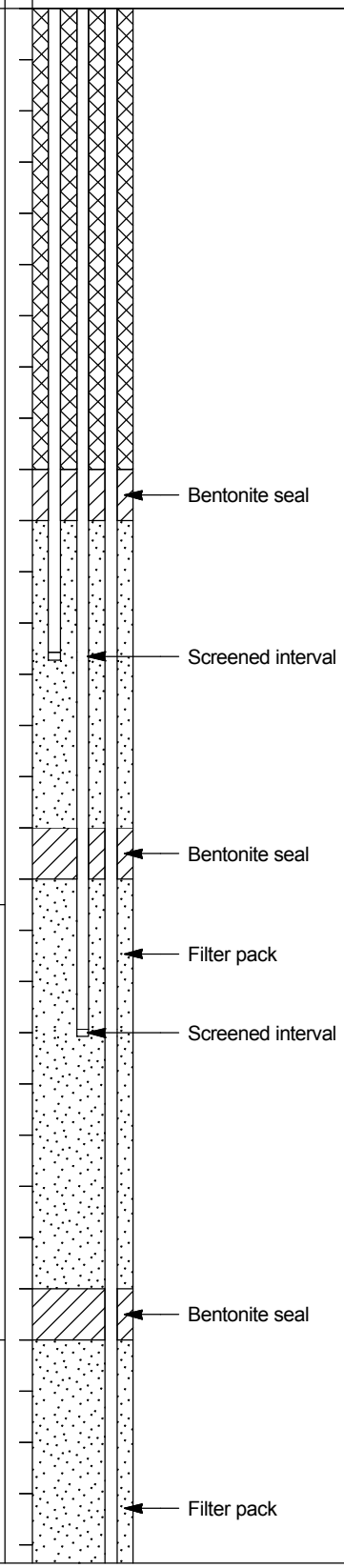


WELL3

PROJECT: Cedar Chemical Corporation Inc.
Helena - West Helena, Arkansas

Log of Well No. OFF-MW-6 (cont'd)

DEPTH (feet)	SAMPLES Sample No.	Sample	Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
					Turns brown, medium grained.	
60						
					Turns brown gray, medium to coarse grained (more coarse than above), gravel and cobbles up to 3 cm.	Bentonite seal
70						
					Cobbles up to 5 cm.	Screened interval
					Turns brown.	
80						
						Bentonite seal
					Middle alluvial. Brown coarse grained sand (SW) with abundant gravel and cobbles up to 6 cm in diameter.	Filter pack
90						Screened interval
					Some gravel.	
100						Bentonite seal
					Lower alluvial. Slightly more coarse grained sand (SW).	
						Filter pack
110						

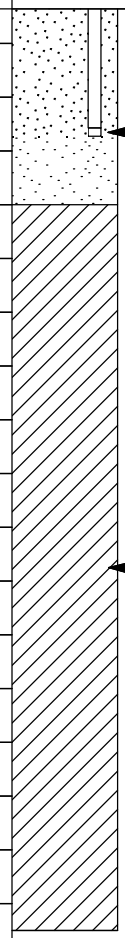


WELL3

PROJECT: Cedar Chemical Corporation Inc.
Helena - West Helena, Arkansas

Log of Well No. OFF-MW-6 (cont'd)

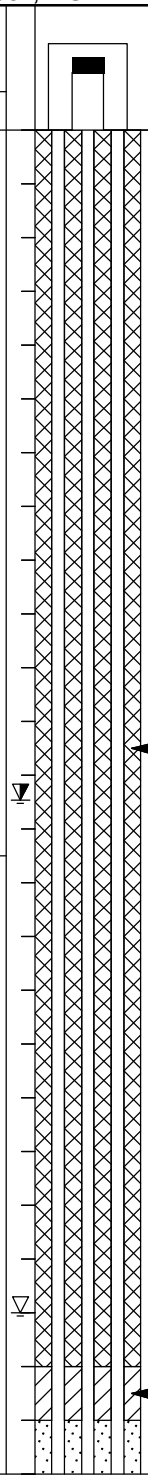
DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
					Cobbles up to 5 cm in diameter.	Screened interval
120						
130						Bentonite
					Jackson group. Dark brown to black peat (PT), hard, stiff, dry.	
140						
150						
160						
170						



WELL3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas	**Log of Well No. OFF-MW-7**
BORING LOCATION: See Site Map	GROUND SURFACE ELEVATION AND DATUM: 183.34
DRILLING CONTRACTOR: Boart Longyear	DATE STARTED: 6/4/08 / DATE FINISHED: 6/5/08
DRILLING METHOD: Sonic	TOTAL DEPTH (ft.): 147.0 / SCREEN INTERVAL (ft.): MULTI
DRILLING EQUIPMENT: Truck-mounted	DEPTH TO WATER ATD: 44 / CASING:
SAMPLING METHOD: Solid Barrel Continuous Sampler	LOGGED BY: Adam Taylor, PG
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG / REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	Sample	Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: 183.34	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
					Perched zone. Grass cover. Brown gray silty clay (CL), low to moderate plasticity, slightly moist, some black specs (organic material).	
10						
					Turns green gray to black with some very fine grained sand.	
20						Grout
					Upper alluvial. Olive gray to brown sand (SW), clean, fine to medium grained, moderately sorted. Moist to wet.	
30						
					Turns medium grained.	
40						
					Wet.	Bentonite seal
50						



WELL3

PROJECT: Cedar Chemical Corporation Inc.
Helena - West Helena, Arkansas

Log of Well No. OFF-MW-7 (cont'd)

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
					Turns brownish gray, coarse grained with some gravel up to 2 cm in diameter. Coarser with depth.	Screened interval
60						
					Middle alluvial. Brown coarse grained sand (SW). Gravel and cobbles up to 5 cm in diameter.	Bentonite seal
70						
						Filter pack
80						
					More gravel than above.	Screened interval
90						
					Lower alluvial. Orangish brown fine to medium grained sand (SW). Coarse grained.	
100						Bentonite seal
						Filter pack
110						

WELL3

PROJECT: Cedar Chemical Corporation Inc.
Helena - West Helena, Arkansas

Log of Well No. OFF-MW-7 (cont'd)

DEPTH (feet)	SAMPLES Sample No.	Sample	Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
					Gravel and cobbles up to 6 cm in diameter.	Screened interval
120					Jackson group. Dark brown to black peat (PT) with some lignite. Dry, brittle.	
					Light gray clay (CH), stiff, dry, high plasticity.	
130					Light gray very fine grained sand (SW). Well graded, moist.	Bentonite
					light gray clayey silty sand (SC), poorly graded, Clay percentage increases with depth.	
140					Light gray silty clay (CH) with some very fine grained sand, stiff, hard, very plastic.	
					Borehole terminated at 147 ft-bgs.	
150						
160						
170						

WELL3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas		**Log of Well No. OFF-MW-8**	
BORING LOCATION: See Site Map		GROUND SURFACE ELEVATION AND DATUM: 189.55	
DRILLING CONTRACTOR: Boart Longyear		DATE STARTED: 6/20/08	DATE FINISHED: 6/21/08
DRILLING METHOD: Sonic		TOTAL DEPTH (ft.): 137.0	SCREEN INTERVAL (ft.): MULTI
DRILLING EQUIPMENT: Track-mounted		DEPTH TO WATER ATD: 55	CASING:
SAMPLING METHOD: Solid Barrel Continuous Sampler		LOGGED BY: Adam Taylor, PG	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG	REG. NO. 2523

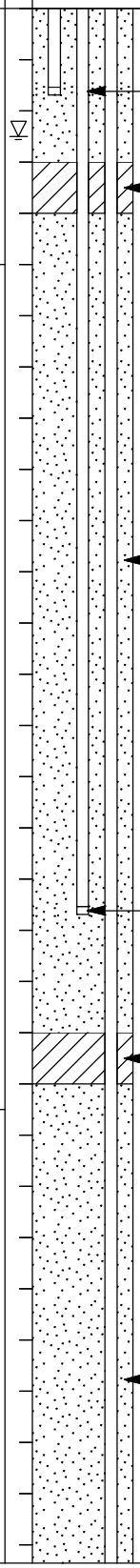
DEPTH (feet)	SAMPLES: Sample No.	Sample	Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: 189.55	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
					Perched zone. Grass cover. Medium gray silty clay (CL), soft, moist, moderately plastic (possibly fill material).	
10					Turns orange brown.	
					Turns gray with more silt.	
20						Grout
					Darker gray.	
					Dark gray sandy clay (SC), moist to wet, sand is fine to medium grained.	
30						
					Upper alluvial. Dark gray sand (SW), fine to medium grained, clean, moderately sorted, moist.	
40						
					Coarser than above.	
50						Bentonite seal

WELL3

PROJECT: Cedar Chemical Corporation Inc.
Helena - West Helena, Arkansas

Log of Well No. OFF-MW-8 (cont'd)

DEPTH (feet)	SAMPLES Sample No.	Sample	Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
					Trace gravel up to 2 cm in diameter. Wood fragments.	Screened interval Bentonite seal
60					Middle alluvial. Brown coarse grained sand (SW), moderately sorted, clean, wet. Some gravel up to 5 cm in diameter. Sparse gravel and cobbles up to 5 cm in diameter.	
70						Filter pack
80						Screened interval
					More gravel and cobbles.	
90						Bentonite seal
					Lower alluvial. Brown coarse grained sand (SW). Some gravel and cobbles up to 4 cm in diameter. Some gravel up to 6 cm.	
100						Filter pack
110						

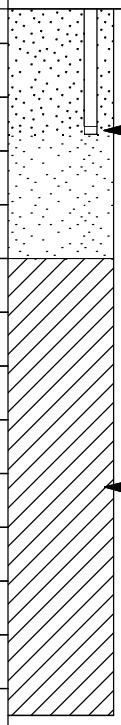


WELL3

PROJECT: Cedar Chemical Corporation Inc.
Helena - West Helena, Arkansas

Log of Well No. OFF-MW-8 (cont'd)

DEPTH (feet)	SAMPLES Sample No.	Sample	Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
					More gravel and cobbles than above.	Screened interval
					Medium grained sand (SW), moderately sorted. Wet.	
120						
					Finer grained than above.	Bentonite
130						
					Jackson group.	
					Black organic peat (PT), moist, brittle.	
					Borehole terminated at 137 ft-bgs.	
140						
150						
160						
170						



WELL3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas		**Log of Well No. OFF-MW-9**	
BORING LOCATION: See Site Map		GROUND SURFACE ELEVATION AND DATUM:	
DRILLING CONTRACTOR: Boart Longyear		DATE STARTED: 10/8/08	DATE FINISHED:
DRILLING METHOD: Sonic		TOTAL DEPTH (ft.): 157.0	SCREEN INTERVAL (ft.): MULTI
DRILLING EQUIPMENT: Track-mounted		DEPTH TO WATER ATD:	CASING:
SAMPLING METHOD: Solid Barrel Continuous Sampler		LOGGED BY: E.Mkandawire	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG	REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation:	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
				0	Asphalt	Well Vault
					Silty Clay (CL), brown (7.5YR 5/3) mottled with strong brown (7.5YR 5/6), moist, pp=1.0 tsf, soft, very plastic, trace amounts of brown concretions. At 2.5 ft - Changes to gray (7.5YR 5/1) mottled with brown (7.5YR 5/3). At 7.0 ft - Changes to moist to wet, pp=0.5tsf, very soft.	
				0		
10						
				0		
20					At 22.5 ft - Changes to dark greenish gray (2GLEY 4/10G), pp=0.25 tsf, very soft, high plasticity, silt content increases with depth.	
				0	At 27 ft - Contains fine grained sand with depth.	Grout
30						
					Upper alluvial. At 33 ft Sand (SC), very fine grained, dark greenish gray (2GLEY 4/10G), wet to saturated, poorly sorted, high dilatancy.	
				0		
40						
					At 42 ft - Changes to fine to medium grained sand, gray (1GLEY 4/10G), moist to wet, loose, subrounded, moderately sorted.	
				0		
50						

WELL3

PROJECT: Cedar Chemical Corporation Inc.
Helena - West Helena, Arkansas

Log of Well No. OFF-MW-9 (cont'd)

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
60				0	At 60 ft - Changes to medium to coarse grained sand, gray (7.5YR 5/1), trace amounts of gravel 20mm to 40mm diameter.	Bentonite seal
70				0		Screened interval (Ports 1 and 4) Bentonite seal
80				0	Middle alluvial. At 76ft Sand (SW), medium to coarse grained, brown (7.54YR 4/2), moist to wet, subrounded, well sorted, abundant gravel 20mm to 40mm diameter. At 77ft - Presence of gravel 20mm to 60 mm diameter and cobbles 60 mm to 80mm diameter spread evenly throughout core.	Filter pack
90				0		
100				0	At 96 ft - Abundant gravel 20mm to 40mm diameter.	Screened interval (Ports 2 and 5) Bentonite seal
110				0	Lower alluvial. At 104ft Sand (SC), fine to medium grained, brown (7.5YR 4/2), moist to wet, loose, subrounded, moderately sorted, gravel spread throughout core 20mm to 30mm diameter.	

WELL3

PROJECT: Cedar Chemical Corporation Inc.
Helena - West Helena, Arkansas

Log of Well No. OFF-MW-9 (cont'd)

DEPTH (feet)	SAMPLES Sample No.	Sample	Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
					At 107ft - Sand (SW) increases coarseness with depth, gravel 20mm to 60mm diameter and cobbles 60mm to 80mm diameter.	
				0	At 117ft - Becomes well sorted.	
120					At 123ft - Abundant gravel 20mm to 40mm diameter.	Filter pack
				0		
130						
				0		
140						Screened interval (Ports 3,6 and 7)
					At 144ft - Abundant gravel 20mm to 40mm diameter increasing with depth to 80mm diameter cobbles.	
				0	Jackson Group. At 146ft - Black organic peat (Pt), moist to wet, moisture content decreases with depth and material becomes crumbly.	
150					At 151ft - Sandy Clay (CL), gray (7.5YR 5/1), moist, pp=4.0 tsf, hard, slightly plastic, trace amounts of peat, fine to medium grained sand.	Bentonite
					At 152ft - Clayey Sand (SC), fine to medium grained, gray (7.5YR 5/1), moist, crumbly.	
160						
170						

WELL3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas		**Log of Well No. OFF-MW-10**	
BORING LOCATION: See Site Map		GROUND SURFACE ELEVATION AND DATUM:	
DRILLING CONTRACTOR: Boart Longyear		DATE STARTED:	DATE FINISHED:
DRILLING METHOD: Sonic		TOTAL DEPTH (ft.): 147.0	SCREEN INTERVAL (ft.): MULTI
DRILLING EQUIPMENT: Track-mounted		DEPTH TO WATER ATD:	CASING:
SAMPLING METHOD: Solid Barrel Continuous Sampler		LOGGED BY: E.Mkandawire	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG	REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation:	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
				0	Asphalt	Well Vault
					Silty Clay (ML), gray (7.5YR 6/1) mottled with brown (7.5YR 5/4), moist, pp=1.0tsf, soft, very plastic. At 3.5 ft - Sandy Clay (CL) dark gray (7.5YR 4/1) mottled with brown (7.5YR 4/1), moist, pp=1.5tsf, medium stiff, plastic.	
10					At 9 ft - Sand content increases with depth.	
				0		
20					At 20 ft - Becomes dark greenish gray (1 GLEY 4/10Y), moist to wet, pp=0.5tsf, very soft, slightly plastic, fine grained sand, poorly sorted, high dilatancy.	Grout
				0		
30					Upper alluvium. At 28 ft Sand (SC),very fine to fine grained, dark greenish gray (1 GLEY 4/10Y), moist to wet, moderately sorted, high dilatancy.	
				0		
40					At 39.5 ft - Changes to fine to medium grained, brown (7.5YR 4/2), moist, loose, subrounded, trace amounts of gravel 20 mm diameters, well sorted.	
				0		Bentonite seal
50						

WELL3

PROJECT: Cedar Chemical Corporation Inc.
Helena - West Helena, Arkansas

Log of Well No. OFF-MW-10 (cont'd)

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
					At 53.5 ft - Changes to medium to coarse grained sand, trace amounts of wood fragments for approximately 12 inches.	Screened interval (Ports 1 and 4) Bentonite seal
				0	Middle alluvium. At 57 ft - Sand (SW), medium to coarse grained, brown (7.5YR 4/3), moist, loose, subrounded, well sorted,	
60						
				0	At 66.5 ft - Wood fragments.	
70					At 69 ft - Cobbles 60 mm to 80 mm diameter.	Filter pack
					At 72 ft - Trace amounts of wood fragments.	
				0		
80						
					At 82.5 ft - Abundant gravel (SW) in a 6 inch layer ranging in size from 20 mm to 50 mm.	Screened interval (Ports 2 and 5)
				0	Lower alluvium. At 87 ft Sand (SW), medium to coarse grained, brown (7.5YR 4/3), moist to wet, loose, subrounded, well sorted, gravel spread evenly throughout core 20mm to 50mm diameter.	Bentonite seal
90						
				0	At 97 ft - Changes to brown (7.5YR 5/2.	
100						
					At 105 ft - Abundant gravel for a 2 ft interval.	
				0		
110						

WELL3

PROJECT: Cedar Chemical Corporation Inc.
Helena - West Helena, Arkansas

Log of Well No. OFF-MW-10 (cont'd)

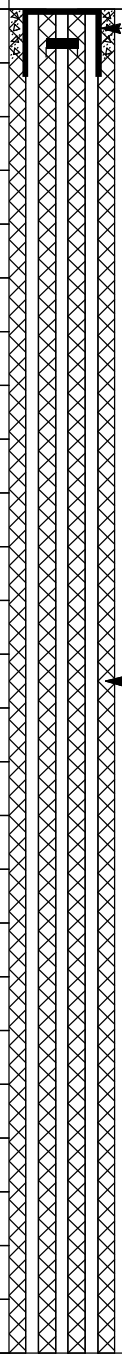
DEPTH (feet)	SAMPLES Sample No.	Sample	Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
					At 115 ft - Abundant gravel 20mm to 40mm for a 2 ft interval.	Filter pack
				0		
120					At 123 ft - Grain size changes to fine to medium, moderately sorted subrounded, grain size gradation with depth from medium to fine.	
				0		
130					At 135 ft - Abundant gravel 20mm to 40mm diameter.	Screened interval (Ports 3,6 and 7)
				0		
140					Jackson Group. At 139ft Black organic peat (Pt), brittle/crumbly, moist.	Bentonite
					At 142.5 ft Clay (CL), gray (7.5YR 5/1), moist, pp=4.0 tsf, hard, slightly plastic.	
					At 144 ft Sandy Clay (CL), gray (7.5YR 5/1), moist, pp=3.5 tsf, crumbly, slightly plastic.	
150						
160						
170						

WELL3

PROJECT: Cedar Chemical Corporation Inc. Helena - West Helena, Arkansas		**Log of Well No. OFF-MW-11**
BORING LOCATION: See Site Map		GROUND SURFACE ELEVATION AND DATUM:
DRILLING CONTRACTOR: Boart Longyear		DATE STARTED: / DATE FINISHED:
DRILLING METHOD: Sonic		TOTAL DEPTH (ft.): 147.0 / SCREEN INTERVAL (ft.): MULTI
DRILLING EQUIPMENT: Track-mounted		DEPTH TO WATER ATD: / CASING:
SAMPLING METHOD: Solid Barrel Continuous Sampler		LOGGED BY: E.Mkandawire
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: Kelly Beck, PG / REG. NO. 2523

DEPTH (feet)	SAMPLES: Sample No.	Sample	Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation:
				0	Asphalt
					Clayey Silt (ML), brown (10YR 5/4), moist to wet, crumbly, pp=1.5 tsf, medium stiff.
				0	At 7ft - Wet to saturated.
10					
				0	At 16.5 ft - Turns to very dark gray (1 GLEY 3/1), saturated, 1.5 tsf to 2.0 tsf, stiff.
20					
				0	Upper alluvial. At 27ft Sand (SC), very dark gray (1 GLEY 3/1), medium grained, saturated, poorly sorted, subrounded.
30					
					At 35ft - Becomes dry to moist
				0	At 37ft - Changes to fine to medium grained, moderately sorted, moist, subrounded, loose
40					
				0.1	At 47 ft - Changes to gray (7.5YR 5/1), moist to wet, coarse to medium grained
50					

WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS



WELL3

PROJECT: Cedar Chemical Corporation Inc.
Helena - West Helena, Arkansas

Log of Well No. OFF-MW-11 (cont'd)

DEPTH (feet)	SAMPLES Sample No.	Sample	Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
					At 51.5 ft - Changes to very dark gray (7.5YR 3/1), wood fragments for 0.5ft. At 53ft - Changes to very dark gray (7.5YR 3/1), wood fragments, trace amounts of 2mm gravel for 1 ft.	Bentonite seal
				0		Screened interval (Ports 1 and 4)
60					Middle alluvial. At 60ft Sand (SC), brown (7.5YR 5/3), medium to coarse grained, moist, loose, subrounded, well sorted, trace amounts of pebbles and cobbles 20mm to 80mm diameter.	Bentonite seal
				0	At 67ft - Changes to wet.	
70						Filter pack
				0		
80						Screened interval (Ports 2 and 5)
				0	Lower alluvial. At 87ft - Clay lens 0.2 feet thick, very dark gray (7.5YR 4/1), moist, pp= 1.0 tsf, soft, plastic. At 87.2ft - Sand (SW) (, brown (7.5YR 5/3), moist, loose, subrounded, moderately sorted, gravel 50mm diameter. At 93.5ft - Changes to fine to medium grained and gets finer with depth.	Bentonite seal
90						
				0	At 97ft - Changes to medium to coarse grained, gravel/cobbles 80mm diameter.	
100						
				0	At 107ft - Changes to a fine to medium grained sand, trace amounts of gravel 20 mm diameter.	
110						

WELL3

PROJECT: Cedar Chemical Corporation Inc.
Helena - West Helena, Arkansas

Log of Well No. OFF-MW-11 (cont'd)

DEPTH (feet)	SAMPLES Sample No.	Sample	Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
120						Filter pack
				0		
130						Screened interval (Ports 3,6 and 7)
					Jackson Group. At 135ft - Black organic peat (Pt), moist, brittle.	
				0		
140						Bentonite
					At 142ft- Clay (CH), gray (7.5YR 5/1), moist, pp=3.5tsf, very stiff, very plastic.	
					At 144 ft - Sandy Clay (CL), gray (7.5YR 5/1), moist, pp= 2.0tsf, stiff, slightly plastic.	
150						
160						
170						

WELL3

APPENDIX C

CPT Logs

APPLIED RESEARCH ASSOCIATES, INC.

April 21, 2008

Kelly Beck, P.G.
Geomatrix, Inc.
5725 Highway 290 West
Austin, TX 78735

Dear Ms. Beck:

Applied Research Associates, Inc. (ARA) performed 18 cone penetrometer tests (CPT) for the Cedar Chemical Geotechnical Investigation in West Helena, AR. The tests were conducted from March 26, 2008 to April 1, 2008.

The report for this work consists of this letter, a penetration summary table, and individual CPT plots displaying tip (COR), sleeve and pore pressure data, along with a friction ratio based soil classification.

The CD included with this report contains this letter, the penetration summary table, PDF versions of the individual CPT plots and the raw CPT data collected in the field (in ASCII format).

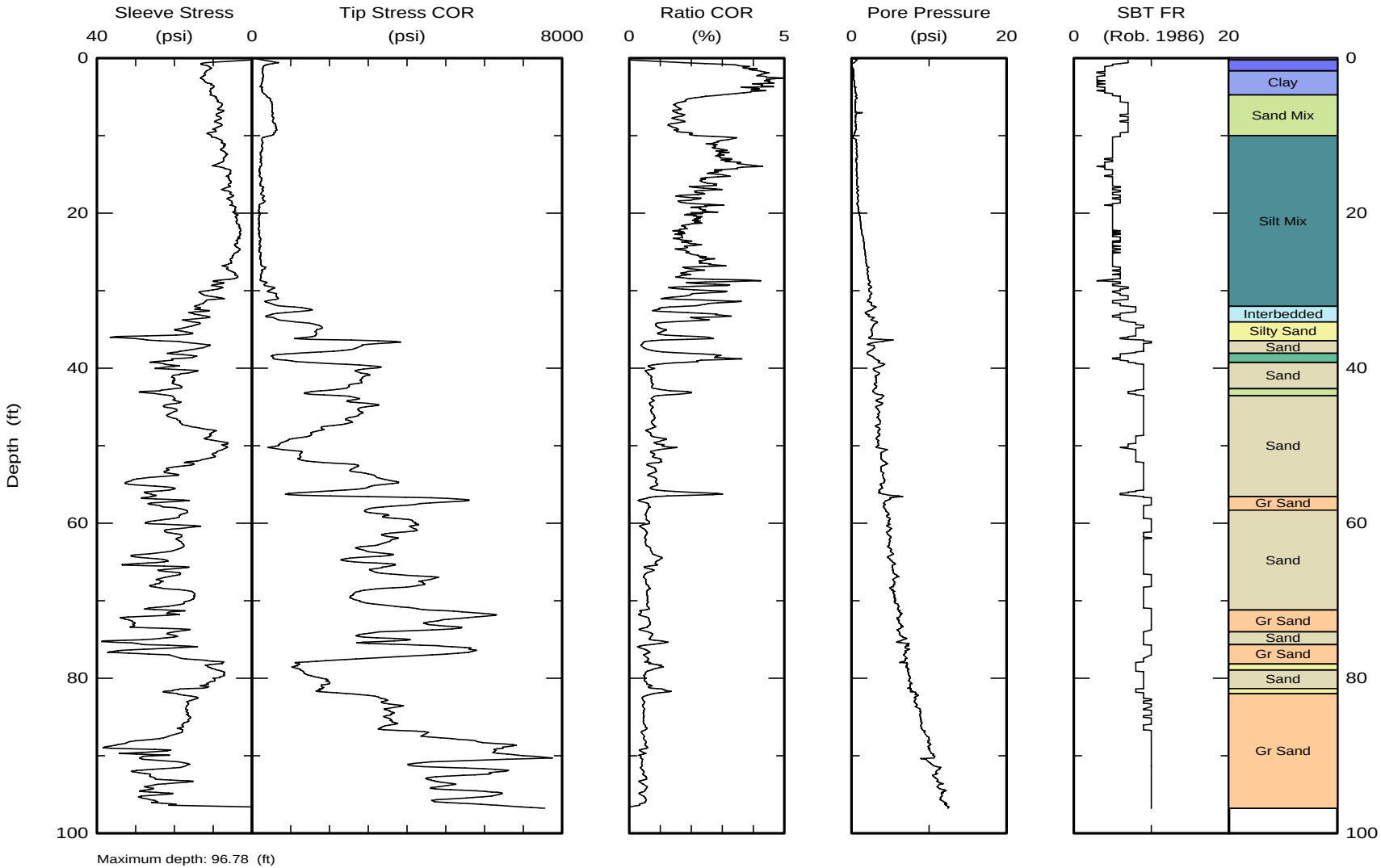
Please feel free to call us if you have any questions regarding this report.

Sincerely,

Neal Van Wyck
Senior Scientist

NEW ENGLAND DIVISION
415 WATERMAN ROAD ■ SOUTH ROYALTON, VT 05068
(802) 763-8348 ■ FAX (802) 763-8283 ■ WWW.ARA.COM

Applied Research Associates, Inc. South Royalton, VT 05068 802-763-8348 cpt@ned.ara.com www.ara.com	Northing: Easting: Elevation:	Date: 31/Mar/2008 Test ID: CPT-01 Project: 18472
	Client: GEOMATRIX Job Site: CEDAR CHEMICAL	



Maximum depth: 96.78 (ft)

Applied Research Associates, Inc. South Royalton, VT 05068 802-763-8348 cpt@ned.ara.com www.ara.com	Northing: Easting: Elevation:	Date: 31/Mar/2008 Test ID: CPT-02 Project: 18472
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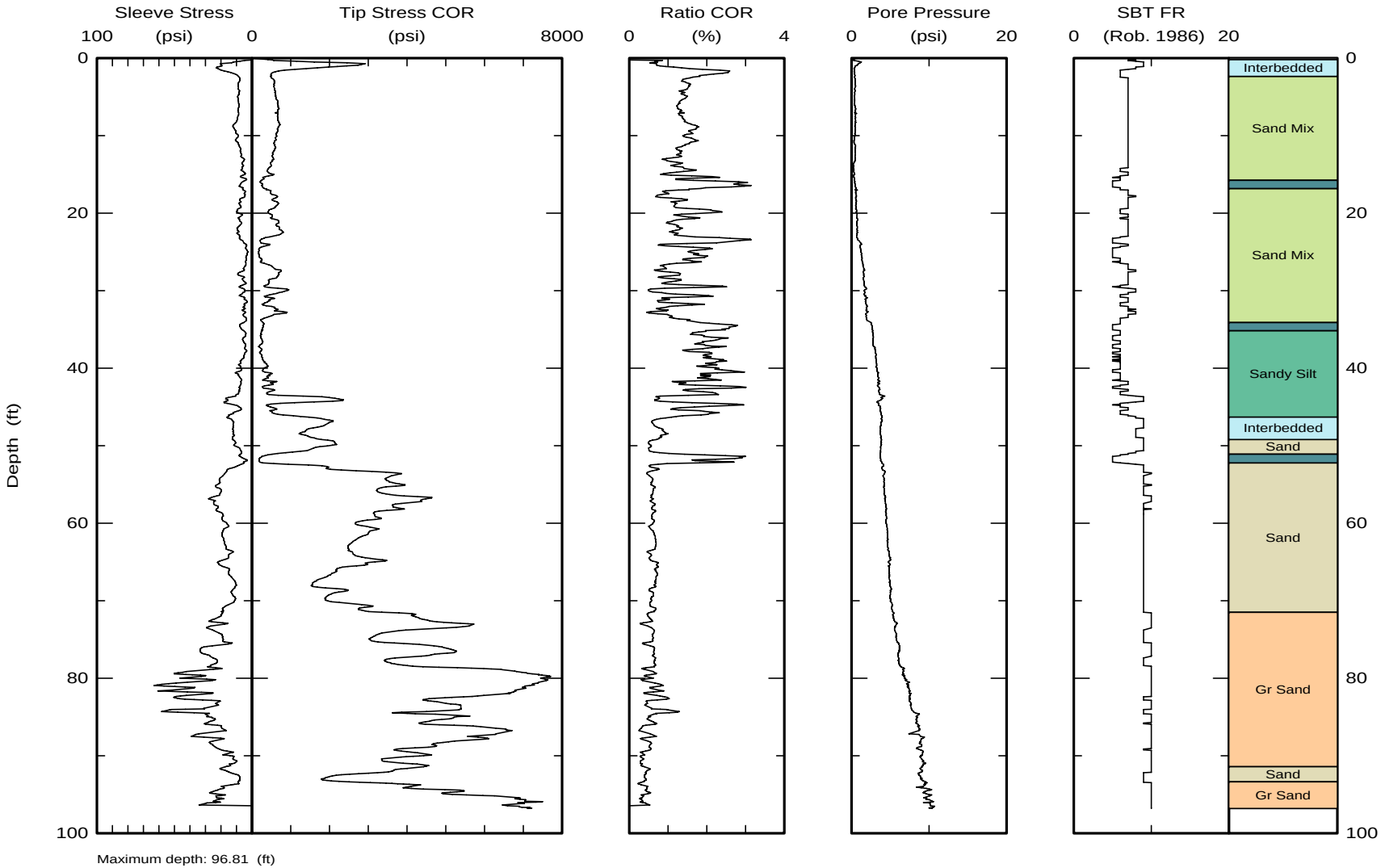
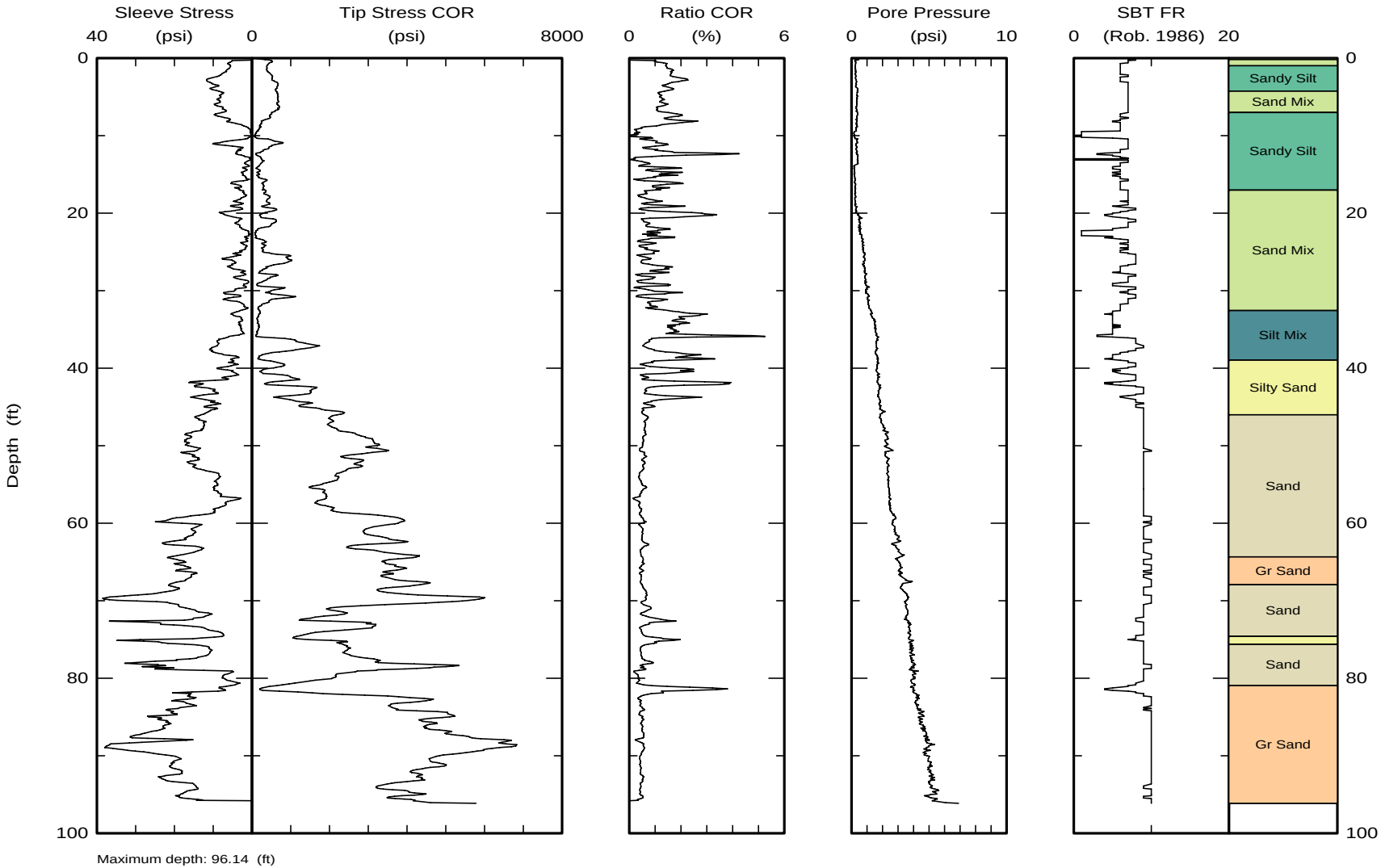
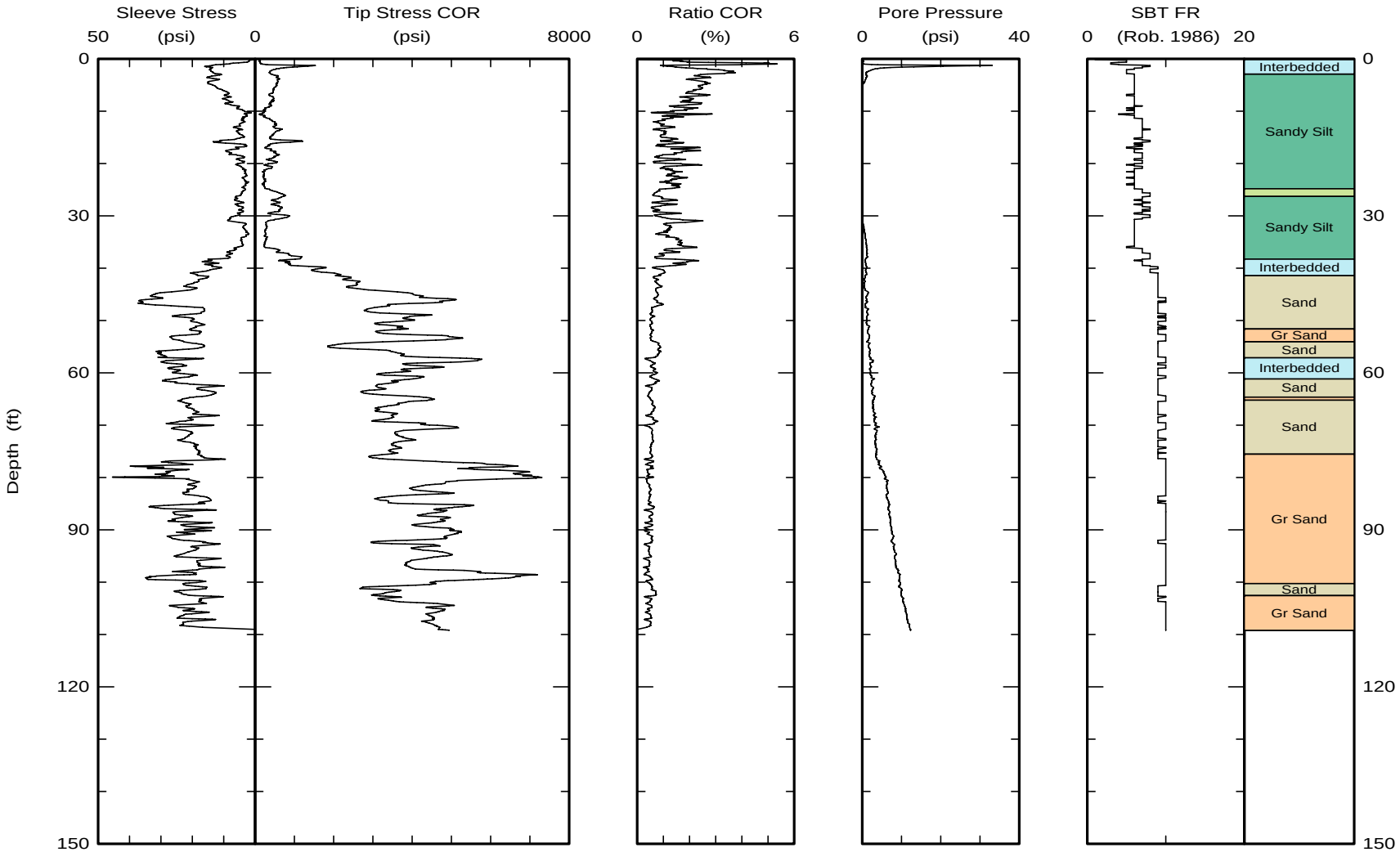


Applied Research Associates, Inc. South Royalton, VT 05068 802-763-8348 cpt@ned.ara.com www.ara.com	Northing: Easting: Elevation:	Date: 31/Mar/2008 Test ID: CPT-03 Project: 18472
	Client: GEOMATRIX Job Site: CEDAR CHEMICAL	



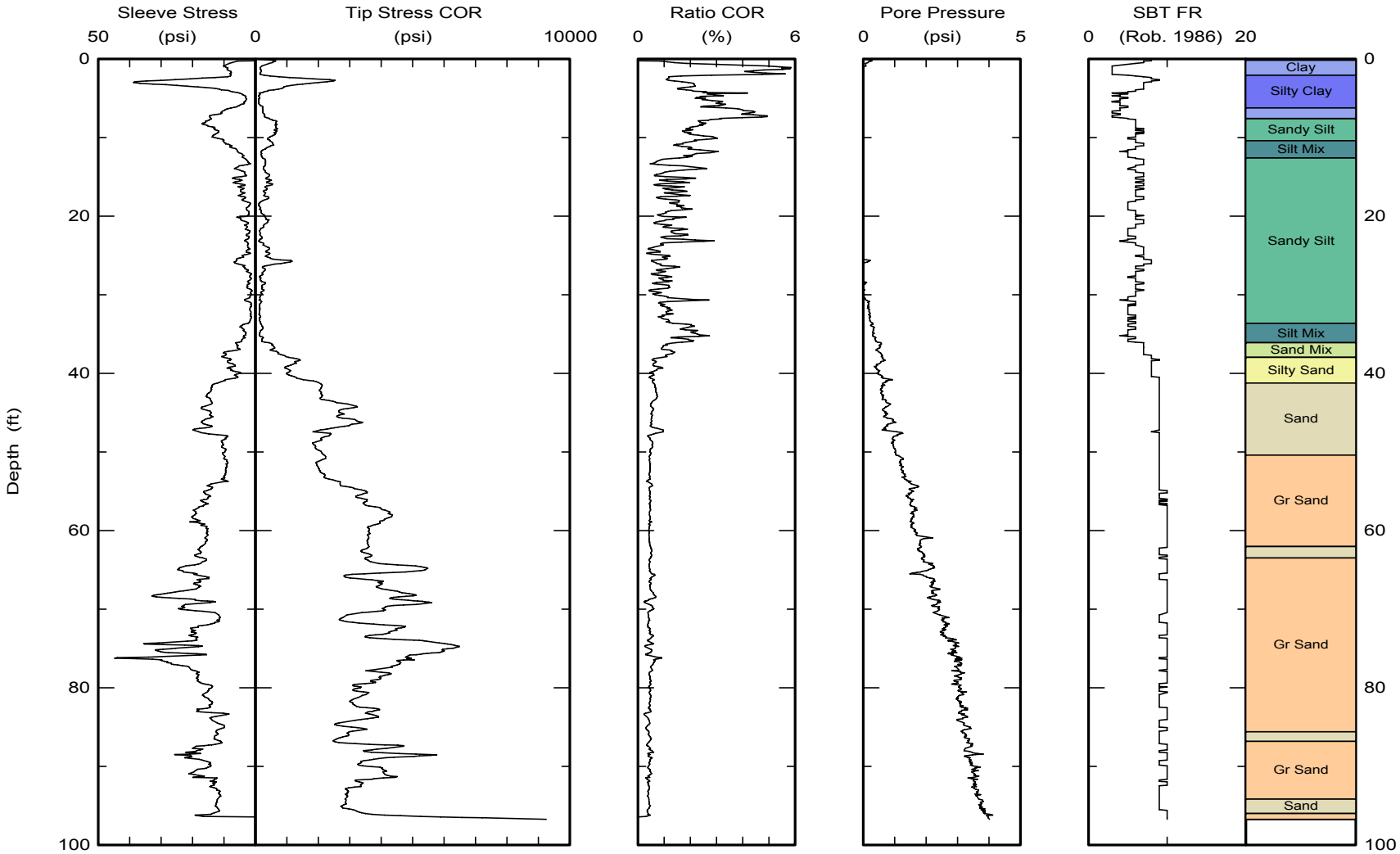
Maximum depth: 96.14 (ft)

Applied Research Associates, Inc. South Royalton, VT 05068 802-763-8348 cpt@ned.ara.com www.ara.com	Northing: Easting: Elevation:	Date: 01/Apr/2008 Test ID: CPT-04 Project: 18472
	Client: GEOMATRIX Job Site: CEDAR CHEMICAL	



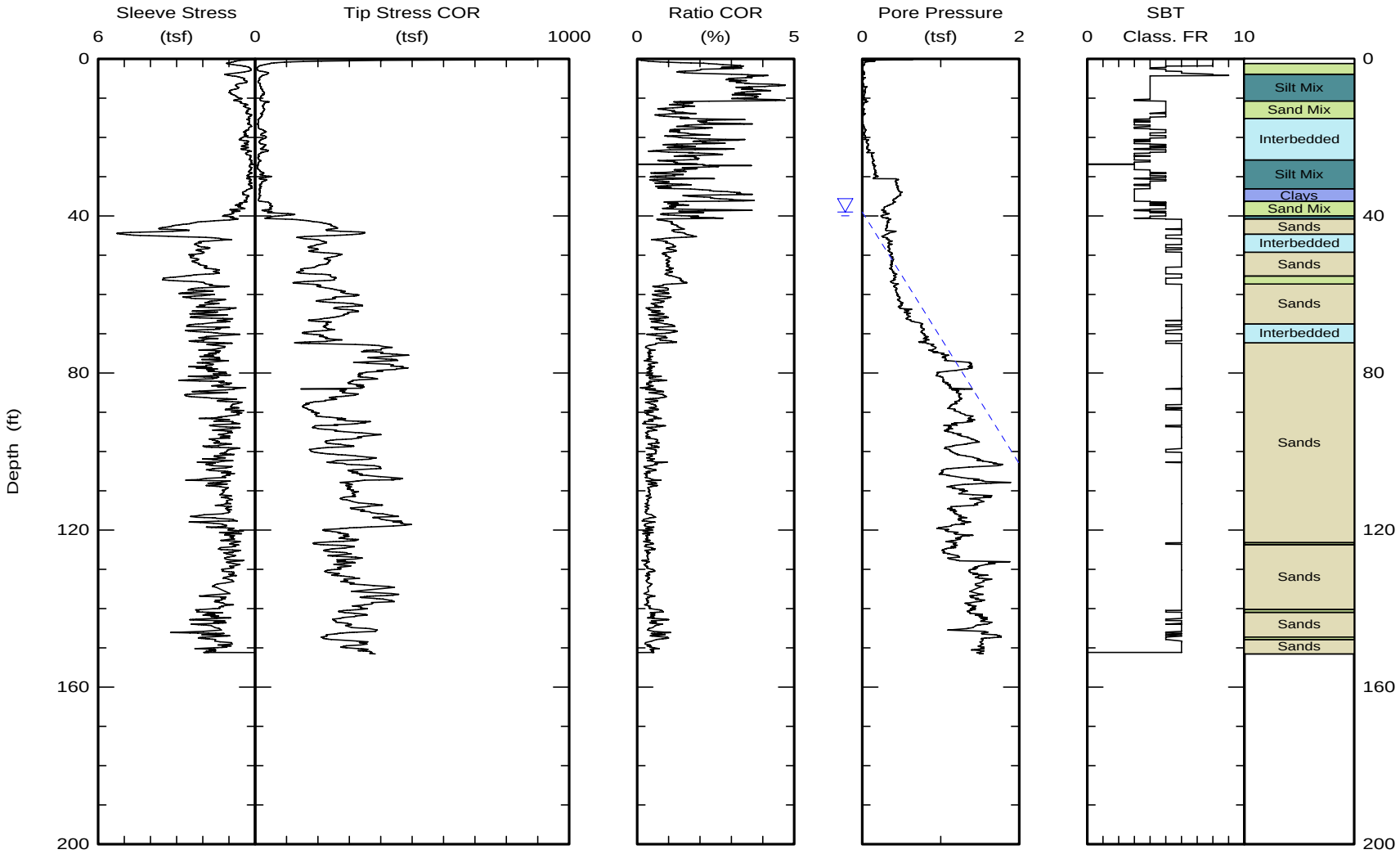
Maximum depth: 109.21 (ft)

Applied Research Associates South Royalton, VT 05068 802-763-8348 cpt@ned.ara.com www.ara.com	Northing: Easting: Elevation:	Date: 01/Apr/2008 Test ID: CPT-05 Project: 18472
	Client: GEOMATRIX Site: CEDAR CHEMICAL	



Maximum depth: 96.75 (ft)

Applied Research Associates, Inc. South Royalton, VT 05068 802-763-8348 cpt@ned.ara.com www.ara.com	Northing: Easting: Elevation:	Date: 26/Mar/2008 Test ID: CPT-06 Project: 18472
	Client: GEOMATRIX Job Site: CEDAR CHEMICAL	

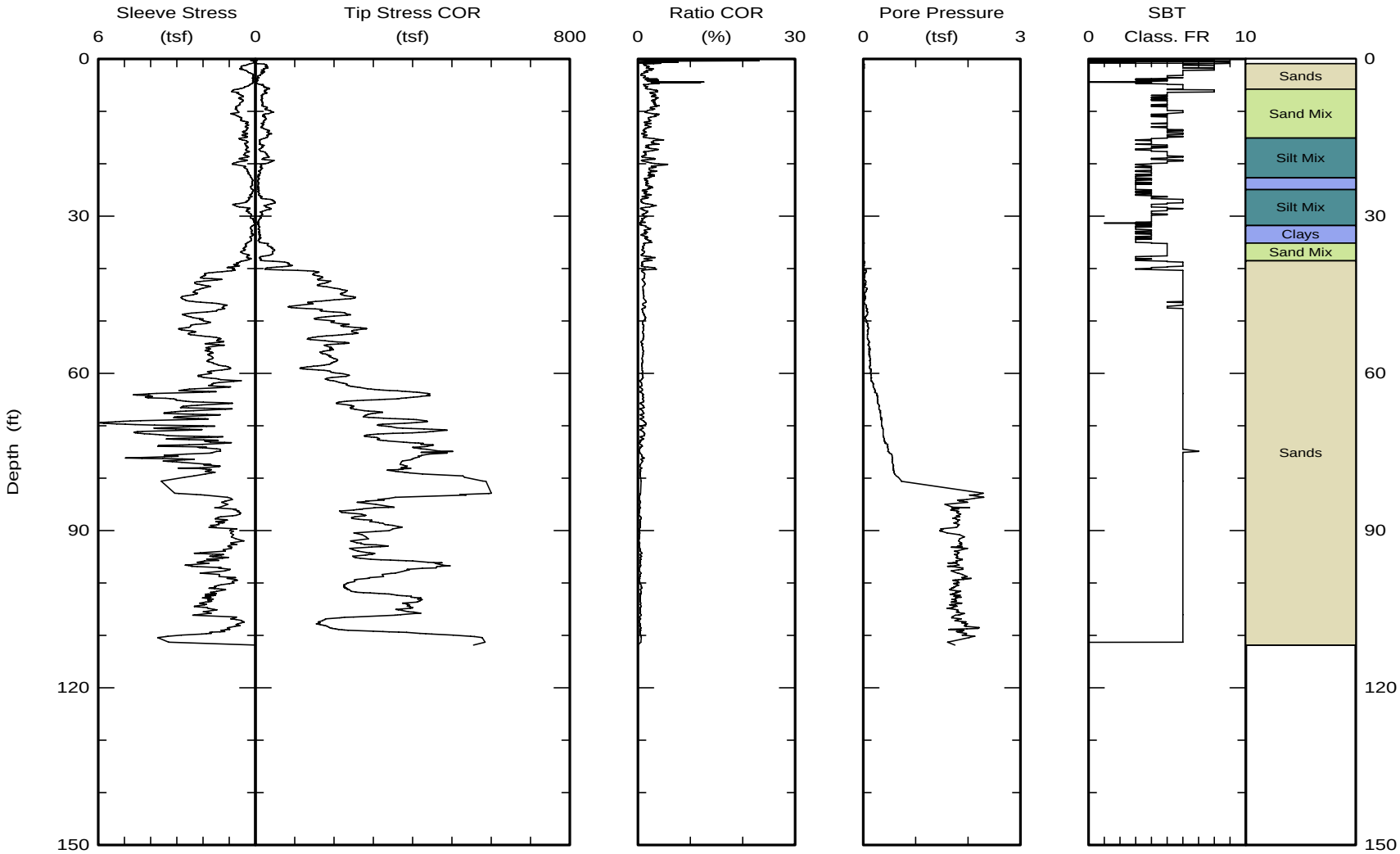


Maximum depth: 151.55 (ft)

Class FR: Friction Ratio Classification (Ref: Robertson 1990)

Estimated Phreatic Surface

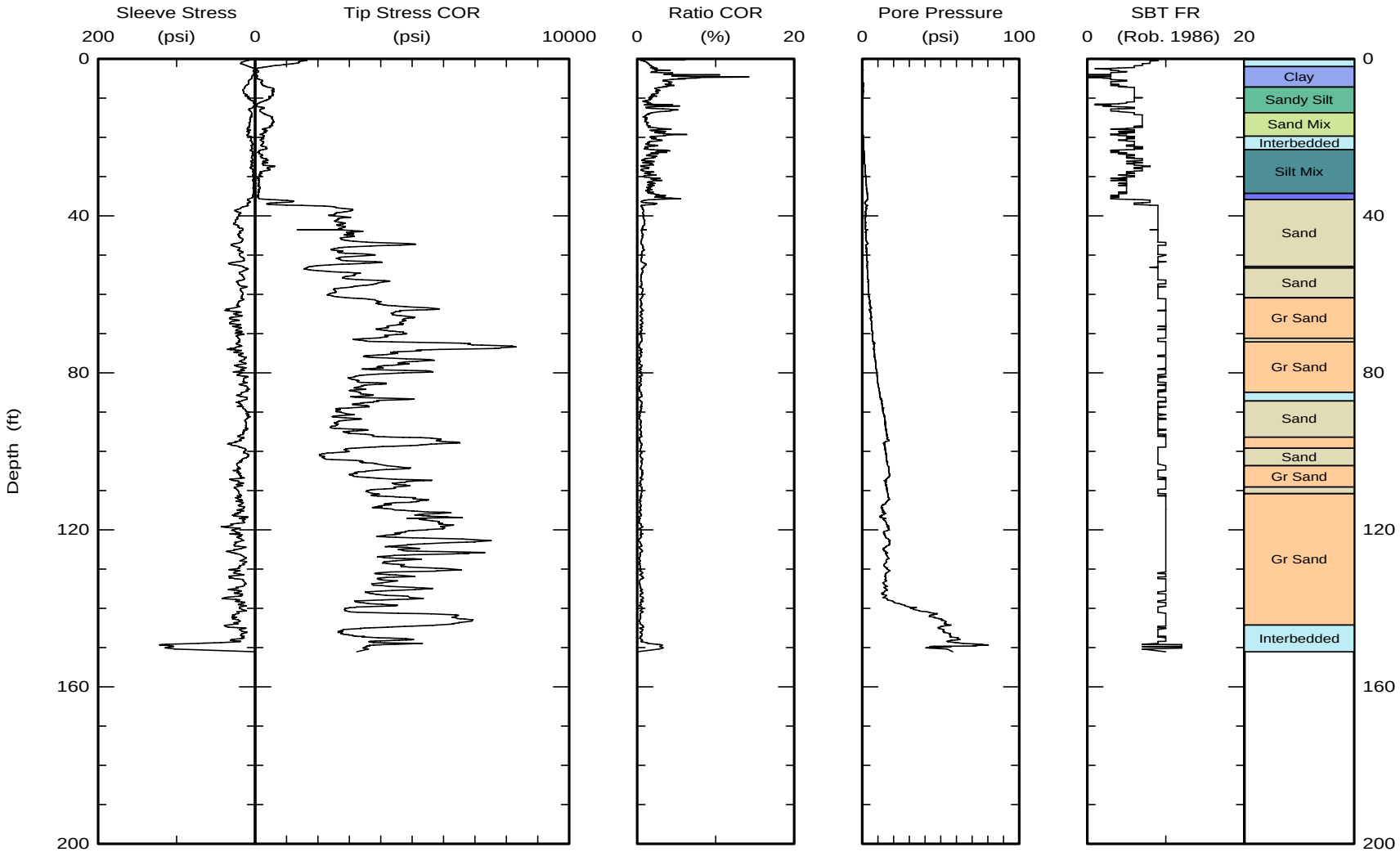
Applied Research Associates, Inc. South Royalton, VT 05068 802-763-8348 cpt@ned.ara.com www.ara.com	Northing: Easting: Elevation:	Date: 27/Mar/2008 Test ID: CPT-07 Project: 18472
	Client: GEOMATRIX Job Site: CEDAR CHEMICAL	



Maximum depth: 111.87 (ft)

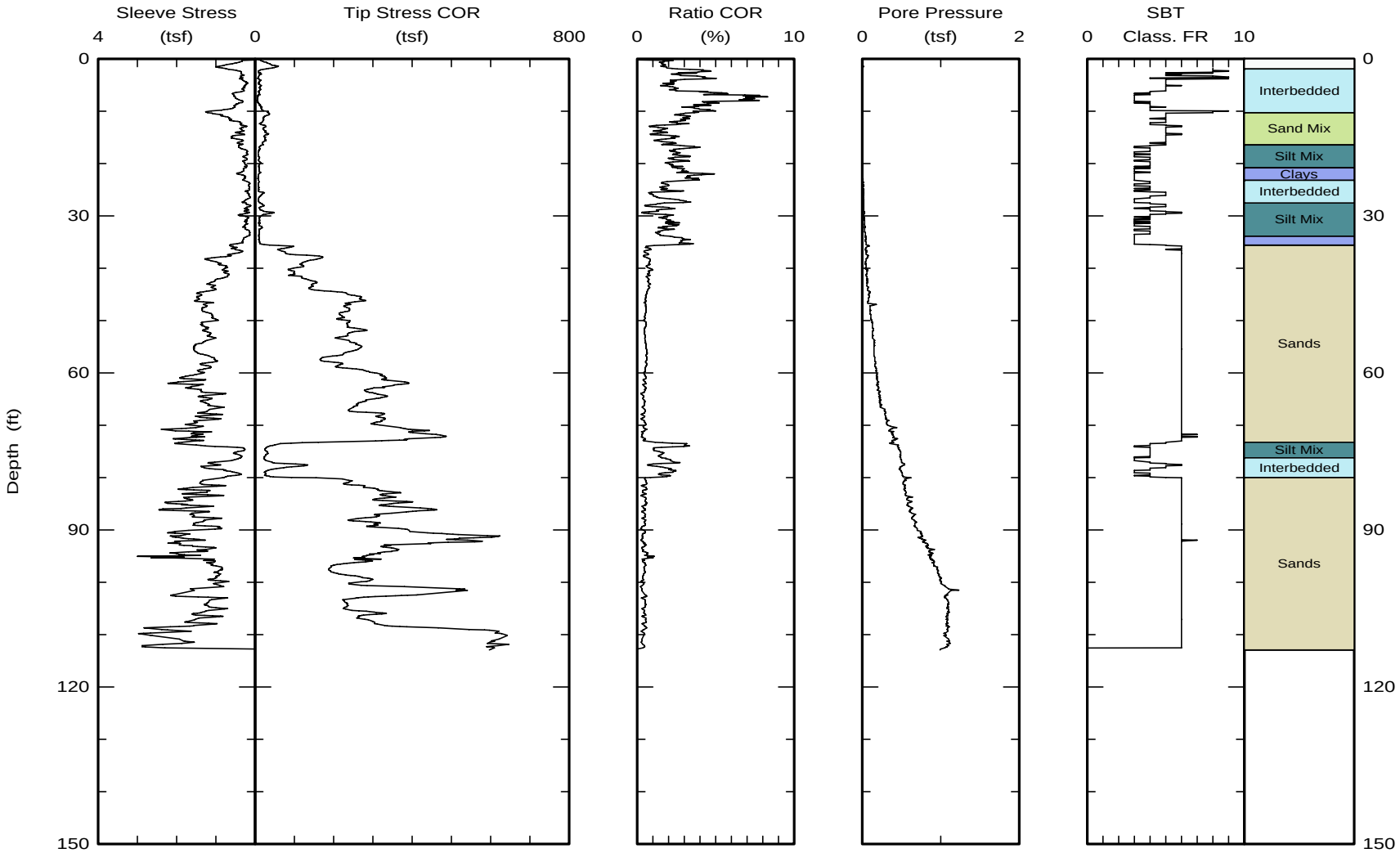
Class FR: Friction Ratio Classification (Ref: Robertson 1990)

Applied Research Associates, Inc. South Royalton, VT 05068 802-763-8348 cpt@ned.ara.com www.ara.com	Northing: Easting: Elevation:	Date: 30/Mar/2008 Test ID: CPT-08 Project: 18472
	Client: GEOMATRIX Job Site: CEDAR CHEMICAL	



Maximum depth: 151.08 (ft)

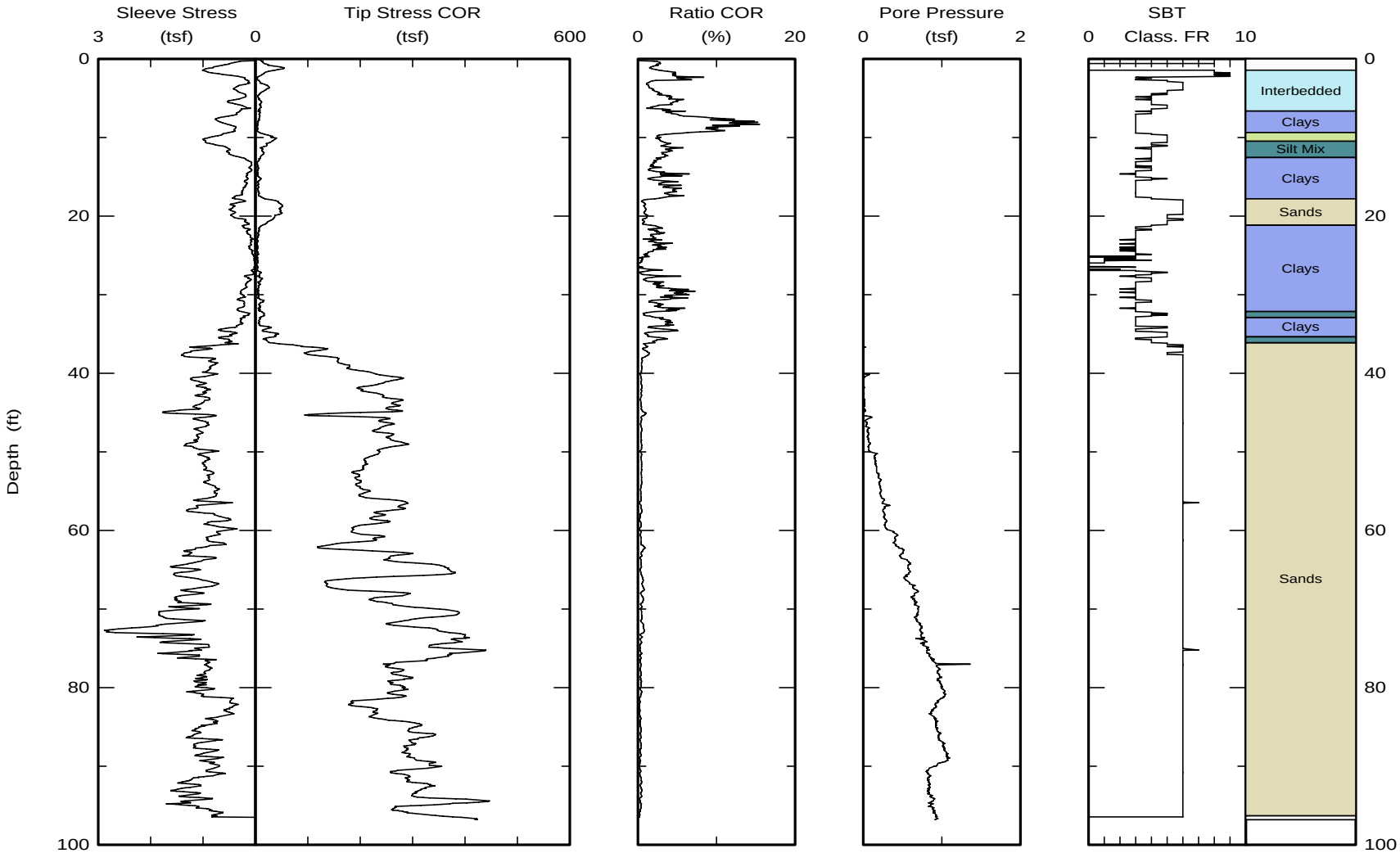
Applied Research Associates, Inc. South Royalton, VT 05068 802-763-8348 cpt@ned.ara.com www.ara.com	Northing: Easting: Elevation:	Date: 28/Mar/2008 Test ID: CPT-09 Project: 18472
	Client: GEOMATRIX Job Site: CEDAR CHEMICAL	



Maximum depth: 112.94 (ft)

Class FR: Friction Ratio Classification (Ref: Robertson 1990)

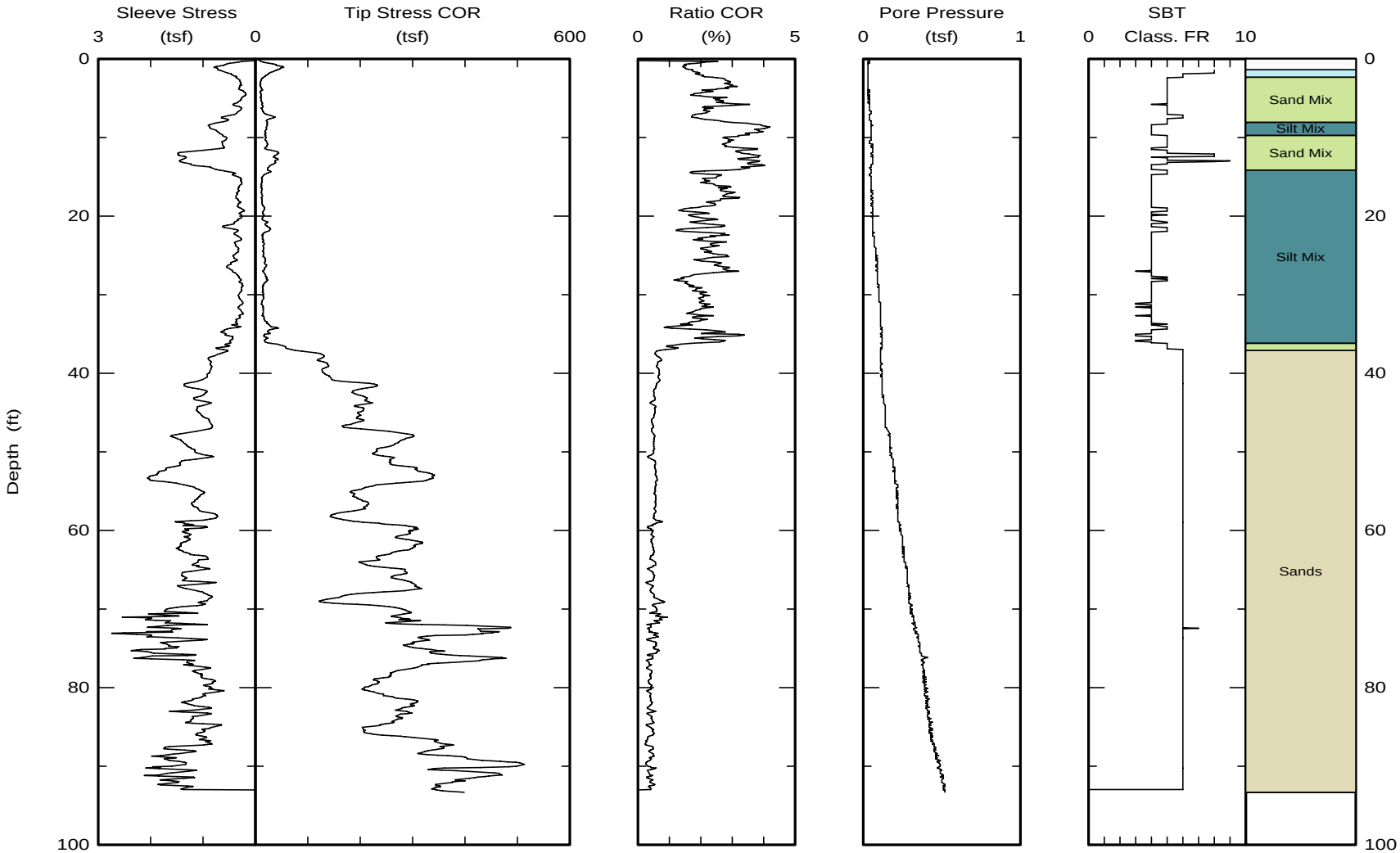
Applied Research Associates, Inc. South Royalton, VT 05068 802-763-8348 cpt@ned.ara.com www.ara.com	Northing: Easting: Elevation:	Date: 28/Mar/2008 Test ID: CPT-10 Project: 18472
	Client: GEOMATRIX Job Site: CEDAR CHEMICAL	



Maximum depth: 96.81 (ft)

Class FR: Friction Ratio Classification (Ref: Robertson 1990)

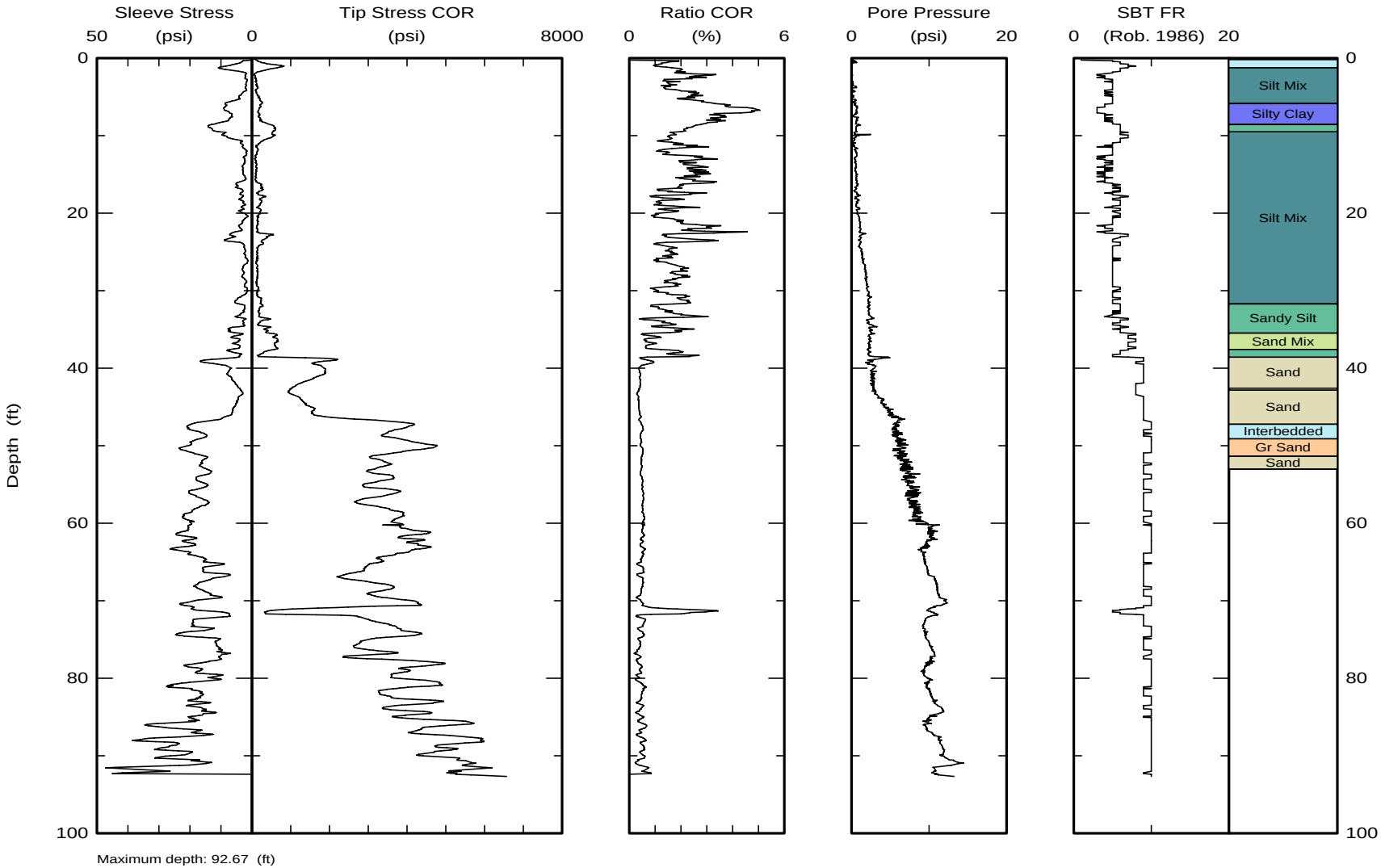
Applied Research Associates, Inc. South Royalton, VT 05068 802-763-8348 cpt@ned.ara.com www.ara.com	Northing: Easting: Elevation:	Date: 28/Mar/2008 Test ID: CPT-11 Project: 18472
	Client: GEOMATRIX Job Site: CEDAR CHEMICAL	



Maximum depth: 93.33 (ft)

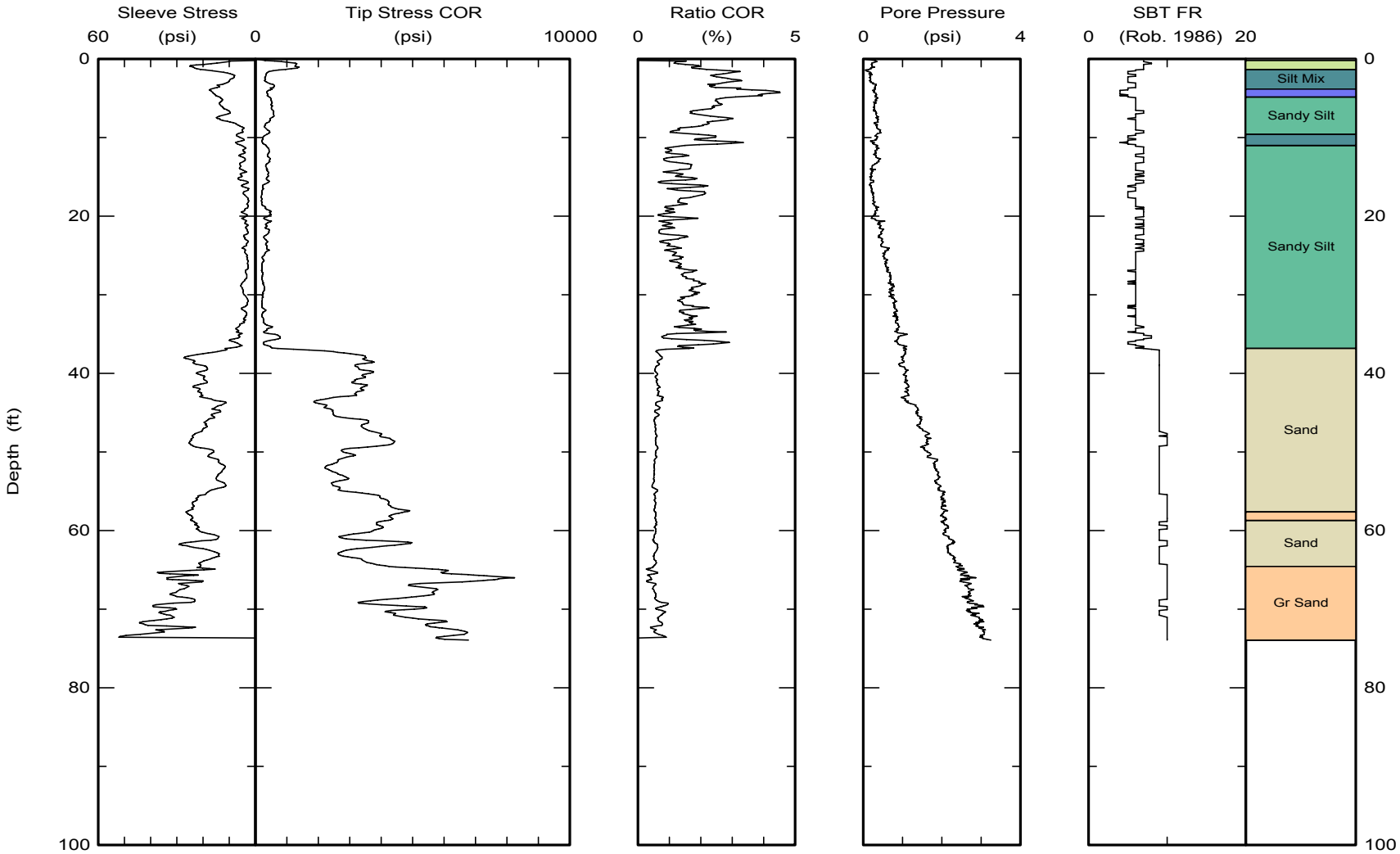
Class FR: Friction Ratio Classification (Ref: Robertson 1990)

Applied Research Associates, Inc. South Royalton, VT 05068 802-763-8348 cpt@ned.ara.com www.ara.com	Northing: Easting: Elevation:	Date: 29/Mar/2008 Test ID: CPT-12 Project: 18472
	Client: GEOMATRIX Job Site: CEDAR CHEMICAL	



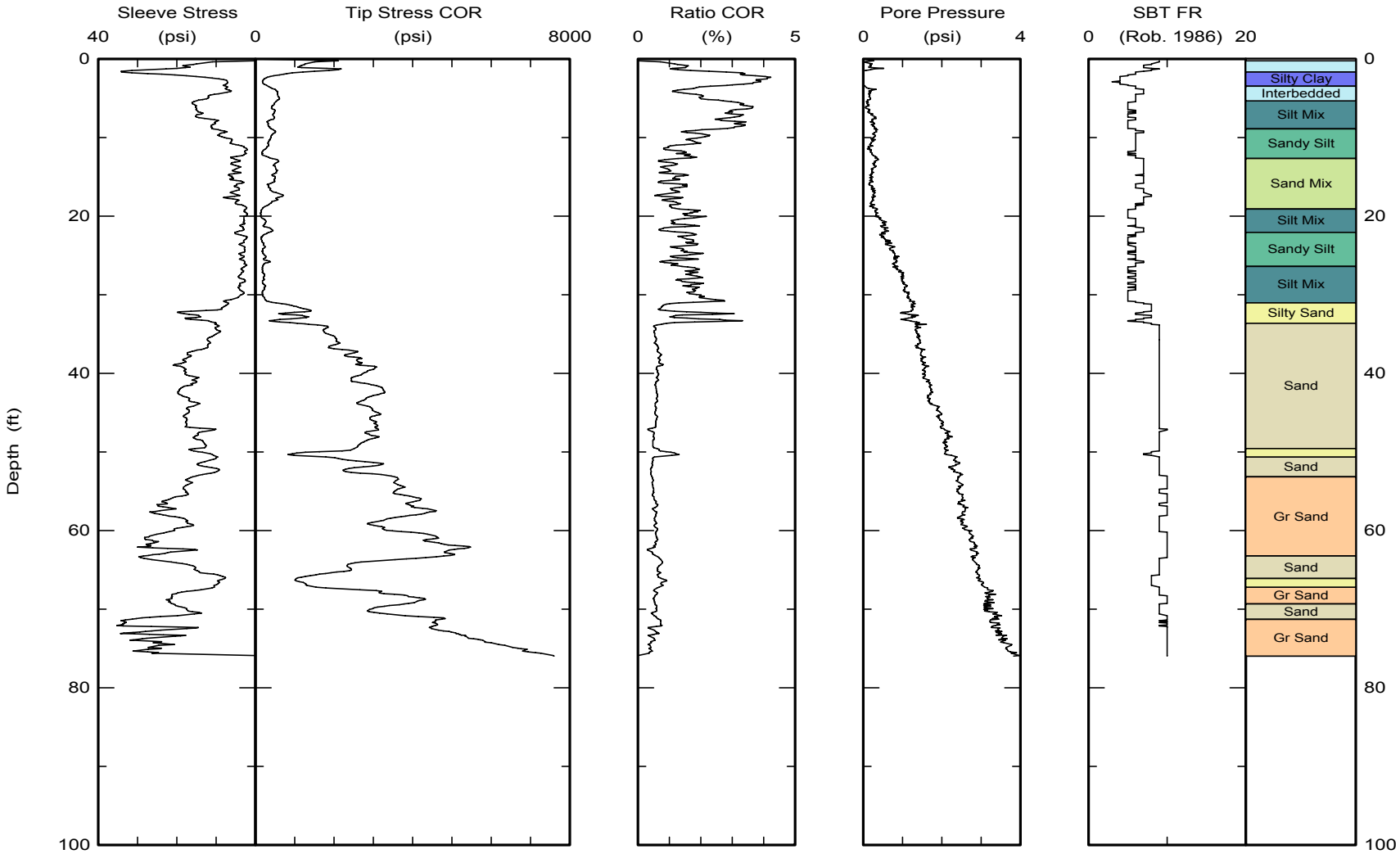
Maximum depth: 92.67 (ft)

Applied Research Associates South Royalton, VT 05068 802-763-8348 cpt@ned.ara.com www.ara.com	Northing: Easting: Elevation:	Date: 01/Apr/2008 Test ID: CPT-13 Project: 18472
	Client: GEOMATRIX Site: CEDAR CHEMICAL	



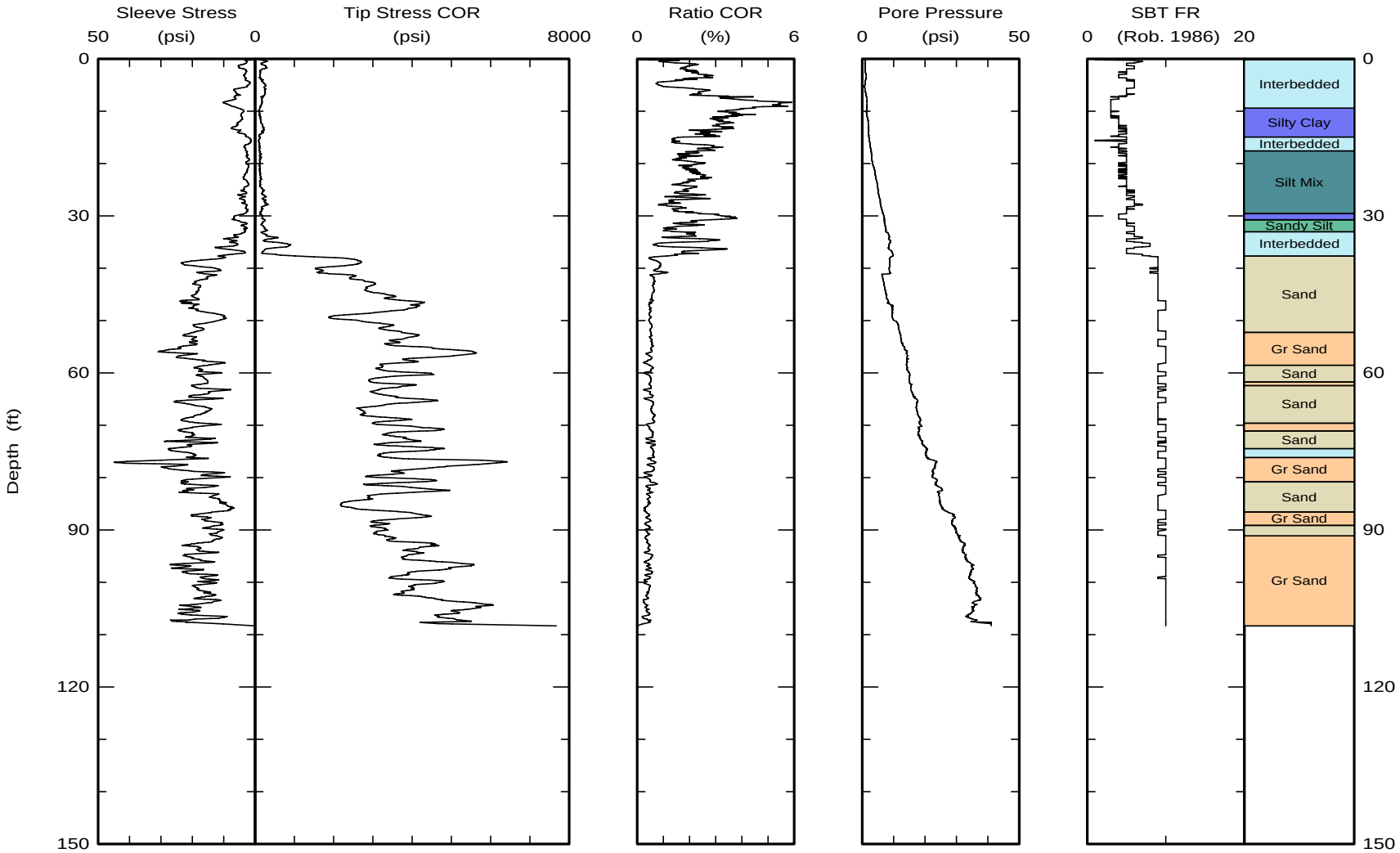
Maximum depth: 73.94 (ft)

Applied Research Associates South Royalton, VT 05068 802-763-8348 cpt@ned.ara.com www.ara.com	Northing: Easting: Elevation:	Date: 01/Apr/2008 Test ID: CPT-14 Project: 18472
	Client: GEOMATRIX Site: CEDAR CHEMICAL	



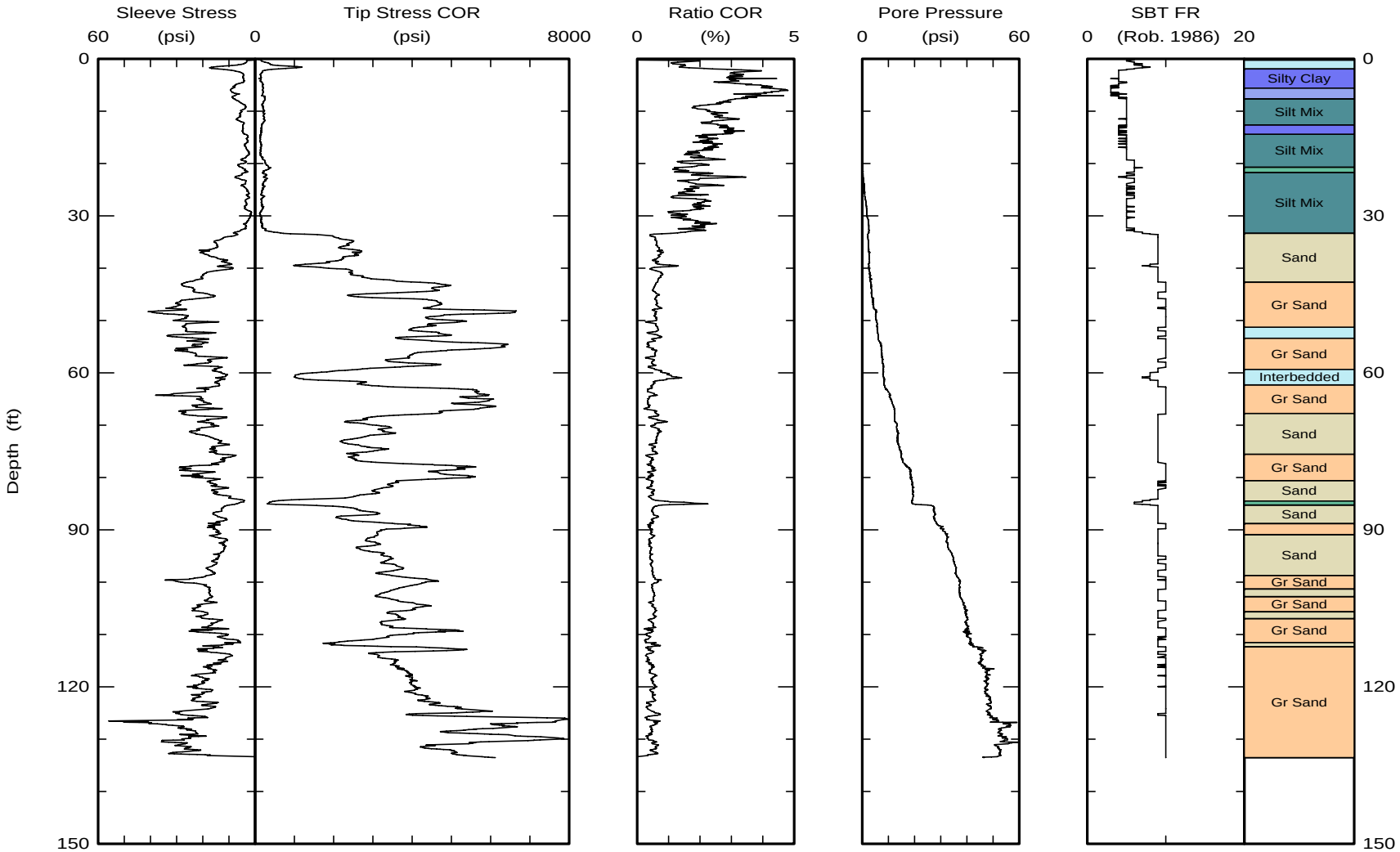
Maximum depth: 75.97 (ft)

Applied Research Associates, Inc. South Royalton, VT 05068 802-763-8348 cpt@ned.ara.com www.ara.com	Northing: Easting: Elevation:	Date: 29/Mar/2008 Test ID: CPT-15 Project: 18472
	Client: GEOMATRIX Job Site: CEDAR CHEMICAL	



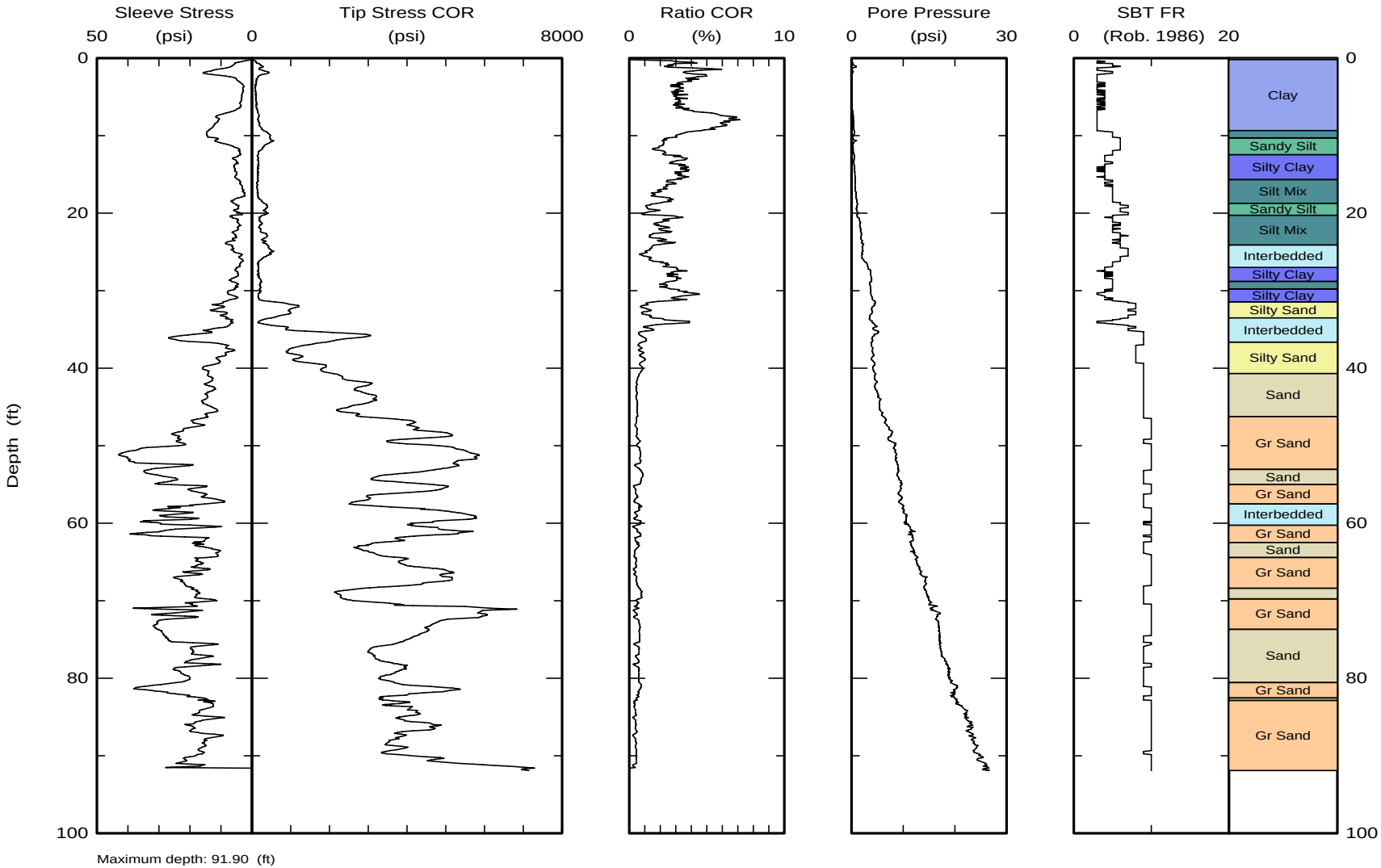
Maximum depth: 108.33 (ft)

Applied Research Associates, Inc. South Royalton, VT 05068 802-763-8348 cpt@ned.ara.com www.ara.com	Northing: Easting: Elevation:	Date: 29/Mar/2008 Test ID: CPT-16 Project: 18472
	Client: GEOMATRIX Job Site: CEDAR CHEMICAL	



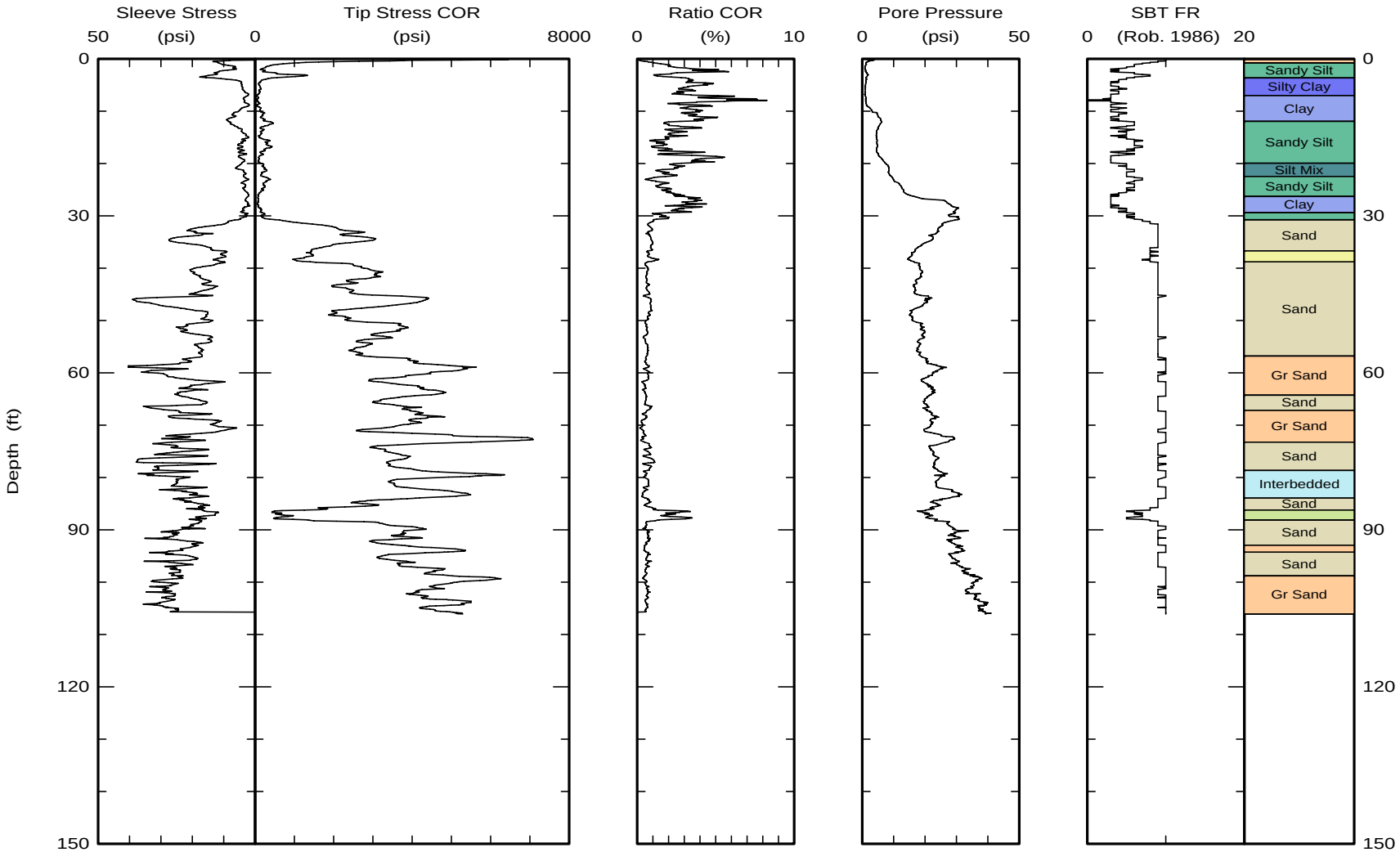
Maximum depth: 133.54 (ft)

Applied Research Associates, Inc. South Royalton, VT 05068 802-763-8348 cpt@ned.ara.com www.ara.com	Northing: Easting: Elevation:	Date: 31/Mar/2008 Test ID: CPT-17 Project: 18472
	Client: GEOMATRIX Job Site: CEDAR CHEMICAL	



Maximum depth: 91.90 (ft)

Applied Research Associates, Inc. South Royalton, VT 05068 802-763-8348 cpt@ned.ara.com www.ara.com	Northing: Easting: Elevation:	Date: 30/Mar/2008 Test ID: CPT-18 Project: 18472
	Client: GEOMATRIX Job Site: CEDAR CHEMICAL	



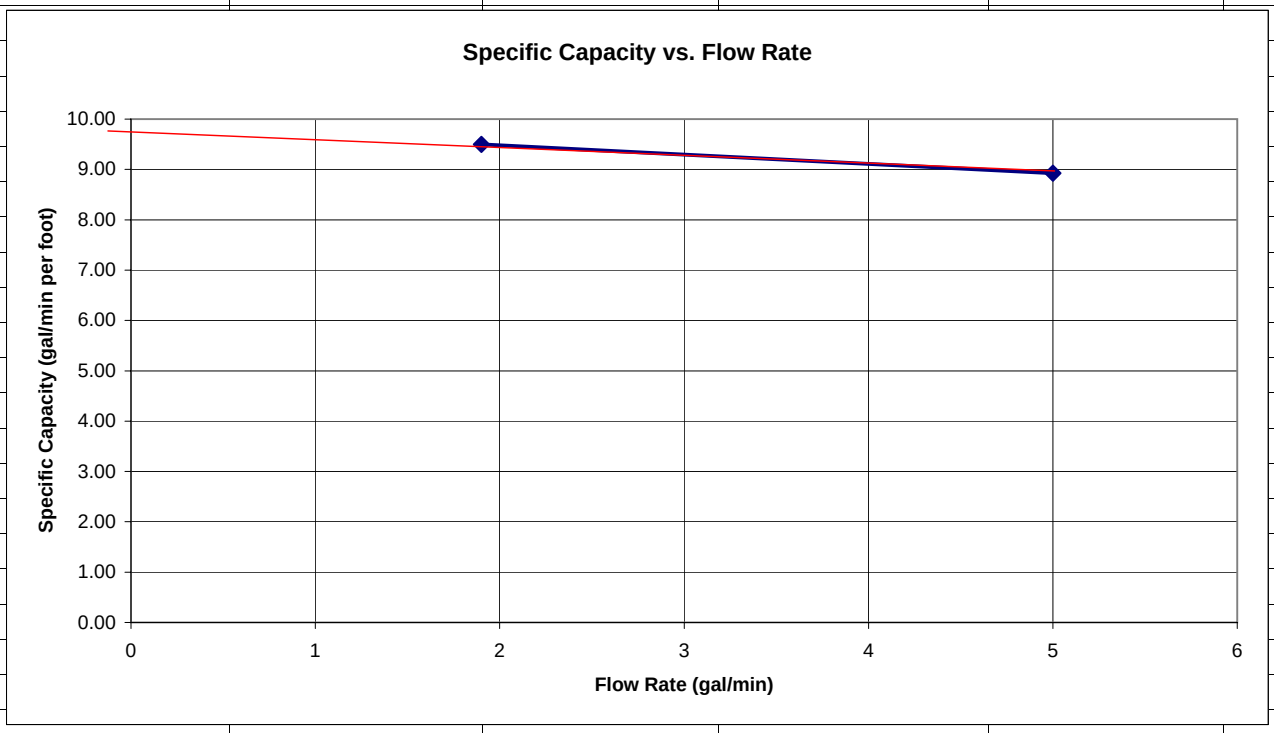
Maximum depth: 106.09 (ft)

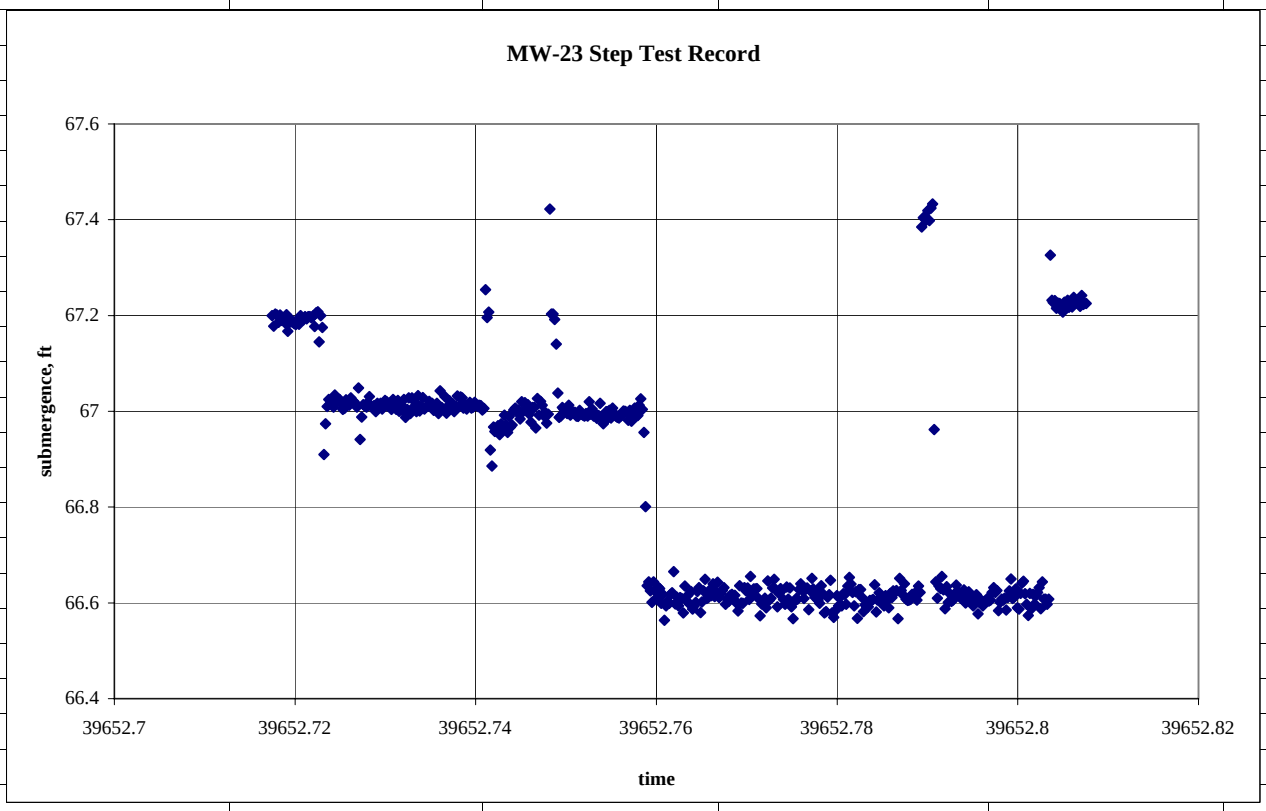
APPENDIX D

Aquifer Testing Results

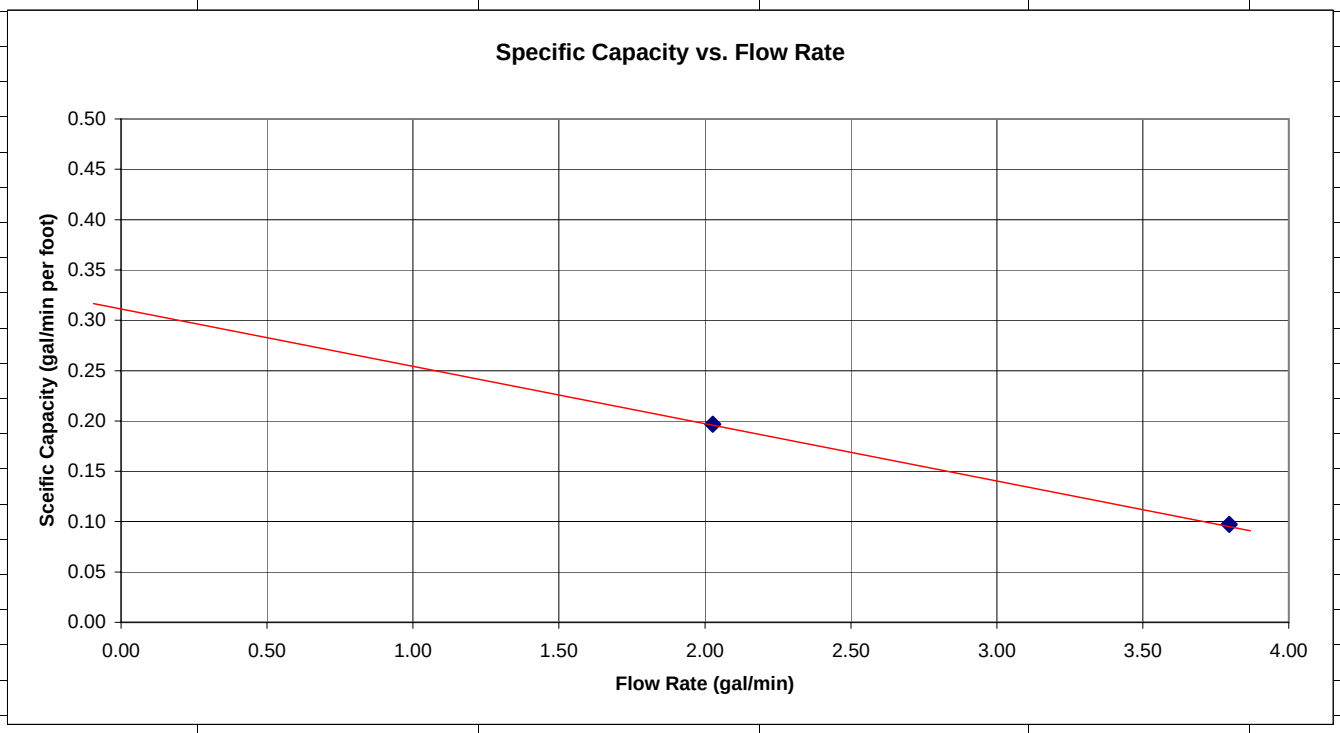
STEP-DRAWDOWN TEST					
CEDAR CHEMICAL SITE					
HELENA-WEST HELENA, ARKANSAS					
Test Well:	MW-23				page 1 of 2
Date:	7/23/2008				
Barometric Pressure:	33.8	(ft H2O)	After Test		
A. Initial Water Levels					
		Transducer			
Well	**Depth to Water (ft toc)**	**Submergence (ft)**	**Aquifer**	**Function**	
MW-23	36.93	67.15	middle	test well	
2MW-6	36.52		upper	obs. well	
2MW-7	37.04		lower	obs. well	
toc=top of casing					
B. Pumping Rate Measurements					
		Container volume		**Calculated**	**Time of**
Step Number	**Step Start Time**	**(gal)**	**time to fill (min)**	**Flow Rate (gal/min)**	**Measurement**
1	1713	5	3.02	1.66	1715
1	1713	5	2.7	1.85	1755
1	1713	5	2.63	1.90	1812
2	1813	5	1	5	1815
C. Drawdown in Pumping Well					
	Transducer	**Drawdown**			
Step	**Submergence (ft)**	**(feet)**	**End of Step?**		
1	67	0.15	n		
1	66.9	0.25	n		
1	66.95	0.2	y		
2	66.59	0.56	y		
D. Specific Capacity					
	Duration	**Flow Rate**	**Drawdown**	**Specific Capacity**	
Step	**(min)**	**(gal/min)**	**(feet)**	**(gal/min per foot)**	
1	60	1.9	0.2	9.50	
2	55	5	0.56	8.93	
Estimated specific capacity at zero pumping rate - see chart below				9.90	
estimation factor:	1300				
B	10				
E. Estimate T and K from Specific Capacity					
Specific Capacity	**Estimated T**	**Estimated K (=T/B)**	**Estimated K**		
(gal/min per foot)	**(gpd/ft)**	**(gpd/ft^2)**	**(cm/sec)**		
9.90	12870	1287	6.07E-02		
F. Water Levels in Observation Wells					
			Drawdown		
Well	**Time**	**Depth to Water (ft toc)**	**(feet)**		
2MW-7	1757	36.96	-0.08		
2MW-7	1826	36.965	-0.075		
2MW-7	1907	36.975	-0.065		
2MW-6	1757	36.61	0.09		
2MW-6	1825	36.58	0.06		

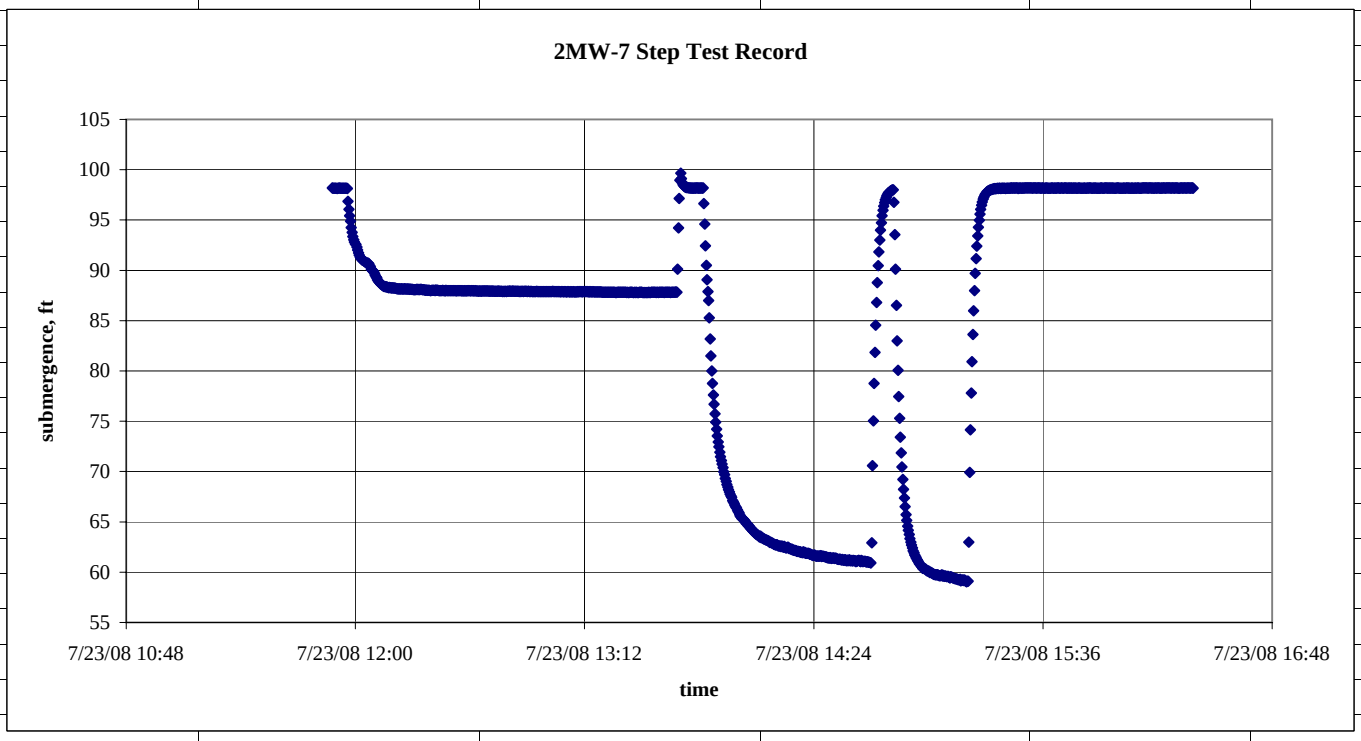
2MW-6	1907	36.59	0.07		
					page 2 of 2



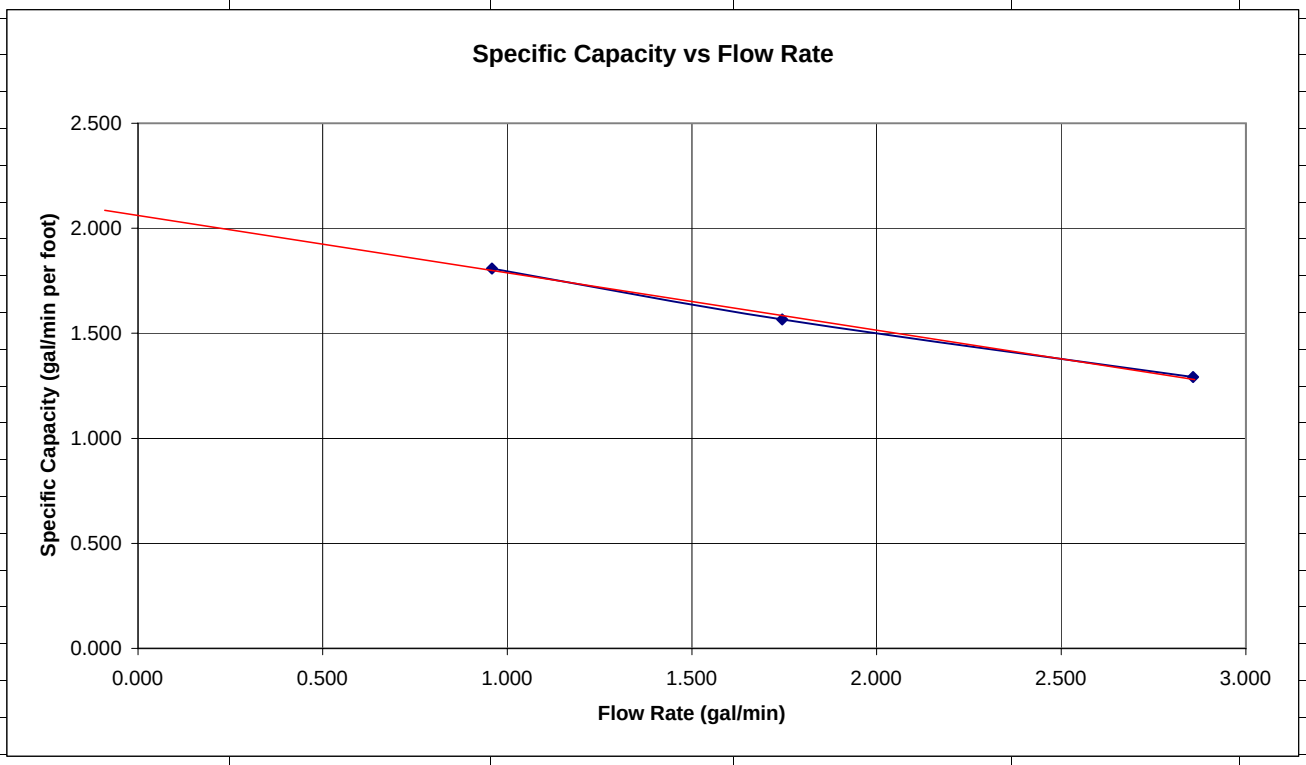


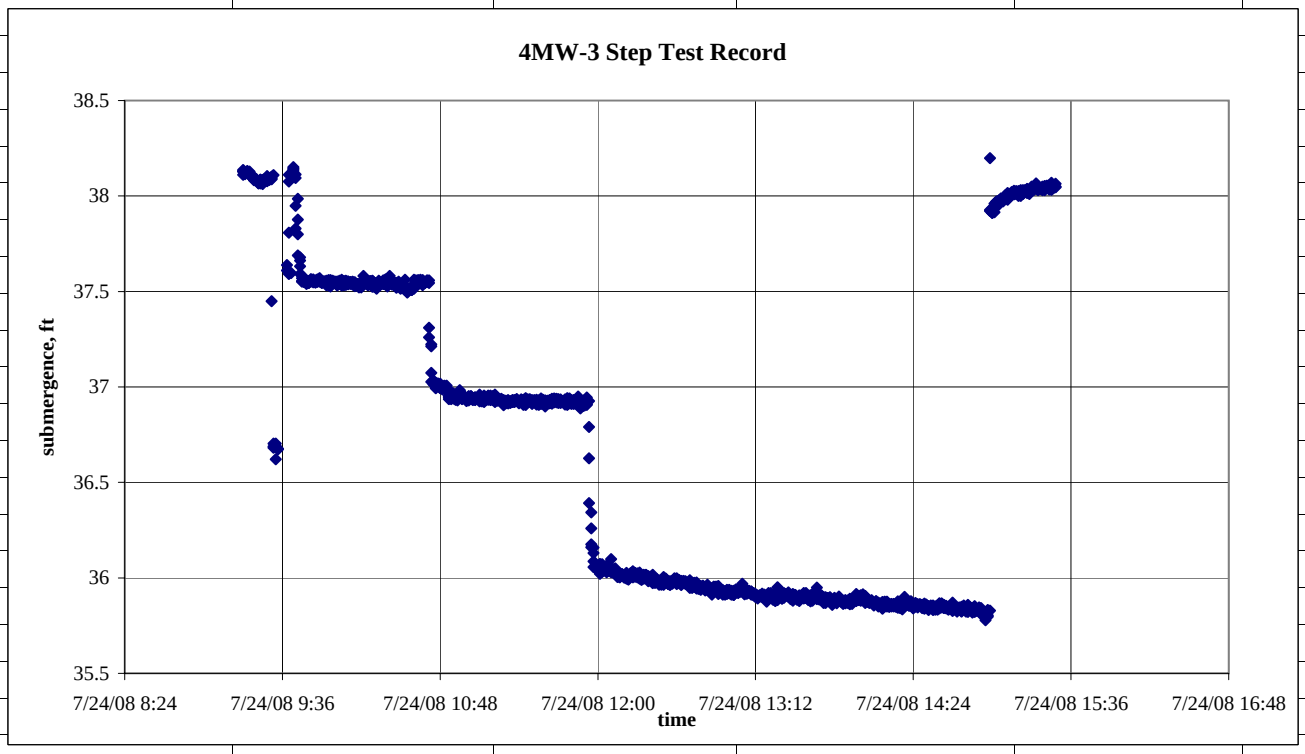
STEP-DRAWDOWN TEST					
CEDAR CHEMICAL SITE					
HELENA-WEST HELENA, ARKANSAS					
Test Well:	2MW-7				page 1 of 2
Date:	7/23/2008				
Barometric Pressure:	not measured	(ft H2O)			
A. Initial Water Levels					
		Transducer			
Well	**Depth to Water (ft toc)**	**Submergence (ft)**	**Aquifer**	**Function**	
2MW-7	37.00	98.12	Lower	test well	
2MW-6	36.59	NA	Upper	obs. well	
MW-23	36.98	NA	Middle	obs. well	
toc = top of casing					
B. Pumping Rate Measurements					
		Container volume		**Calculated**	**Time of**
Step Number	**Step Start Time**	**(gal)**	**time to fill (min)**	**Flow Rate (gal/min)**	**Measurement**
1	1210	5	2.47	2.03	1220
2	1349	5	1.32	3.80	1415
C. Drawdown in Pumping Well					
	Transducer	**Drawdown**			
Step	**Submergence (ft)**	**(feet)**	**End of Step?**		
1	87.817	10.303	y		
2	59.1	39.02	y		
D. Specific Capacity					
	Duration	**Flow Rate**	**Drawdown**	**Specific Capacity**	
Step	**(min)**	**(gal/min)**	**(feet)**	**(gal/min per foot)**	
1	90	2.03	10.303	0.20	
2	83	3.80	39.02	0.10	
Estimated specific capacity at zero pumping rate - see chart below				**0.31**	
estimation factor:	1300				
B	10	assumed thickness in feet for K calculation			
E. Estimate T and K from Specific Capacity					
Specific Capacity	**Estimated T**	**Estimated K (=T/B)**	**Estimated K**		
(gal/min per foot)	**(gpd/ft)**	**(gpd/ft^2)**	**(cm/sec)**		
0.31	403	40	1.90E-03		
F. Water Levels in Observation Wells					
			Drawdown		
Well	**Time**	**Depth to Water (ft toc)**	**(feet of level decline)**		
2MW-6	1240	36.56	0.03		
2MW-6	1431	36.545	0.045		
MW-23	1241	37.00	-0.02		
MW-23	1434	36.95	0.03		


Specific Capacity vs. Flow Rate
Sceific Capacity (gal/min per foot)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
0.00
0.50
1.00
1.50
2.00
2.50
3.00
3.50
4.00
Flow Rate (gal/min)

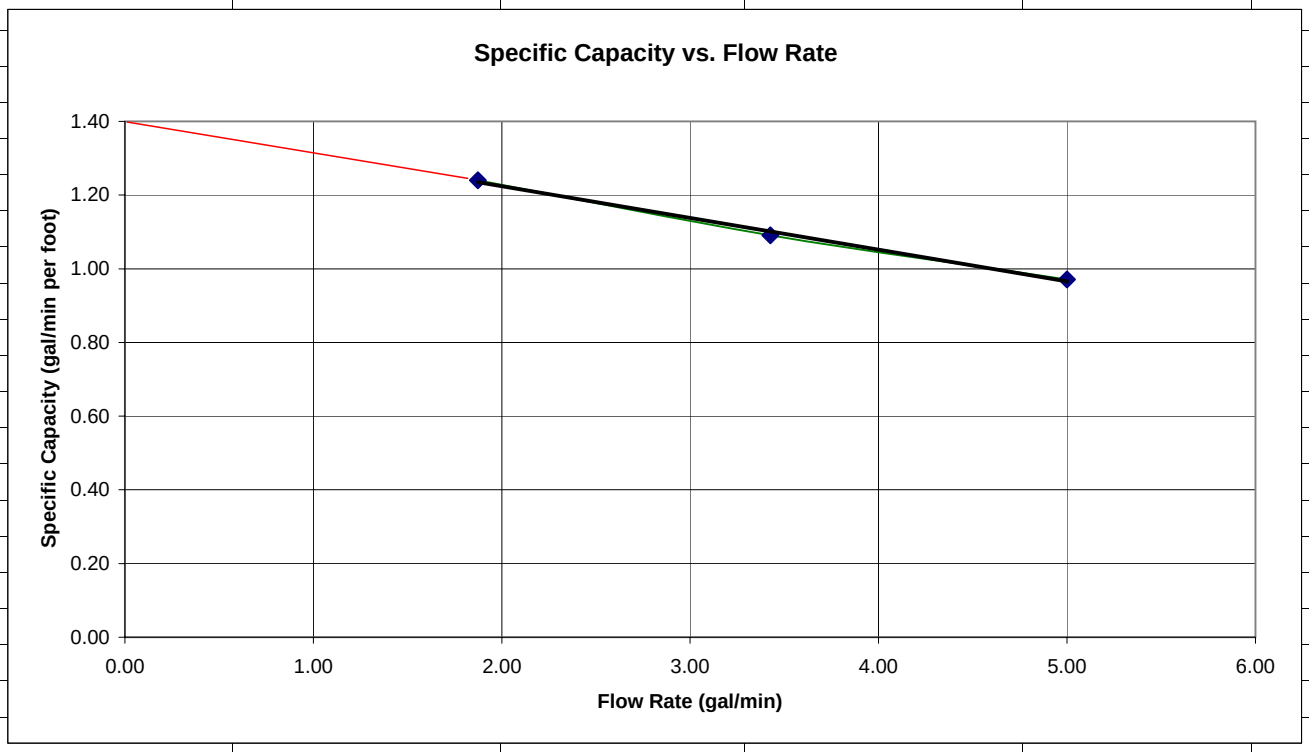

2MW-7 Step Test Record
submergence, ft
105
100
95
90
85
80
75
70
65
60
55
7/23/08 10:48
7/23/08 12:00
7/23/08 13:12
7/23/08 14:24
7/23/08 15:36
7/23/08 16:48
time

STEP-DRAWDOWN TEST					
CEDAR CHEMICAL SITE					
HELENA-WEST HELENA, ARKANSAS					
Test Well:	4MW-3				page 1 of 2
Date:	7/24/2008				
Barometric Pressure:	33.91	(ft H2O)	Before Test		
A. Initial Water Levels					
		Transducer			
Well	**Depth to Water (ft toc)**	**Submergence (ft)**	**Aquifer**	**Function**	
4MW-3	40.08	38.04	Upper	test well	
no observation wells				NA	
B. Pumping Rate Measurements					
		Container volume		**Calculated**	**Time of**
Step Number	**Step Start Time**	**(gal)**	**time to fill (min)**	**Flow Rate (gal/min)**	**Measurement**
1	943	5	5.216	0.959	1034
2	1043	5	2.867	1.744	1153
3	1158	5	1.75	2.857	1500
C. Drawdown in Pumping Well					
	Transducer	**Drawdown**			
Step	**Submergence (ft)**	**(feet)**	**End of Step?**		
1	37.51	0.53	y		
2	36.926	1.114	y		
3	35.829	2.211	y		
D. Specific Capacity					
	Duration	**Flow Rate**	**Drawdown**	**Specific Capacity**	
Step	**(min)**	**(gal/min)**	**(feet)**	**(gal/min per foot)**	
1	60	0.959	0.53	1.809	
2	69	1.744	1.114	1.566	
3	179	2.857	2.211	1.292	
Estimated specific capacity at zero pumping rate - see chart below				**2.1**	
estimation factor:	1300				
B	10	assumed thickness in feet for K calculation			
E. Estimate T and K from Specific Capacity					
Specific Capacity	**Estimated T**	**Estimated K = T/B**	**Estimated K**		
(gal/min per foot)	**(gpd/ft)**	**(gpd/ft2)**	**(cm/sec)**		
2.1	2730	273	1.29E-02		
F. Water Levels in Observation Wells					
			Drawdown		
Well	**Time**	**Depth to Water (ft toc)**	**(feet)**		
NA	NA	NA	NA		


Specific Capacity vs Flow Rate
Specific Capacity (gal/min per foot)
2.500
2.000
1.500
1.000
0.500
0.000
0.000
0.500
1.000
1.500
2.000
2.500
3.000
Flow Rate (gal/min)


4MW-3 Step Test Record
submergence, ft
38.5
38
37.5
37
36.5
36
35.5
7/24/08 8:24
7/24/08 9:36
7/24/08 10:48
7/24/08 12:00
7/24/08 13:12
7/24/08 14:24
7/24/08 15:36
7/24/08 16:48
time

STEP-DRAWDOWN TEST					
CEDAR CHEMICAL SITE					
HELENA-WEST HELENA, ARKANSAS					
Test Well:	9MW-1				page 1 of 2
Date:	7/23/2008				
Barometric Pressure:	not measured	(ft H2O)			
A. Initial Water Levels					
		Transducer			
Well	**Depth to Water (ft toc)**	**Submergence (ft)**	**Aquifer**	**Function**	
9MW-1	34.5	39.00	Upper	test well	
EMW-3	37.27		Upper	obs. well	
B. Pumping Rate Measurements					
		Container volume		**Calculated**	**Time of**
Step Number	**Step Start Time**	**(gal)**	**time to fill (min)**	**Flow Rate (gal/min)**	**Measurement**
1	758	5	2.67	1.87	812
2	906	5	1.46	3.42	909
3	959	5	1	5	1008
C. Drawdown in Pumping Well					
	Transducer	**Drawdown**			
Step	**Submergence (ft)**	**(feet)**	**End of Step?**		
1	37.49	1.51	y		
2	35.86	3.14	y		
3	33.85	5.15	y		
D. Specific Capacity					
	Duration	**Flow Rate**	**Drawdown**	**Specific Capacity**	
Step	**(min)**	**(gal/min)**	**(feet)**	**(gal/min per foot)**	
1	68	1.87	1.51	1.24	
2	53	3.42	3.14	1.09	
3	107	5.00	5.15	0.97	
Estimated Specific Capacity at zero pumping rate - see chart below				**1.40**	
estimation factor:	1300				
B	10	assumed thickness in feet for K calculation			
E. Estimate T and K from Specific Capacity					
Specific Capacity	**Estimated T**	**Estimated K (=T/B)**	**Estimated K**		
(gal/min per foot)	**(gpd/ft)**	**(gpd/ft2)**	**(cm/sec)**		
1.40	1820	182	8.58E-03		
F. Water Levels in Observation Wells					
			Drawdown		
Well	**Time**	**Depth to Water (ft toc)**	**(feet)**		
EMW-3	900	37.28	0.01		
EMW-3	955	37.29	0.02		
EMW-3	1146	37.295	0.025		


Specific Capacity vs. Flow Rate
Specific Capacity (gal/min per foot)
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0.00
1.00
2.00
3.00
4.00
5.00
6.00
Flow Rate (gal/min)

STEP-DRAWDOWN TEST

CEDAR CHEMICAL SITE

HELENA-WEST HELENA, ARKANSAS

Test Well:	EMW-6A				page 1 of 2
Date:	7/22/2008				
Barometric Pressure:	33.864	(ft H2O)	Before Test		
Barometric Pressure:	33.789	(ft H2O)	After Test		

A. Initial Water Levels

Well	Depth to Water (ft toc)	Transducer Submergence (ft)	Aquifer	Function
EMW-6A	37.82	36.593	upper	test well
EMW-6	38.89	NA	middle	obs. well
4MW-4	41.29	NA	lower	obs. well

toc = top of casing

B. Pumping Rate Measurements

Step Number	Step Start Time	Container volume (gal)	time to fill (min)	Calculated Flow Rate (gal/min)	Time of Measurement
1	1402	5	4.5	1.11	1405
2	1500	5	2	2.50	1538
3	1557	5	1.5	3.33	1654

C. Drawdown in Pumping Well

Step	Transducer Submergence (ft)	Drawdown (feet)	End of Step?
1	35.88	0.72	y
2	34.62	1.97	y
3	33.80	2.80	y

D. Specific Capacity

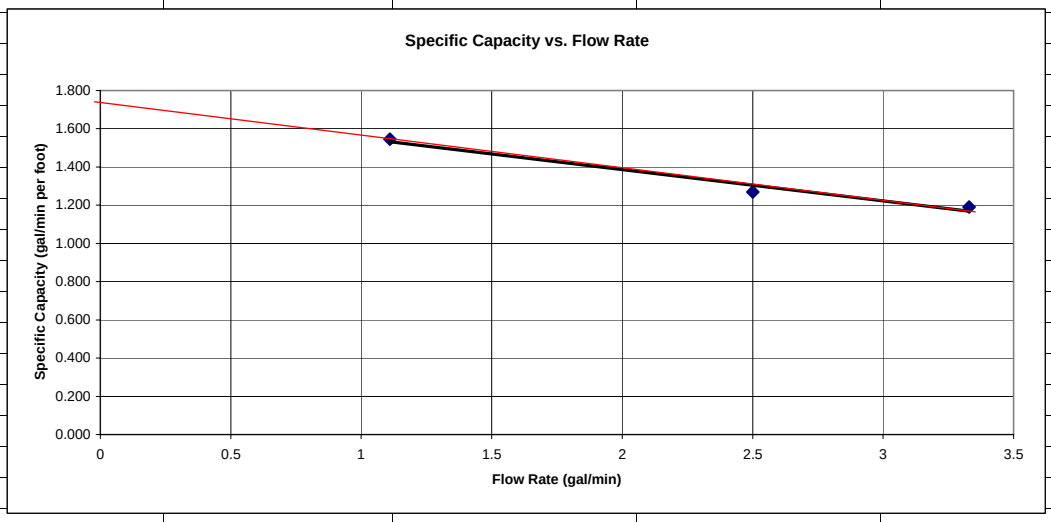
Step	Duration (min)	Flow Rate (gal/min)	Drawdown (feet)	Specific Capacity (gal/min per foot)
1	58	1.11	0.72	1.546
2	57	2.5	1.97	1.270
3 (first hr)	60	3.33	2.80	1.191
Estimated specific capacity at zero pumping rate - see chart below				**1.75**
factor:	1300			
thickness	10	assumed thickness in feet for K calculation		

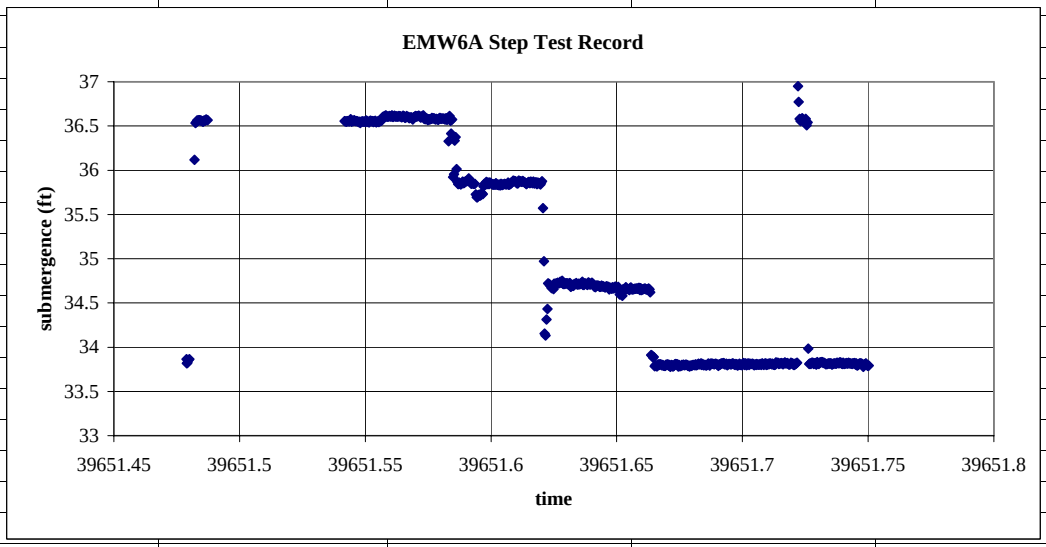
E. Estimate T and K from Specific Capacity

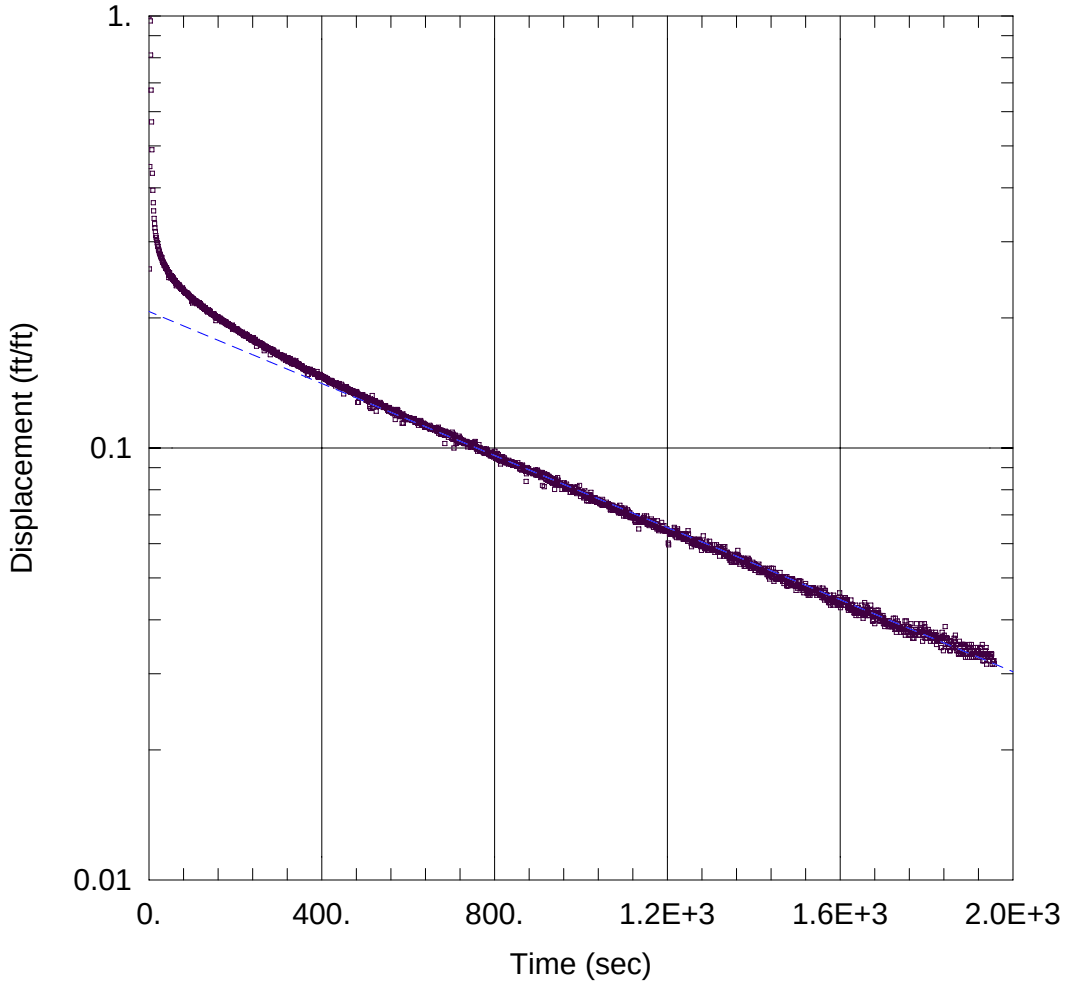
Specific Capacity (gal/min per foot)	Estimated T (gpd/ft)	Estimated K (=T/B) (gpd/ft^2)	Estimated K (cm/sec)
1.75	2275	228	1.07E-02

F. Water Levels in Observation Wells

Well	Time	Depth to Water (ft toc)	Drawdown (feet)
EMW-6	1433	38.915	0.025
EMW-6	1450	38.91	0.02
EMW-6	1522	38.94	0.05
EMW-6	1553	38.915	0.025
EMW-6	1718	38.955	0.065
EMW-6	7/23/08 0836	39.12	0.23
4MW-4	1435	41.32	0.03
4MW-4	1451	41.335	0.045
4MW-4	1524	41.34	0.05
4MW-4	1555	41.33	0.04
4MW-4	7/23/08 0838	41.54	0.25


Specific Capacity vs. Flow Rate
Specific Capacity (gal/min per foot)
1.800
1.600
1.400
1.200
1.000
0.800
0.600
0.400
0.200
0.000
0
0.5
1
1.5
2
2.5
3
3.5
Flow Rate (gal/min)


EMW6A Step Test Record
submergence (ft)
37
36.5
36
35.5
35
34.5
34
33.5
33
39651.45
39651.5
39651.55
39651.6
39651.65
39651.7
39651.75
39651.8
time



SLUG TEST 1MW-1

Data Set: I:\...\1MW1.aqt
Date: 01/14/09 Time: 10:52:42

PROJECT INFORMATION

Company: AMEC-Geomatrix
Client: Cedar Chemical
Project: 13636
Location: Helena AK
Test Well: 1MW-1
Test Date: 7/24/08

AQUIFER DATA

Saturated Thickness: 5.55 ft
Anisotropy Ratio (Kz/Kr): 1.

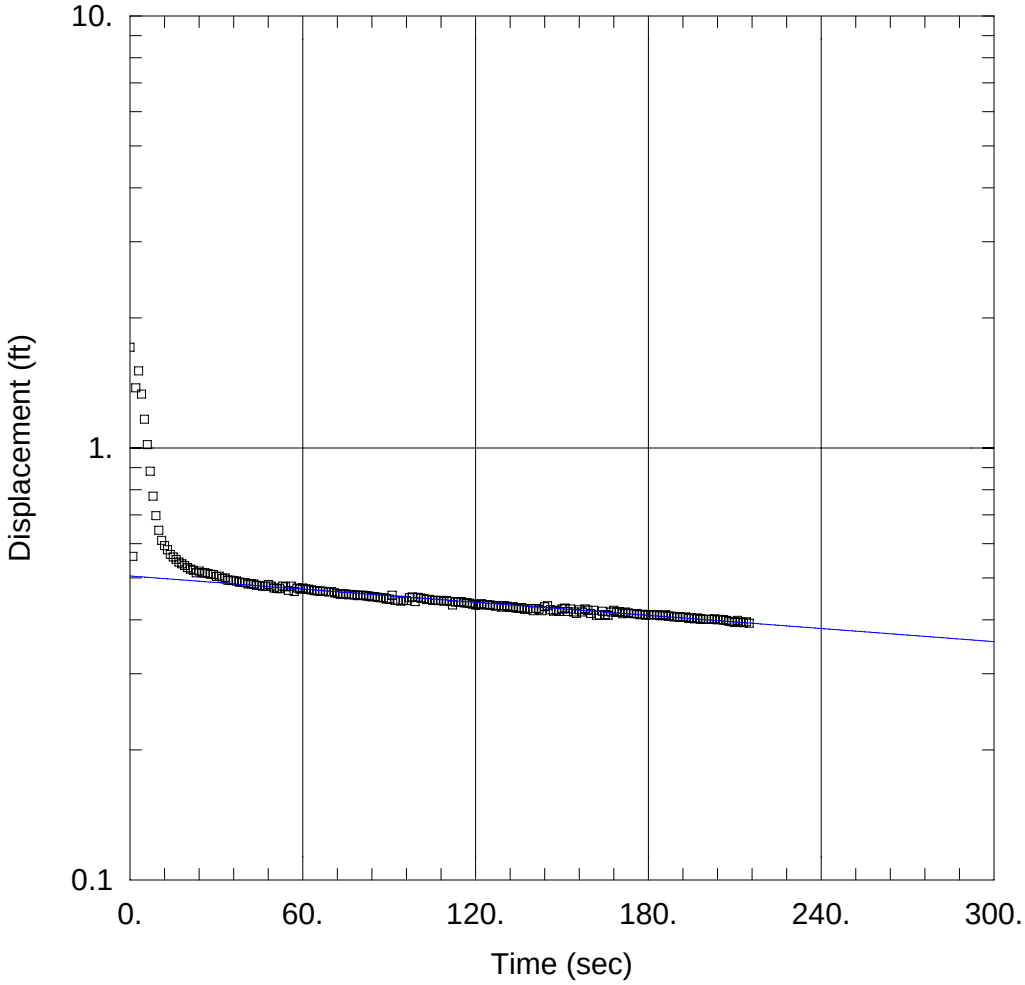
WELL DATA (1MW-1)

Initial Displacement: 1.71 ft
Total Well Penetration Depth: 5.55 ft
Casing Radius: 0.08333 ft
Static Water Column Height: 5.55 ft
Screen Length: 10. ft
Wellbore Radius: 0.2959 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 3.418E-6 ft/sec
y0 = 0.3539 ft



SLUG TEST 1MW-3

Data Set: I:\...\1MW3.aqt
Date: 01/14/09 Time: 10:50:06

PROJECT INFORMATION

Company: Geomatrix
Client: Cedar Chemical
Project: 13636
Location: Helena AK
Test Well: 1MW-3
Test Date: 7/24/08

AQUIFER DATA

Saturated Thickness: 5.179 ft
Anisotropy Ratio (Kz/Kr): 1.

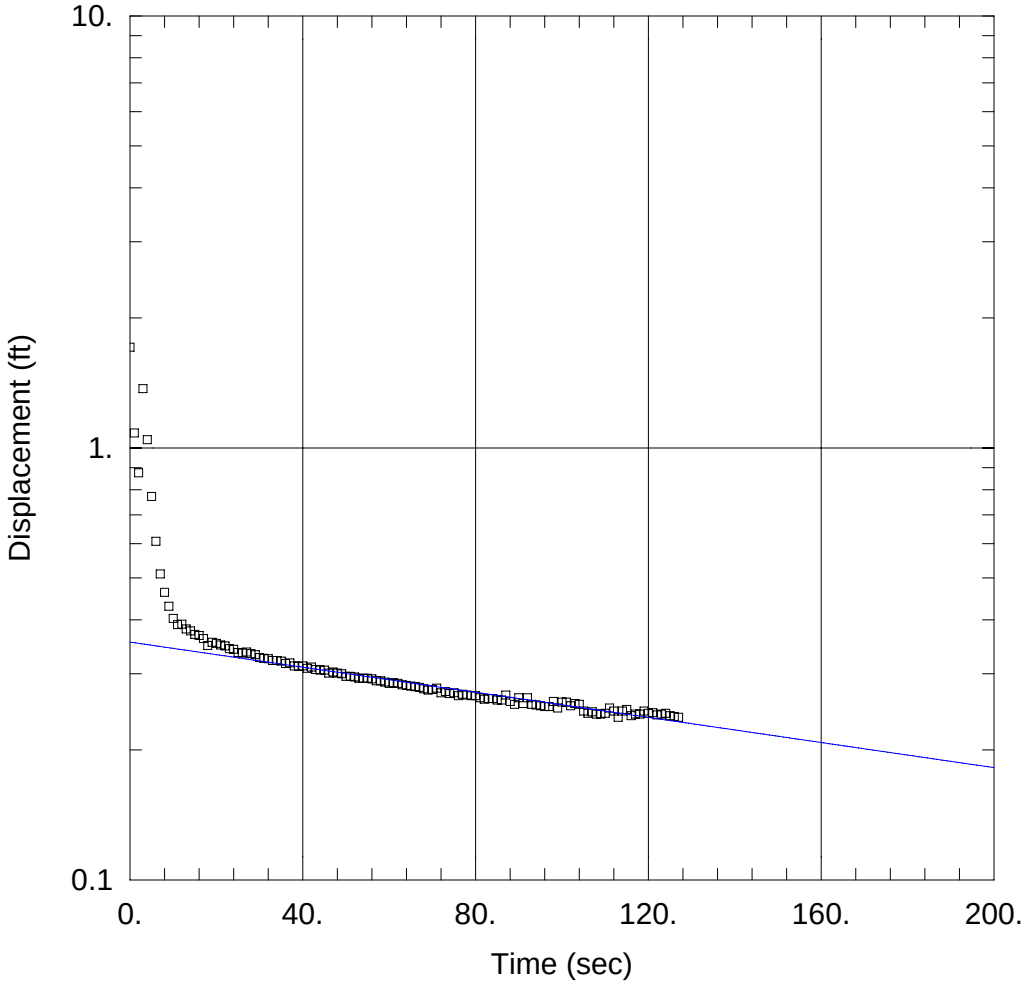
WELL DATA (1MW-3)

Initial Displacement: 1.71 ft
Total Well Penetration Depth: 5.179 ft
Casing Radius: 0.08333 ft
Static Water Column Height: 5.179 ft
Screen Length: 10. ft
Wellbore Radius: 0.2959 ft
Gravel Pack Porosity: 0.25

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 3.542E-6 ft/sec
y0 = 0.5053 ft



SLUG TEST 1MW-5

Data Set: I:\...\1MW5.aqt
Date: 01/14/09 Time: 10:50:25

PROJECT INFORMATION

Company: Geomatrix
Client: Cedar Chemical
Project: 13636
Location: Helena AK
Test Well: 1MW-5
Test Date: 7/24/08

AQUIFER DATA

Saturated Thickness: 7.075 ft
Anisotropy Ratio (Kz/Kr): 1.

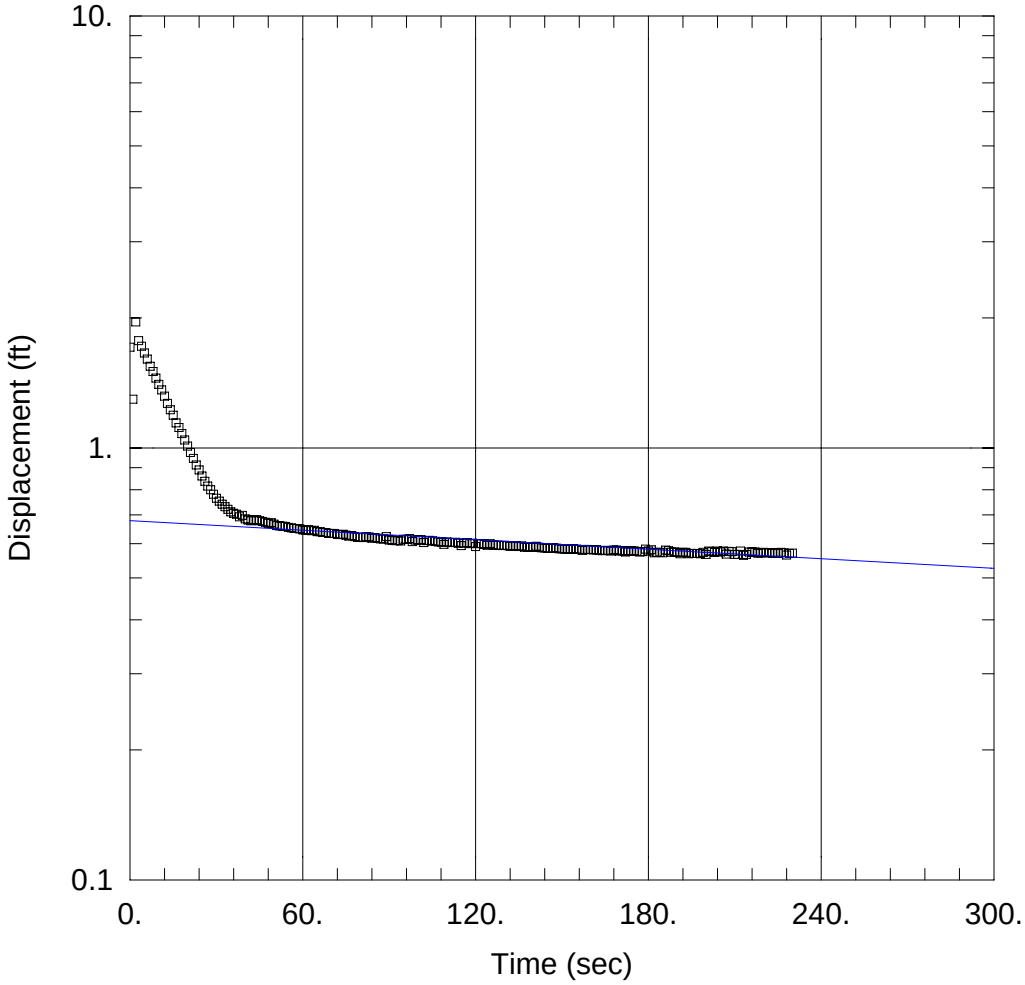
WELL DATA (1MW-5)

Initial Displacement: 1.71 ft
Total Well Penetration Depth: 7.075 ft
Casing Radius: 0.08333 ft
Static Water Column Height: 7.075 ft
Screen Length: 10. ft
Wellbore Radius: 0.2959 ft
Gravel Pack Porosity: 0.25

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 1.11E-5 ft/sec
y0 = 0.3552 ft



SLUG TEST MW-16

Data Set: I:\...\MW16.aqt
Date: 01/14/09 Time: 10:50:59

PROJECT INFORMATION

Company: Geomatrix
Client: Cedar Chemical
Project: 13636
Location: Helena AK
Test Well: MW-16
Test Date: 7/24/08

AQUIFER DATA

Saturated Thickness: 6.08 ft
Anisotropy Ratio (Kz/Kr): 1.

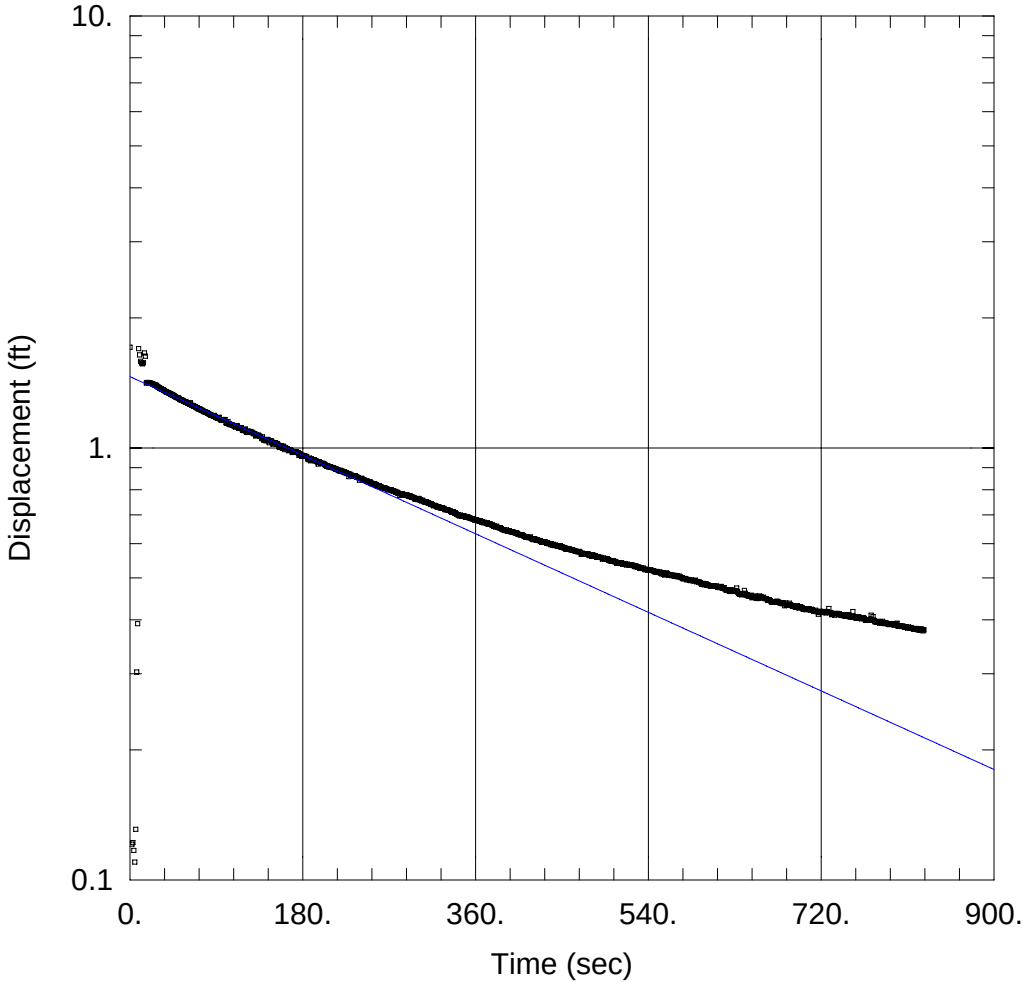
WELL DATA (MW-16)

Initial Displacement: 1.71 ft
Total Well Penetration Depth: 6.08 ft
Casing Radius: 0.08333 ft
Static Water Column Height: 6.08 ft
Screen Length: 10. ft
Wellbore Radius: 0.2959 ft
Gravel Pack Porosity: 0.25

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 2.691E-6 ft/sec
y0 = 0.6786 ft



SLUG TEST EMW-6B

Data Set: I:\...\EMW6B.aqt
Date: 01/14/09 Time: 10:50:44

PROJECT INFORMATION

Company: Geomatrix
Client: Cedar Chemical
Project: 13636
Location: Helena AK
Test Well: EMW-6B
Test Date: 7/24/08

AQUIFER DATA

Saturated Thickness: 17.17 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (EMW-6B)

Initial Displacement: 1.71 ft Static Water Column Height: 17.17 ft
Total Well Penetration Depth: 17.17 ft Screen Length: 10. ft
Casing Radius: 0.08333 ft Wellbore Radius: 0.2959 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 2.427E-6 ft/sec y0 = 1.462 ft

APPENDIX E

Drum Vault Investigation Photos

APPENDIX F

Banks Offsite Domestic Well Information

Water Well Report™

June 24, 2008

CLIENT
GEOMATRIX CONSULTANTS, INC. 5725 Highway 290 West, #200-B Austin, TX 78735

SITE
Cedar Chemical Hwy 242 @ Industrial Park Rd Helena-West Helena, AR ES37635

P.O. Box 12851, Capitol Station, Austin, TX 78711
1601 Rio Grande, Suite 500, Austin, TX 78701
512.478.0059 FAX 512.478.1433 e-mail banks@banksinfo.com
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BANKS ENVIRONMENTAL DATA
A DIVISION OF THE BANKS GROUP

Well Locations

Map of Wells Within 1 Mile

Water Wells

0 1,750 3,500 7,000 Feet

Date of Photo: 02/04/2006 Source of Photo: DigitalGlobe

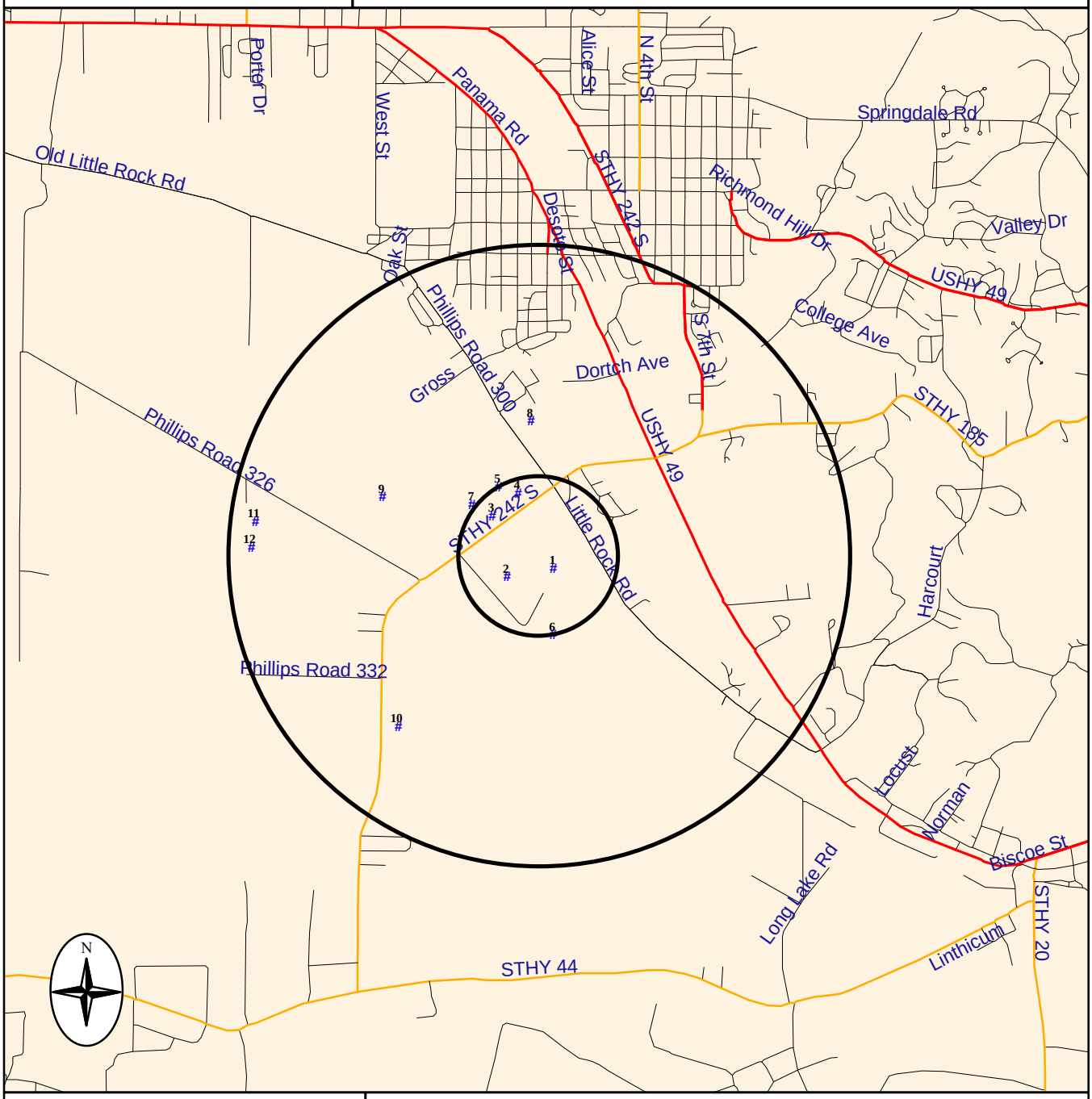
Cedar Chemical
Helena-West Helena, Arkansas

Banks Environmental Data, Inc.
1601 Rio Grande, Suite 500 Austin, TX 78701
PH 512-478-0059 FAX 512-478-1433
E-Mail: banks@banksinfo.com

N

Water Well Report™

Map of Wells within One Mile of Polygon



Subject Site
Ground Water Wells (Cluster)
Ground Water Well
Airport
Hospital
Highway
Primary road
Secondary and connecting road
Local road
Access road
Water body
Park
State

0 0.5 1 1.5 2 Miles

Banks Environmental Data, Inc.
P.O. Box 12851, Capitol Station Austin, Texas 78711
512-478-0059 FAX 512-478-1433 E Mail: BANKS@BANKSINFO.COM

June 24, 2008

Water Well Report™

DETAILS

		MAP ID
State ID	2s-4e-14	1
Banks ID	0510700012	
Owner Of Well	Norac Company Inc.	
Type Of Well	Other	
Depth Drilled	110 '	
Completion Date	9/10/1993	
Longitude	-90.64808	
Latitude	34.51975	

		MAP ID
State ID	2s-4e-14	2
Banks ID	0510700007	
Owner Of Well	Allen Hargraves	
Type Of Well	Irrigation	
Depth Drilled	105 '	
Completion Date	7/4/2003	
Longitude	-90.65167	
Latitude	34.5192	

		MAP ID
State ID	2s-4e-24	3
Banks ID	0510700018	
Owner Of Well	F. H. Totah	
Type Of Well	Irrigation	
Depth Drilled	110 '	
Completion Date	7/18/1973	
Longitude	-90.65282	
Latitude	34.5231	

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Water Well Report™

DETAILS

		MAP ID
State ID	2s-4e-24	4
Banks ID	0510700017	
Owner Of Well	F. H. Tolar	
Type Of Well	Irrigation	
Depth Drilled	100 '	
Completion Date	7/18/1973	
Longitude	-90.65082	
Latitude	34.52455	

		MAP ID
State ID	2s-4e-10	5
Banks ID	0510700009	
Owner Of Well	Terra Int.	
Type Of Well	Domestic	
Depth Drilled	125 '	
Completion Date	3/24/1995	
Longitude	-90.65235	
Latitude	34.52495	

		MAP ID
State ID	2s-4e-14	6
Banks ID	0510700016	
Owner Of Well	Bill Brothers	
Type Of Well	Irrigation	
Depth Drilled	120 '	
Completion Date	5/21/1992	
Longitude	-90.6481	
Latitude	34.51548	

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Water Well Report™

DETAILS

		MAP ID
State ID	2s-14e-14	7
Banks ID	0510700010	
Owner Of Well	Alan Hargraves	
Type Of Well	Irrigation	
Depth Drilled	125 '	
Completion Date	5/8/1989	
Longitude	-90.65439	
Latitude	34.52382	

		MAP ID
State ID	2s-4e-11	8
Banks ID	0510700001	
Owner Of Well	Jerome Pillow	
Type Of Well	Irrigation	
Depth Drilled	125 '	
Completion Date	7/29/1985	
Longitude	-90.64983	
Latitude	34.52915	

		MAP ID
State ID	2s-4e-15	9
Banks ID	0510700002	
Owner Of Well	J D Rohrschaib	
Type Of Well	Other	
Depth Drilled	60 '	
Completion Date	8/1/1979	
Longitude	-90.6613	
Latitude	34.52432	

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Water Well Report™

DETAILS

		MAP ID
State ID	2s-4e-22	10
Banks ID	0510700003	
Owner Of Well	J. D. Rohrschieb	
Type Of Well	Irrigation	
Depth Drilled	100 '	
Completion Date	6/3/1982	
Longitude	-90.66005	
Latitude	34.50963	

		MAP ID
State ID	2s-4e-15	11
Banks ID	0510700006	
Owner Of Well	Alan Hangnaues	
Type Of Well	Irrigation	
Depth Drilled	110 '	
Completion Date	3/13/1991	
Longitude	-90.67109	
Latitude	34.52273	

		MAP ID
State ID	2s-4e-15	12
Banks ID	0510700008	
Owner Of Well	Alan Hargraves	
Type Of Well	Irrigation	
Depth Drilled	110 '	
Completion Date	3/14/1991	
Longitude	-90.67141	
Latitude	34.5211	

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MAP ID

1

STATE OF ARKANSAS
REPORT ON WATER WELL CONSTRUCTION & PUMP INSTALLATION

A

1 Contractor Name & Number: Joel Jumper C# 1272
2 Driller Name & Number: JC Ford D# 2603
3 Pump Installer Name & Number: Billy Jumper P# 4386
4 Date Well Completed: 9-10-93 New Well ☑ Replace or Work-over ☐

10 LOCATE WITH 'X' IN SECTION BELOW

5 COUNTY	6 FRACTION	7 SECTION	8 TOWNSHIP	9 RANGE
Phillips	¼ of ¼ of	14	T2S	R4E

LONGITUDE 11 ____ ° ____ ' ____ "
LATITUDE 11 ____ ° ____ ' ____ "

B

1 DESCRIPTION OF FORMATION: DEPTHS IN FEET

	FROM	TO
Clay	0	40
fine sand	40	50
Coarse sand	50	110

00012001

ATTACH ADDITIONAL SHEETS IF NECESSARY

2 TOTAL DEPTH OF WELL 110 ft
3 DEPTHS TO WATER PRODUCING FORMATIONS. 45'
4 STATIC WATER LEVEL 15' Ft below land surface
5 YIELD 200 gallons per ☑ min ☐ hr
6 DIAMETER OF BORE HOLE 12 IN

C PUMP REPORT

1 TYPE PUMP: SUBMERSIBLE ☑ TURBINE ☐ JET ☐
2 SETTING DEPTH: 50 FEET
3 BRAND NAME AND SERIAL NUMBERS: F+W
4 RATED CAPACITY 85 gallons per minute
5 TYPE LUBRICATION Water
6 DROP PIPE OR COLUMN PIPE SIZE 2"
7 WIRE SIZE 12-3
8 PRESSURE TANK SIZE, MAKE, MODEL
9 DATE OF INSTALLATION OR REPAIR 9-10-93
10 Is there an abandoned water well on the property?

D

1 LAND OWNER OR OTHER CONTACT PERSON:
NAME Norac Company Inc.
STREET ADDRESS P.O. Box 2369
CITY West Helena, AR 72390

2 CASING FROM 0 TO 85 W/ 6 "ID
FROM 95 TO 100 W/ 6 "ID
TYPE CASING: PVC

3 SCREEN
TYPE: PVC 6" DIA 30 SLOT/GA
SET FROM 85 FT TO 95 FT
TYPE: PVC 6" DIA 30 SLOT/GA
SET FROM 100 FT TO 110 FT

4 GRAVEL PACK FROM 5 FT TO 110 FT
5 BACK FILLED WITH:
FROM FT TO FT
6 SEALED WITH: Cement
FROM 0 FT TO 5 FT
FROM FT TO FT
7 DISINFECTED WITH:
8 USE OF WELL:

DOMESTIC	☐	COMMERCIAL	☑
IRRIGATION	☐	MONITOR	☐
LIVESTOCK/POULTRY	☐	TEST WELL	☐
OIL/GAS SUPPLY	☐	SEMI-PUBLIC	☐
PUBLIC SUPPLY	☐	OTHER	

(A/C HEATPUMP TYPE WELLS)

SOURCE	☐	RETURN	☐
CLOSED LOOP	☐		

9 (For A/C only) Will system also be used for purposes other than Heating or Air Conditioning?
If yes, name use: yes ☐ no ☐
10 (For A/C open-loop only) Into what medium is water returned?
11 REMARKS
12 SIGNED JC Ford DATE 9-10-93

AWD-7 JAN 89 Arkansas Water Well Construction Commission, One Capitol Mall, Suite 2-C, Little Rock, AR 72201
ACI—5945

GEOLOGY COPY

MAP ID

2

STATE OF ARKANSAS
REPORT ON WATER WELL CONSTRUCTION & PUMP INSTALLATION

RECEIVED 03 SEP -2 PM 2:28 SOIL & WATER COMM.

A

1 Contractor Name & Number: Jumper Well C# 1272
2 Driller Name & Number: Billy Jumper D# 2602
3 Pump Installer Name & Number: J.C. Ford P# 4383
4 Date Well Completed: 7/4/03 New Well ☑ Replace or Work-over ☐

10 LOCATE WITH 'X' IN SECTION BELOW

5 COUNTY	6 FRACTION	7 SECTION	8 TOWNSHIP	9 RANGE
Phillips ✓	SW ¼ of NW Part of A Land Grant	¼ of 14	2S	4E

LONGITUDE 11 90 ° 39 ' ~~18~~ 10.8 " LATITUDE 11 34 ° 31 ' 25 15.04 "

B 1 DESCRIPTION OF FORMATION: DEPTHS IN FEET

	FROM	TO
Clay	0	18
fine sand	18	45
Coarse sand & Gravel	45	105

00007001

ATTACH ADDITIONAL SHEETS IF NECESSARY

2 TOTAL DEPTH OF WELL 105 ft
3 DEPTHS TO WATER PRODUCING FORMATIONS. 45
4 STATIC WATER LEVEL 8 Ft below land surface
5 YIELD 1500 gallons per ☑ min ☐ hr
6 DIAMETER OF BORE HOLE 18 IN

C PUMP REPORT

1 TYPE PUMP: SUBMERSIBLE ☑ TURBINE ☐ JET ☐
2 SETTING DEPTH: 70 FEET
3 BRAND NAME AND SERIAL NUMBERS: Gould Hitachi motor G89316E
4 RATED CAPACITY 900 gallons per minute
5 TYPE LUBRICATION
6 DROP PIPE OR COLUMN PIPE SIZE 6"
7 WIRE SIZE 6-3 with gd.
8 PRESSURE TANK . . . SIZE, MAKE, MODEL
9 DATE OF INSTALLATION OR REPAIR 7/2/03
10 Is there an abandoned water well on the property?

D 1 LAND OWNER OR OTHER CONTACT PERSON:
NAME Allen Hargraves
STREET ADDRESS 117 Highland Park Drive
CITY Helena, Ar 72342

2 CASING FROM 0 TO 65 W/ 8" ID
FROM TO W/ " ID
TYPE CASING: PVC

3 SCREEN PVC
TYPE: Slot 8 DIA 50 SLOT/GA
SET FROM 65 FT TO 105 FT
TYPE: DIA SLOT/GA
SET FROM FT TO FT

4 GRAVEL PACK FROM 0 FT TO 105 FT
5 BACK FILLED WITH: Well Gravel
FROM 0 FT TO 105 FT
6 SEALED WITH:
FROM FT TO FT
FROM FT TO FT
7 DISINFECTED WITH:
8 USE OF WELL:

DOMESTIC	☐	COMMERCIAL	☐
IRRIGATION	☑	MONITOR	☐
LIVESTOCK/POULTRY	☐	TEST WELL	☐
OIL/GAS SUPPLY	☐	SEMI-PUBLIC	☐
PUBLIC SUPPLY	☐	OTHER	

(A/C HEATPUMP TYPE WELLS)
SOURCE ☐ RETURN ☐
CLOSED LOOP ☐

9 (For A/C only) Will system also be used for purposes other than Heating or Air Conditioning?
If yes, name use: yes ☐ no ☐
10 (For A/C open-loop only) Into what medium is water returned?
11 REMARKS
12 SIGNED Billy Jumper DATE 7/4/03

AWD-7 JAN 89
ACI-5945
Arkansas Water Well Construction Commission, 101 East Capitol, Suite 350, Little Rock, AR 72201

GEOLOGY COPY

MAP ID 3

NEW WELL [X] REPLACEMENT WELL [ ]

STATE OF ARKANSAS
Report of Water Well Construction

County in which well is located: Phillips

(Please print or type)

OWNER OF WELL F. H. Total
WELL CONTRACTOR Wixson Bros. Well Serv.
CONTRACTOR LICENSE NO. C-1019
NAME OF DRILLER Marvin Speer
DRILLER REGISTRATION NO. D-2169
DATE WELL WAS COMPLETED July (MO.) ___ (DAY) 73 (YR.)

Well is near 1/2 mi So. of 242 Highway road, approximately 1 miles N NE E SE (S) SW W NW of West Helena (TOWN, ETC.)
Section 24, Township 2S, Range 4E.
Directions for reaching well: (use permanent landmarks)

1. Total Depth of Well 110 ft.
2. Water Producing Formation: From 15 ft. To 110 ft.
3. Method of Construction:
Rotary X Cable ___ Driven ___ Jetted ___ Bored ___ Dug ___
4. Water Level Below Land Surface 15 ft.
5. Gallons per Hour ___ Gallons per Minute 2000
6. Well disinfected with ___
7. Cased to 70 ft. with 12" Diameter 1/4" Casing
8. Cemented from ___ ft. to ___ ft.
9. Casing Perforated from 70 ft. to 110 ft.
10. Well Backfilled with: gravel (SAND, CLAY, CEMENT, MUD) from 10 ft. to 110 ft.
11. Gravel Pack from 10 ft. to 110 ft.
12. Screen Diameter: 12" inches from 70' ft. to 110 ft.
13. Type Screen slotted Fittings welded Slot Size 1/16
14. Use of Well:
DOMESTIC ___ IRRIGATION X MUNICIPAL ___ OTHER ___

Description and Color of Formation: (Sand, Shale, Sandstone, etc.)	Depths in Feet From	To
Clay	0'	10'
fine sand	10'	50'
Course sand & gravel	50'	110'

Remarks:

00018001

Signed: W. H. Oakley

Date: July (MONTH) 18 (DAY) 1973 (YEAR)

Mail to: Committee on Water Well Construction — 3815 W. Roosevelt Road — Little Rock, Arkansas 72204

GEOLOGY COPY

FORM NO. WD-1

MAP ID 4

NEW WELL [X] REPLACEMENT WELL [ ]

STATE OF ARKANSAS
Report of Water Well Construction

County in which well is located: Phillips [redacted]

(Please print or type)

OWNER OF WELL: J. H. Solar
WELL CONTRACTOR: Wilson Bros. Well Ser.
CONTRACTOR LICENSE NO.: C-1019
NAME OF DRILLER: Marvin Spurr
DRILLER REGISTRATION NO.: D-2169
DATE WELL WAS COMPLETED: July 20 (DAY) 73 (YR.)

Well is near: 1/2 mi. South of 242 Hwy road, approximately 1 miles N NE E SE (S) SW W NW of West Helena (TOWN, ETC.)
Section 34, Township 2 S, Range 4 E.
Directions for reaching well: (use permanent landmarks)

1. Total Depth of Well: 100 ft.
2. Water Producing Formation: From 15 ft. To 100 ft.
3. Method of Construction:
Rotary X Cable ___ Driven ___ Jetted ___ Bored ___ Dug ___
4. Water Level Below Land Surface: 15 ft.
5. Gallons per Hour ___ Gallons per Minute 2000
6. Well disinfected with ___
7. Cased to 60 ft. with 12" Diameter 1/4" Casing
8. Cemented from ___ ft. to ___ ft.
9. Casing Perforated from 60 ft. to 100 ft.
10. Well Backfilled with: Gravel (SAND, CLAY, CEMENT, MUD) from 10 ft. to 100 ft.
11. Gravel Pack from 10 ft. to 100 ft.
12. Screen Diameter: 12" inches from 60 ft. to 100 ft.
13. Type Screen: slotted Fittings: Welded Slot Size: 1/16
14. Use of Well: DOMESTIC ___ IRRIGATION X MUNICIPAL ___ OTHER ___

Description and Color of Formation: (Sand, Shale, Sandstone, etc.)	Depths in Feet From	To
Clay	0'	10'
fine sand	10'	50'
Course sand + gravel	50'	100'

Remarks:

00017001

Signed: W. H. Oakley
Date: July (MONTH) 18 (DAY) 73 (YEAR)

Mail to: Committee on Water Well Construction — 3815 W. Roosevelt Road — Little Rock, Arkansas 72204

GEOLOGY COPY

FORM NO. WD-1

MAP ID

5

STATE OF ARKANSAS
REPORT ON WATER WELL CONSTRUCTION & PUMP INSTALLATION

A

1 Contractor Name & Number: Joel Jumper C# 1272
2 Driller Name & Number: J C Ford D# 2603
3 Pump Installer Name & Number: Billy Jumper P# 4386
4 Date Well Completed: 3/24/95 New Well ☑ Replace or Work-over ☐

10 LOCATE WITH 'X' IN SECTION BELOW

5 COUNTY	6 FRACTION	7 SECTION	8 TOWNSHIP	9 RANGE
Phillips	¼ of ¼ of	10	T2S	R4E

LONGITUDE 11 ___ ° ___ ' ___ "
LATITUDE 11 ___ ° ___ ' ___ "

B

1 DESCRIPTION OF FORMATION: DEPTHS IN FEET

	FROM	TO
clay	0	60
fine sand	60	105
Coarse sand	105	125

00009001

ATTACH ADDITIONAL SHEETS IF NECESSARY

2 TOTAL DEPTH OF WELL 125 ft
3 DEPTHS TO WATER PRODUCING FORMATIONS 70'
4 STATIC WATER LEVEL 45' Ft below land surface
5 YIELD 60 gallons per ☑ min ☐ hr
6 DIAMETER OF BORE HOLE 8 IN

C PUMP REPORT

1 TYPE PUMP: SUBMERSIBLE ☑ TURBINE ☐ JET ☐
2 SETTING DEPTH: 70 FEET
3 BRAND NAME AND SERIAL NUMBERS: National 4560843
4 RATED CAPACITY 45 gallons per minute.
5 TYPE LUBRICATION Water
6 DROP PIPE OR COLUMN PIPE SIZE 1½
7 WIRE SIZE 12-3
8 PRESSURE TANK SIZE, MAKE, MODEL 120 gallon pressure Tank
9 DATE OF INSTALLATION OR REPAIR 3/24/95
10 Is there an abandoned water well on the property?

D

1 LAND OWNER OR OTHER CONTACT PERSON:
NAME Terra Int.
STREET ADDRESS Hwy 242
CITY Helena, AR 72342

2 CASING FROM 0 TO 105 W/ 1½ "ID
FROM TO W/ "ID
TYPE CASING: PVC

3 SCREEN
TYPE: PVC 1½ DIA 13 SLOT/GA
SET FROM 105 FT TO 125 FT
TYPE: DIA SLOT/GA
SET FROM FT TO FT

4 GRAVEL PACK FROM 0 FT TO 125 FT

5 BACK FILLED WITH:
FROM FT TO FT

6 SEALED WITH:
FROM FT TO FT
FROM FT TO FT

7 DISINFECTED WITH: Chlorine

8 USE OF WELL:

DOMESTIC	☑	COMMERCIAL	☐
IRRIGATION	☐	MONITOR	☐
LIVESTOCK/POULTRY	☐	TEST WELL	☐
OIL/GAS SUPPLY	☐	SEMI-PUBLIC	☐
PUBLIC SUPPLY	☐	OTHER	

(A/C HEATPUMP TYPE WELLS)

SOURCE	☐	RETURN	☐
CLOSED LOOP	☐		

9 (For A/C only) Will system also be used for purposes other than Heating or Air Conditioning?
If yes, name use: yes ☐ no ☐

10 (For A/C open-loop only) Into what medium is water returned?

11 REMARKS

12 SIGNED J C Ford DATE 3/24/95

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ACI—5945

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MAP ID

6

STATE OF ARKANSAS
REPORT ON WATER WELL CONSTRUCTION & PUMP INSTALLATION

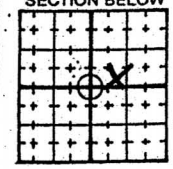
A

1 Contractor Name & Number: Jack Jumper C# 1272
2 Driller Name & Number: J C Ford D# 2603
3 Pump Installer Name & Number: J C Ford P# 4383
4 Date Well Completed: 5/21/92 New Well ☑ Replace or Work-over ☐

5 COUNTY	6 FRACTION	7 SECTION	8 TOWNSHIP	9 RANGE
Phillips	¼ of ¼ of	14	T2S	R4E

LONGITUDE 11 ___ ° ___ ' ___ " LATITUDE 11 ___ ° ___ ' ___ "

10 LOCATE WITH 'X' IN SECTION BELOW



B 1 DESCRIPTION OF FORMATION: DEPTHS IN FEET

	FROM	TO
clay	0	40
fine sand	40	70
Coarse sand	70	100
gravel	100	120

ATTACH ADDITIONAL S...

00016001

2 TOTAL DEPTH OF WELL 120 ft
3 DEPTHS TO WATER PRODUCING FORMATIONS. ~~40~~
4 STATIC WATER LEVEL 20 Ft below land surface
5 YIELD 500 gallons per ☒ min ☐ hr
6 DIAMETER OF BORE HOLE 12 IN

C PUMP REPORT

1 TYPE PUMP: SUBMERSIBLE ☒ TURBINE ☐ JET ☐
2 SETTING DEPTH: FEET 60'
3 BRAND NAME AND SERIAL NUMBERS: Hi-Kite
4 RATED CAPACITY 350 gallons per minute
5 TYPE LUBRICATION Water
6 DROP PIPE OR COLUMN PIPE SIZE 4"
7 WIRE SIZE 6-3
8 PRESSURE TANK . . . SIZE, MAKE, MODEL --
9 DATE OF INSTALLATION OR REPAIR 5/22/92
10 Is there an abandoned water well on the property?

D 1 LAND OWNER OR OTHER CONTACT PERSON:
NAME Bill Brothers
STREET ADDRESS
CITY Helena Ark

2 CASING FROM 0 TO 80 W/ 6 "ID
FROM TO W/ "ID
TYPE CASING: PVC

3 SCREEN
TYPE: PVC 6" DIA 50 SLOT/GA
SET FROM 80 FT TO 120 FT
TYPE: DIA SLOT/GA
SET FROM FT TO FT

4 GRAVEL PACK FROM 0 FT TO 120 FT
5 BACK FILLED WITH:
FROM FT TO FT
6 SEALED WITH:
FROM FT TO FT
FROM FT TO FT
7 DISINFECTED WITH:
8 USE OF WELL:

DOMESTIC	☐	COMMERCIAL	☐
IRRIGATION	☒	MONITOR	☐
LIVESTOCK/POULTRY	☐	TEST WELL	☐
OIL/GAS SUPPLY	☐	SEMI-PUBLIC	☐
PUBLIC SUPPLY	☐	OTHER	

(A/C HEATPUMP TYPE WELLS)
SOURCE ☐ RETURN ☐
CLOSED LOOP ☐

9 (For A/C only) Will system also be used for purposes other than Heating or Air Conditioning?
If yes, name use: yes ☐ no ☐
10 (For A/C open-loop only) Into what medium is water returned?
11 REMARKS
12 SIGNED J C Ford DATE

AWD-7 JAN 89 Arkansas Water Well Construction Commission, One Capitol Mall, Suite 2-C, Little Rock, AR 72201
ACI—5945

geology ~~COMMISSION~~ COPY

MAP ID

7

STATE OF ARKANSAS
REPORT OF WATER WELL CONSTRUCTION

1 CONTRACTOR Name and number Joel Jumper C. 1272

DRILLER Name and number J C Ford D. 2603

2 LOCATION / IDENTIFICATION DATE WELL COMPLETED 5-8-89 NEW WELL [X] WORK-OVER [ ]

(a) COUNTY Phillips (b) FRACTION ¼ of ¼ of (c) SECTION 14 (d) TOWNSHIP T2S (e) RANGE R4E

(f) LOCATE WITH 'X' IN SECTION BELOW (g) SKETCH MAP

(h) OWNER OF WELL:
NAME Alan Hargraves
STREET ADDRESS
CITY Helena, Ark

(i) OPERATOR:
NAME
STREET ADDRESS
CITY

3 DESCRIPTION OF FORMATION: DEPTHS IN FEET

	FROM	TO
clay	0	20
fine sand	20	70
Coarse sand	70	100
gravel	100	125

00010001

ATTACH ADDITIONAL SHEETS IF NECESSARY

4 TOTAL DEPTH OF WELL 125 ft

5 WATER PRODUCING FORMATION? 30

6 STATIC WATER LEVEL 15 Ft below land surface

7 YIELD 1200 gallons per [X] min [ ] hr

8 DIAMETER OF BORE HOLE 14 IN

9 CASING FROM 0 TO 125 W/ 8 "ID
FROM TO W/ "ID
TYPE CASING PVC

10 SCREEN:
TYPE PVC 8 DIA 50 SLOT/GA
SET BETWEEN 85 ft and 125 ft
TYPE DIA SLOT/GA
SET BETWEEN ft and ft

11 GRAVEL PACK FROM 0 ft and 125 ft

12 BACK FILLED WITH
FROM ft to ft

13 SEALED WITH
FROM ft to ft
FROM ft to ft

14 DISINFECTED WITH:

15 USE OF WELL:
SOURCE WELL [ ] RETURN WELL [ ]
A/C CLOSED LOOP [ ] A/C OPEN LOOP [ ]

16 PURPOSE:
DOMESTIC [ ] MUNICIPAL [ ]
COMMERCIAL [ ] TEST WELL [ ]
OIL AND GAS [ ] MONITOR [ ]
AGRI/IRRIGATION [X] PUBLIC SUPPLY [ ]
OTHER [ ]

17 (For A/C only) WILL SYSTEM ALSO BE USED FOR PURPOSES OTHER THAN A/C? YES [ ] NO [ ]
(IF YES NAME USE)

18 (For A/C only) INTO WHAT MEDIUM IS WATER RETURNED?

19 REMARKS:

20 SIGNED J C Ford DATE 5-17-89

RECEIVED JUN 8 1989

AWD-4 JAN 1988 Arkansas Waterwell Construction Commission 2915 South Pine, Little Rock, AR 72204

GEOLOGY COPY

MAP ID 8

STATE OF ARKANSAS

REPORT OF WATER WELL CONSTRUCTION

New Well ✓ Work-over Well ____ Replacement Well ____

Owner of Well Jerome Fillow

Contractor Joel Jumper C1272

Driller Name and No. Billy Jumper D2602

Date Well was Completed 7-29-85

1. Total Depth of Well 125 Ft.
2. Water Producing Formation: From 75 Ft. To 125 Ft.
3. Water Level Below Land Surface 34'
4. Gallons per Hour 45,000
5. Well Disinfected with Chlorine
6. Casing to 95' Ft.
7. Cased with PVC Diameter 10" Casing
8. Cemented from ____ Ft. to ____ Ft.
9. Use of Well: Domestic ____ Irrigation ✓ Municipal ____ Other ____

County Phillips Co. (in which well is located)

Well is near 7th St. Road

Section 11 Township T2S Range R4E

Directions for Reaching Well: (use permanent landmark) Old Little Rock Rd

Description and Color of Formation (sand, shale, sandstone, etc.)	Depths in feet from	to
Clay	0	75
fine sand	75	95
Coarse sand	95	125

Remarks:

Signed: J C Ford Date: 7-29-85

Form No. AWD-3

Mail to: Committee on Water Well Construction, 2915 So. Pine Street, Little Rock, Arkansas 72204

COMMITTEE COPY

00001001

MAP ID 9

STATE OF ARKANSAS

REPORT OF WATER WELL CONSTRUCTION

New Well ✓ Work-over Well ..... Replacement Well .....

Owner of Well J D Rohrscheib

Well Contractor Joel Jumper

Contractor License No. C 1272

Driller Name and No. Joel Jumper D-2534

Date Well was Completed 8-10-79

1. Total Depth of Well 60 Ft.
2. Water Producing Formation: From 30 Ft. To 60 Ft.
3. Water Level Below Land Surface 10 ft
4. Gallons per Hour 60
5. Well Disinfected with .....
6. Casing to 1 to 55 Ft.
7. Cased with galv Diameter 2" Casing
8. Cemented from 1 Ft. to 5 Ft.
9. Use of Well: Domestic Irrigation Municipal Other ✓

This well is guaranteed against defective material or workmanship for a period of One year

County Phillips (in which well is located)

Well is near West Helena Road

Section 15 Township T2S Range R4E

Directions for Reaching Well: go south on 242 (use permanent landmark) from West Helena 6 miles

Description and Color of Formation (sand, shale, sandstone, etc.)	Depths from	in feet to
clay	1	10
fine sand	10	25
coarse sand	25	50
coarse sand + gravel	50	60

Remarks:

Signed: Joel Jumper Date: 8-1-79

Form No. AWD-2

Mail to: Committee on Water Well Construction, 2915 So. Pine Street, Little Rock, Arkansas 72204.

Geology Copy

00002001

MAP ID 10

STATE OF ARKANSAS

REPORT OF WATER WELL CONSTRUCTION

New Well ✓ Work-over Well ____ Replacement Well ____

Owner of Well: J. D. Rohrschieb

Well Contractor: Joe Jumper

Contractor License No.: C1272

Driller Name and No.: JC Ford Jr D2603

Date Well was Completed: 6-3-82

1. Total Depth of Well: 100' Ft.
2. Water Producing Formation: From 15' Ft. To 100' Ft.
3. Water Level Below Land Surface: 15
4. Gallons per Hour: 36,000
5. Well Disinfected with: Chlorine
6. Casing to: 60' Ft.
7. Cased with: PVC Diameter: 8" Casing
8. Cemented from ____ Ft. to ____ Ft.
9. Use of Well: Domestic ____ Irrigation ✓ Municipal ____ Other ____

This well is guaranteed against defective material or workmanship for a period of: One year

County: Phillips (in which well is located)

Well is near: 7th Street Road

Section: 22 Township: T2S Range: R4E

Directions for Reaching Well: One mile southwest Ver by Plant (use permanent landmark)

Description and Color of Formation (sand, shale, sandstone, etc.)	Depths in feet from	to
Clay	0'	10'
fine sand	10'	30'
Coarse sand	30'	100'

Remarks:

Signed: JC Ford Date: 6/3/82

Form No. AWD-2

Mail to: Committee on Water Well Construction, 2915 So. Pine Street, Little Rock, Arkansas 72204.

Geology Copy

00003001

MAP ID

11

STATE OF ARKANSAS
REPORT ON WATER WELL CONSTRUCTION & PUMP INSTALLATION

A

1 Contractor Name & Number: Joel Jimpson — C# 1272
2 Driller Name & Number: Billy Jimpson — D# 2602
3 Pump Installer Name & Number: JC Ford — P# 4383
4 Date Well Completed: 3/13/91 — New Well ☑ Replace or Work-over ☐

10 LOCATE WITH 'X' IN SECTION BELOW

5 COUNTY	6 FRACTION	7 SECTION	8 TOWNSHIP	9 RANGE
Phillips	¼ of ¼ of	15	T2S	R4E

LONGITUDE 11 ___ ° ___ ' ___ " LATITUDE 11 ___ ° ___ ' ___ "

B 1 DESCRIPTION OF FORMATION: DEPTHS IN FEET

	FROM	TO
Clay	0	20
fine sand	20	55
Coarse sand + Gravel	55	110

00006001

ATTACH ADDITIONAL SHEETS IF NECESSARY

2 TOTAL DEPTH OF WELL 110 ft
3 DEPTHS TO WATER PRODUCING FORMATIONS: 55
4 STATIC WATER LEVEL 5 Ft below land surface
5 YIELD 2500 gallons per ☐ min ☐ hr
6 DIAMETER OF BORE HOLE 26 IN

C PUMP REPORT

1 TYPE PUMP: SUBMERSIBLE ☐ TURBINE ☑ JET ☐
2 SETTING DEPTH: 50 FEET
3 BRAND NAME AND SERIAL NUMBERS: Peerless 3233-91
4 RATED CAPACITY 990 gallons per minute
5 TYPE LUBRICATION Water
6 DROP PIPE OR COLUMN PIPE SIZE
7 WIRE SIZE
8 PRESSURE TANK . . SIZE, MAKE, MODEL
9 DATE OF INSTALLATION OR REPAIR 3/24/91
10 Is there an abandoned water well on the property?

D 1 LAND OWNER OR OTHER CONTACT PERSON:
NAME Alan Hanagans
STREET ADDRESS 125 Mill Rd
CITY Helena, Ark

2 CASING FROM 0 TO 70 W/ 12 "ID
FROM TO W/ "ID
TYPE CASING: Steel

3 SCREEN Agri
TYPE: Slot DIA 12 SLOT/GA 40
SET FROM 70 FT TO 110 FT
TYPE: DIA SLOT/GA
SET FROM FT TO FT

4 GRAVEL PACK 0 FROM 110 FT TO FT
5 BACK FILLED WITH: Well Gravel
FROM 0 FT TO 110 FT
6 SEALED WITH:
FROM FT TO FT
FROM FT TO FT
7 DISINFECTED WITH:
8 USE OF WELL:

DOMESTIC	☐	COMMERCIAL	☐
IRRIGATION	☑	MONITOR	☐
LIVESTOCK/POULTRY	☐	TEST WELL	☐
OIL/GAS SUPPLY	☐	SEMI-PUBLIC	☐
PUBLIC SUPPLY	☐	OTHER	

(A/C HEATPUMP TYPE WELLS)
SOURCE ☐ RETURN ☐
CLOSED LOOP ☐

9 (For A/C only) Will system also be used for purposes other than Heating or Air Conditioning?
If yes, name use: yes ☐ no ☐
10 (For A/C open-loop only) Into what medium is water returned?
11 REMARKS
12 SIGNED Billy Jimpson DATE

AWD-7 JAN 89 Arkansas Water Well Construction Commission, One Capitol Mall, Suite 2-C, Little Rock, AR 72201
ACI—5945

GEOLOGY COPY

MAP ID

12

STATE OF ARKANSAS
REPORT ON WATER WELL CONSTRUCTION & PUMP INSTALLATION

A

1 Contractor Name & Number: Jack Jumper C# 1272
2 Driller Name & Number: Billy Jumper D# 2602
3 Pump Installer Name & Number: J C Ford P# 4383
4 Date Well Completed: 3/14/91 New Well ☑ Replace or Work-over ☐

10 LOCATE WITH 'X' IN SECTION BELOW

5 COUNTY	6 FRACTION	7 SECTION	8 TOWNSHIP	9 RANGE
Phillips	¼ of ¼ of	15	T2S	R4E

LONGITUDE 11 ___ ° ___ ' ___ "
LATITUDE 11 ___ ° ___ ' ___ "

B 1 DESCRIPTION OF FORMATION: DEPTHS IN FEET

	FROM	TO
Clay	0	20
fine sand	20	55
Coarse sand & Gravel	55	110

00008001

ATTACH ADDITIONAL SHEETS IF NECESSARY

2 TOTAL DEPTH OF WELL 110 ft
3 DEPTHS TO WATER PRODUCING FORMATIONS: 55
4 STATIC WATER LEVEL 5 Ft below land surface
5 YIELD 2500 gallons per ☐ min ☐ hr
6 DIAMETER OF BORE HOLE 26 IN

C PUMP REPORT

1 TYPE PUMP: SUBMERSIBLE ☐ TURBINE ☑ JET ☐
2 SETTING DEPTH: 50 FEET
3 BRAND NAME AND SERIAL NUMBERS: Pioneer 3232-91
4 RATED CAPACITY 990 gallons per minute
5 TYPE LUBRICATION Water
6 DROP PIPE OR COLUMN PIPE SIZE: 8
7 WIRE SIZE
8 PRESSURE TANK SIZE, MAKE, MODEL
9 DATE OF INSTALLATION OR REPAIR 3/25/91
10 Is there an abandoned water well on the property?

D 1 LAND OWNER OR OTHER CONTACT PERSON:
NAME Alan Hargraves
STREET ADDRESS 125 Neil Rd
CITY Helena, Ark

2 CASING FROM 0 TO 70 W/ 12 "ID
FROM TO W/ "ID
TYPE CASING: Steel

3 SCREEN TYPE: Agri Slot DIA 12 SLOT/GA 40
SET FROM 70 FT TO 110 FT
TYPE: DIA SLOT/GA
SET FROM FT TO FT

4 GRAVEL PACK FROM 0 FT TO 110 FT
5 BACK FILLED WITH: Well Gravel
FROM 0 FT TO 10 FT
6 SEALED WITH:
FROM FT TO FT
FROM FT TO FT
7 DISINFECTED WITH:
8 USE OF WELL:

DOMESTIC	☐	COMMERCIAL	☐
IRRIGATION	☑	MONITOR	☐
LIVESTOCK/POULTRY	☐	TEST WELL	☐
OIL/GAS SUPPLY	☐	SEMI-PUBLIC	☐
PUBLIC SUPPLY	☐	OTHER	

(A/C HEATPUMP TYPE WELLS)
SOURCE ☐ RETURN ☐
CLOSED LOOP ☐

9 (For A/C only) Will system also be used for purposes other than Heating or Air Conditioning?
If yes, name use: yes ☐ no ☐
10 (For A/C open-loop only) Into what medium is water returned?
11 REMARKS
12 SIGNED Billy Jumper DATE

AWD-7 JAN 89 Arkansas Water Well Construction Commission, One Capitol Mall, Suite 2-C, Little Rock, AR 72201
ACI-5985

GEOLOGY COPY

Water Well Report™ Research Mapping Protocol

Banks Information Solutions, Inc. Water Well Report™ is prepared from an existing state water well database maintained by the Arkansas Geology Commission located in Little Rock, Arkansas. In Arkansas, water wells are located within a grid system using section, township, and range. The locations of these wells on the enclosed map were plotted using a GIS program, ArcView 3.2, with the aid of the section, township, and range provided by the database report.

Banks Information Solutions, Inc. has performed a thorough and diligent search of all groundwater well information provided and recorded with the Arkansas Geology Commission. All mapped locations are based on information obtained from the AGC. Although Banks performs quality assurance and quality control on all research projects, we recognize that any inaccuracies of the records and mapped well locations could possibly be traced to the appropriate regulatory authority or the actual driller. It may be possible that some water well schedules and logs have never been submitted to the regulatory authority by the water driller and, thus, may explain the possible unaccountability of privately drilled wells. It is uncertain if the above listing provides 100% of the existing wells within the area of review. Therefore, Banks Information Solutions, Inc. cannot fully guarantee the accuracy of the data or well location(s) of those maps and records maintained by the Arkansas regulatory authorities.

APPENDIX G

Well Abandonment Logs/Forms

STATE OF ARKANSAS
REPORT ON WATER WELL CONSTRUCTION & PUMP INSTALLATION

A

1 Contractor Name & Number: Boart Longyear C# A1532

2 Driller Name & Number: Ricky Davis D# A2769

3 Pump Installer Name & Number: P#

4 Date Well Completed: 11-6-08 New Well ☐ Replace or Work-over ☒

10 LOCATE WITH 'X' IN SECTION BELOW

5 COUNTY	6 FRACTION	7 SECTION	8 TOWNSHIP	9 RANGE
	¼ of	¼ of	2S	4E

LONGITUDE 11 090 ° 39 ' 05 "

LATITUDE 11 34 ° 31 ' 15 "

B

1 DESCRIPTION OF FORMATION: DEPTHS IN FEET

FROM	TO
Abandon Well MW-1.	
Overdrill and remove materials. 2"	

ATTACH ADDITIONAL SHEETS IF NECESSARY

2 TOTAL DEPTH OF WELL 39 ft

3 DEPTHS TO WATER PRODUCING FORMATIONS.

4 STATIC WATER LEVEL Ft below land surface

5 YIELD gallons per ☐ min ☐ hr

6 DIAMETER OF BORE HOLE 6 IN

C PUMP REPORT

1 TYPE PUMP: SUBMERSIBLE ☐ TURBINE ☐ JET ☐

2 SETTING DEPTH: FEET

3 BRAND NAME AND SERIAL NUMBERS:

4 RATED CAPACITY gallons per minute

5 TYPE LUBRICATION

6 DROP PIPE OR COLUMN PIPE SIZE

7 WIRE SIZE

8 PRESSURE TANK . . . SIZE, MAKE, MODEL

9 DATE OF INSTALLATION OR REPAIR

10 Is there an abandoned water well on the property?

D

1 LAND OWNER OR OTHER CONTACT PERSON:

NAME Cedar Chemical

STREET ADDRESS 49 Phillips Road

CITY West Helena, AR

2 CASING FROM TO W/ "ID

FROM TO W/ "ID

TYPE CASING:

3 SCREEN

TYPE: DIA SLOT/GA

SET FROM FT TO FT

TYPE: DIA SLOT/GA

SET FROM FT TO FT

4 GRAVEL PACK FROM FT TO

5 BACK FILLED WITH:

FROM FT TO FT

6 SEALED WITH: Cement Grout

FROM 0 FT TO 39 FT

FROM FT TO FT

7 DISINFECTED WITH:

8 USE OF WELL:

DOMESTIC	☐	COMMERCIAL	
IRRIGATION	☐	MONITOR	✓
LIVESTOCK/POULTRY	☐	TEST WELL	
OIL/GAS SUPPLY	☐	SEMI-PUBLIC	
PUBLIC SUPPLY	☐	OTHER	

(A/C HEATPUMP TYPE WELLS)

SOURCE	☐	RETURN	
CLOSED LOOP	☐		

9 (For A/C only) Will system also be used for purposes other tha Heating or Air Conditioning?

If yes, name use: yes ☐ nol

10 (For A/C open-loop only) Into what medium is water returne

11 REMARKS

12 SIGNED [signature] DATE 11-12-08

BOART LONGYEAR

WELL/BORING ABANDONMENT FORM

CLIENT: Geo Matrix

LOCATION: Cedar Chemical

JOB NO.: 3436-0112

WELL/BORING NO.: MW-1

CHIEF: Hartley

REASON FOR ABANDONMENT: _____

DATE OF ABANDONMENT: 11-6-08

Construction Type: Drilled ✓ Driven ____ Other _____

Formation Type: Unconsolidated ✓ Bedrock ____

Sealing Method: Gravity ____ Pumped ✓ Other _____

Sealing Materials: Bentonite Chips ____ Cement-Bent. ✓ Other ____

SEALING MATERIAL	FROM (FT.)	TO (FT.)	# BAGS OR VOLUME
Cement Betonite	39	Ø	8 bags 60 gal

WELL INFORMATION ONLY

Total Well Depth: 39

Screen Removed? yes

Casing Diameter: 2"

Overdrilled? yes

Casing Depth: 39

Casing Pulled? yes

Depth to Water: N/A

Cut Below Surface? N/A

SUPPLIES USED:

HOLEPLUG ____ bags

GROUT ____ gal.

OTHER

STATE OF ARKANSAS
REPORT ON WATER WELL CONSTRUCTION & PUMP INSTALLATION

A

1 Contractor Name & Number: Boart Longyear C# A1532

2 Driller Name & Number: Ricky Davis D# A2769

3 Pump Installer Name & Number: P#

4 Date Well Completed: New Well ☐ Replace or Work-over ☒

10 LOCATE WITH 'X' IN SECTION BELOW

5 COUNTY	6 FRACTION	7 SECTION	8 TOWNSHIP	9 RANGE
	¼ of ¼ of		2S	4E

LONGITUDE 11 090 ° 39 ' 00 "

LATITUDE 11 34 ° 31 ' 13 "

B

1 DESCRIPTION OF FORMATION: DEPTHS IN FEET

	FROM	TO
Abandon Well		
Overdrill and remove materials. 2"		

ATTACH ADDITIONAL SHEETS IF NECESSARY

2 TOTAL DEPTH OF WELL 46 ft

3 DEPTHS TO WATER PRODUCING FORMATIONS.

4 STATIC WATER LEVEL Ft below land surface

5 YIELD gallons per ☐ min ☐ hr

6 DIAMETER OF BORE HOLE 6 IN

C PUMP REPORT

1 TYPE PUMP: SUBMERSIBLE ☐ TURBINE ☐ JET ☐

2 SETTING DEPTH: FEET

3 BRAND NAME AND SERIAL NUMBERS:

4 RATED CAPACITY gallons per minute

5 TYPE LUBRICATION

6 DROP PIPE OR COLUMN PIPE SIZE

7 WIRE SIZE

8 PRESSURE TANK . . . SIZE, MAKE, MODEL

9 DATE OF INSTALLATION OR REPAIR

10 Is there an abandoned water well on the property?

D

1 LAND OWNER OR OTHER CONTACT PERSON:

NAME Cedar Chemical

STREET ADDRESS 49 Phillips Road

CITY West Helena AR

2 CASING FROM TO W/ "ID

FROM TO W/ "ID

TYPE CASING:

3 SCREEN

TYPE: DIA SLOT/GA

SET FROM FT TO FT

TYPE: DIA SLOT/GA

SET FROM FT TO FT

4 GRAVEL PACK FROM FT TO

5 BACK FILLED WITH:

FROM FT TO FT

6 SEALED WITH: Cement Grout

FROM 0 FT TO 46 FT

FROM FT TO FT

7 DISINFECTED WITH:

8 USE OF WELL:

DOMESTIC	☐	COMMERCIAL	
IRRIGATION	☐	MONITOR	✓
LIVESTOCK/POULTRY	☐	TEST WELL	
OIL/GAS SUPPLY	☐	SEMI-PUBLIC	
PUBLIC SUPPLY	☐	OTHER	

(A/C HEATPUMP TYPE WELLS)

SOURCE	☐	RETURN	
CLOSED LOOP	☐		

9 (For A/C only) Will system also be used for purposes other tha Heating or Air Conditioning?

If yes, name use: yes ☐ no

10 (For A/C open-loop only) Into what medium is water returne

11 REMARKS

12 SIGNED Ricky Davis DATE 11-12-08

BOART LONGYEAR

WELL/BORING ABANDONMENT FORM

CLIENT: Geo Matrix

LOCATION: Cedar Chemical

JOB NO.: 3436-012

WELL/BORING NO.: Unknown 7

CHIEF: Hartley

REASON FOR ABANDONMENT: _____

DATE OF ABANDONMENT: 11-6-08

Construction Type: Drilled ✓ Driven ____ Other _____

Formation Type: Unconsolidated ✓ Bedrock ____

Sealing Method: Gravity ____ Pumped ✓ Other _____

Sealing Materials: Bentonite Chips ____ Cement-Bent. ✓ Other ____

SEALING MATERIAL	FROM (FT.)	TO (FT.)	# BAGS OR VOLUME
Cement Betonite	46	∅	8 Bags 60gal

WELL INFORMATION ONLY

Total Well Depth: 46

Screen Removed? yes

Casing Diameter: 2"

Overdrilled? yes

Casing Depth: 46

Casing Pulled? yes

Depth to Water: N/A

Cut Below Surface? N/A

SUPPLIES USED:

HOLEPLUG ____ bags

GROUT ____ gal.

OTHER

STATE OF ARKANSAS
REPORT ON WATER WELL CONSTRUCTION & PUMP INSTALLATION

A

1 Contractor Name & Number: Boart Longyear C# A1532

2 Driller Name & Number: Ricky Davis D# A2269

3 Pump Installer Name & Number: P#

4 Date Well Completed: 11-5-08 New Well ☐ Replace or Work-over ☒

10 LOCATE WITH 'X' IN SECTION BELOW

5 COUNTY	6 FRACTION	7 SECTION	8 TOWNSHIP	9 RANGE
	¼ of ¼ of		2 S	4 E

LONGITUDE 11 090 ° 39 ' 13 "

LATITUDE 11 34 ° 31 ' 11 "

B

1 DESCRIPTION OF FORMATION: DEPTHS IN FEET

	FROM	TO
Abandon Well		
Over drill and remove materials. 2"		

ATTACH ADDITIONAL SHEETS IF NECESSARY

2 TOTAL DEPTH OF WELL 50 ft

3 DEPTHS TO WATER PRODUCING FORMATIONS.

4 STATIC WATER LEVEL Ft below land surface

5 YIELD gallons per ☐ min ☐ hr

6 DIAMETER OF BORE HOLE 6 IN

C PUMP REPORT

1 TYPE PUMP: SUBMERSIBLE ☐ TURBINE ☐ JET ☐

2 SETTING DEPTH: FEET

3 BRAND NAME AND SERIAL NUMBERS:

4 RATED CAPACITY gallons per minute

5 TYPE LUBRICATION

6 DROP PIPE OR COLUMN PIPE SIZE

7 WIRE SIZE

8 PRESSURE TANK . . . SIZE, MAKE, MODEL

9 DATE OF INSTALLATION OR REPAIR

10 Is there an abandoned water well on the property?

D

1 LAND OWNER OR OTHER CONTACT PERSON:

NAME Cedar Chemical

STREET ADDRESS 49 Phillips Road

CITY West Helena AR

2 CASING FROM TO W/ "ID

FROM TO W/ "ID

TYPE CASING:

3 SCREEN

TYPE: DIA SLOT/GA

SET FROM FT TO FT

TYPE: DIA SLOT/GA

SET FROM FT TO FT

4 GRAVEL PACK FROM FT TO

5 BACK FILLED WITH:

FROM FT TO FT

6 SEALED WITH: Cement Grout

FROM 0 FT TO 50 FT

FROM FT TO FT

7 DISINFECTED WITH:

8 USE OF WELL:

DOMESTIC	☐	COMMERCIAL	
IRRIGATION	☐	MONITOR	✓
LIVESTOCK/POULTRY	☐	TEST WELL	
OIL/GAS SUPPLY	☐	SEMI-PUBLIC	
PUBLIC SUPPLY	☐	OTHER	

(A/C HEATPUMP TYPE WELLS)

SOURCE	☐	RETURN	
CLOSED LOOP	☐		

9 (For A/C only) Will system also be used for purposes other tha Heating or Air Conditioning?

If yes, name use: yes ☐ nol

10 (For A/C open-loop only) Into what medium is water returne

11 REMARKS

12 SIGNED [signature] DATE 11-12-08

BOART LONGYEAR

WELL/BORING ABANDONMENT FORM

CLIENT: GeoMatrix

LOCATION: Cedar Chemical

JOB NO.: 3436-0112

WELL/BORING NO.: Unknown 10

CHIEF: Courtney

REASON FOR ABANDONMENT: _____

DATE OF ABANDONMENT: 11-5-08

Construction Type: Drilled ✓ Driven ____ Other _____

Formation Type: Unconsolidated ✓ Bedrock ____

Sealing Method: Gravity ____ Pumped ✓ Other _____

Sealing Materials: Bentonite Chips ____ Cement-Bent. ✓ Other ____

SEALING MATERIAL	FROM (FT.)	TO (FT.)	# BAGS OR VOLUME
Cement Bentonite	50	Ø	9 Bags 65 gal

WELL INFORMATION ONLY

Total Well Depth: 50

Screen Removed? yes

Casing Diameter: 2"

Overdrilled? yes

Casing Depth: 50

Casing Pulled? yes

Depth to Water: N/A

Cut Below Surface? N/A

SUPPLIES USED:

HOLEPLUG ____ bags

GROUT ____ gal.

OTHER

STATE OF ARKANSAS
REPORT ON WATER WELL CONSTRUCTION & PUMP INSTALLATION

A

1 Contractor Name & Number: Boart Longyear C# A1532

2 Driller Name & Number: Ricky Davis D# A2769

3 Pump Installer Name & Number: P#

4 Date Well Completed: 11-5-08 New Well ☐ Replace or Work-over ☑

10 LOCATE WITH 'X' IN SECTION BELOW

5 COUNTY	6 FRACTION	7 SECTION	8 TOWNSHIP	9 RANGE
	¼ of ¼ of		2S	4E

LONGITUDE 11 090 ° 39 ' 17 "

LATITUDE 11 34 ° 31 ' 15 "

B 1 DESCRIPTION OF FORMATION: DEPTHS IN FEET

	FROM	TO
Abandon Well		
Overdrill and remove materials. 2"		

ATTACH ADDITIONAL SHEETS IF NECESSARY

2 TOTAL DEPTH OF WELL 49 ft

3 DEPTHS TO WATER PRODUCING FORMATIONS.

4 STATIC WATER LEVEL Ft below land surface

5 YIELD gallons per ☐ min ☐ hr

6 DIAMETER OF BORE HOLE 6 IN

C PUMP REPORT

1 TYPE PUMP: SUBMERSIBLE ☐ TURBINE ☐ JET ☐

2 SETTING DEPTH: FEET

3 BRAND NAME AND SERIAL NUMBERS:

4 RATED CAPACITY gallons per minute

5 TYPE LUBRICATION

6 DROP PIPE OR COLUMN PIPE SIZE

7 WIRE SIZE

8 PRESSURE TANK . . . SIZE, MAKE, MODEL

9 DATE OF INSTALLATION OR REPAIR

10 Is there an abandoned water well on the property?

D 1 LAND OWNER OR OTHER CONTACT PERSON:

NAME Cedar Chemical

STREET ADDRESS 49 Phillips Road

CITY West Helena AR

2 CASING FROM TO W/ "ID

FROM TO W/ "ID

TYPE CASING:

3 SCREEN

TYPE: DIA SLOT/GA

SET FROM FT TO FT

TYPE: DIA SLOT/GA

SET FROM FT TO FT

4 GRAVEL PACK FROM FT TO

5 BACK FILLED WITH:

FROM FT TO FT

6 SEALED WITH: Cement Grout

FROM 0 FT TO 49 FT

FROM FT TO FT

7 DISINFECTED WITH:

8 USE OF WELL:

DOMESTIC	☐	COMMERCIAL	
IRRIGATION	☐	MONITOR	✓
LIVESTOCK/POULTRY	☐	TEST WELL	
OIL/GAS SUPPLY	☐	SEMI-PUBLIC	
PUBLIC SUPPLY	☐	OTHER	

(A/C HEATPUMP TYPE WELLS)

SOURCE	☐	RETURN	
CLOSED LOOP	☐		

9 (For A/C only) Will system also be used for purposes other tha Heating or Air Conditioning?

If yes, name use: yes ☐ no

10 (For A/C open-loop only) Into what medium is water returne

11 REMARKS

12 SIGNED [signature] DATE 11-12-08

BOART LONGYEAR

WELL/BORING ABANDONMENT FORM

CLIENT: Geo Matrix

LOCATION: Cedar Chemical

JOB NO.: 3436-0112

WELL/BORING NO.: UNKNOWN 5

CHIEF: Hawtney

REASON FOR ABANDONMENT: _____

DATE OF ABANDONMENT: 11-5-08

Construction Type: Drilled ✓ Driven ____ Other _____

Formation Type: Unconsolidated ✓ Bedrock ____

Sealing Method: Gravity ____ Pumped ✓ Other _____

Sealing Materials: Bentonite Chips ____ Cement-Bent. ✓ Other ____

SEALING MATERIAL	FROM (FT.)	TO (FT.)	# BAGS OR VOLUME
Cement Betonite	49	Ø	60 gal

WELL INFORMATION ONLY

Total Well Depth: 49

Screen Removed? yes

Casing Diameter: 2"

Overdrilled? yes

Casing Depth: 49

Casing Pulled? yes

Depth to Water: N/A

Cut Below Surface? N/A

SUPPLIES USED:

HOLEPLUG ____ bags

GROUT ____ gal.

OTHER

STATE OF ARKANSAS
REPORT ON WATER WELL CONSTRUCTION & PUMP INSTALLATION

A 1 Contractor Name & Number: Boart Longyear C# A1532

2 Driller Name & Number: Ricky Davis D# A2769

3 Pump Installer Name & Number: P#

4 Date Well Completed: 11-5-08 New Well ☐ Replace or Work-over ☒

10 LOCATE WITH 'X' IN SECTION BELOW

5 COUNTY	6 FRACTION	7 SECTION	8 TOWNSHIP	9 RANGE
	¼ of ¼ of		2S	4E

LONGITUDE 11 090 ° 39 ' 10 "

LATITUDE 11 31 ° 31 ' 18 "

B 1 DESCRIPTION OF FORMATION: DEPTHS IN FEET

	FROM	TO
Abandon Well		
Overdrill and remove Materials. 2"		

ATTACH ADDITIONAL SHEETS IF NECESSARY

2 TOTAL DEPTH OF WELL 131 ft

3 DEPTHS TO WATER PRODUCING FORMATIONS.

4 STATIC WATER LEVEL Ft below land surface

5 YIELD gallons per ☐ min ☐ hr

6 DIAMETER OF BORE HOLE 6 IN

C PUMP REPORT

1 TYPE PUMP: SUBMERSIBLE ☐ TURBINE ☐ JET ☐

2 SETTING DEPTH: FEET

3 BRAND NAME AND SERIAL NUMBERS:

4 RATED CAPACITY gallons per minute

5 TYPE LUBRICATION

6 DROP PIPE OR COLUMN PIPE SIZE

7 WIRE SIZE

8 PRESSURE TANK . . . SIZE, MAKE, MODEL

9 DATE OF INSTALLATION OR REPAIR

10 Is there an abandoned water well on the property?

D 1 LAND OWNER OR OTHER CONTACT PERSON:

NAME Cedar Chemical

STREET ADDRESS 49 Phillips Road

CITY West Helena AR

2 CASING FROM TO W/ "ID

FROM TO W/ "ID

TYPE CASING:

3 SCREEN

TYPE: DIA SLOT/GA

SET FROM FT TO FT

TYPE: DIA SLOT/GA

SET FROM FT TO FT

4 GRAVEL PACK FROM FT TO

5 BACK FILLED WITH:

FROM FT TO FT

6 SEALED WITH: Cement Grout

FROM 0 FT TO 131 FT

FROM FT TO FT

7 DISINFECTED WITH:

8 USE OF WELL:

DOMESTIC	☐	COMMERCIAL	
IRRIGATION	☐	MONITOR	✓
LIVESTOCK/POULTRY	☐	TEST WELL	
OIL/GAS SUPPLY	☐	SEMI-PUBLIC	
PUBLIC SUPPLY	☐	OTHER	

(A/C HEATPUMP TYPE WELLS)

SOURCE	☐	RETURN	
CLOSED LOOP	☐		

9 (For A/C only) Will system also be used for purposes other tha Heating or Air Conditioning?

If yes, name use: yes ☐ nol

10 (For A/C open-loop only) Into what medium is water returne

11 REMARKS

12 SIGNED Ricky Davis DATE 11-12-08

BOART LONGYEAR

WELL/BORING ABANDONMENT FORM

CLIENT: GeoMatrix

LOCATION: Cedar Chemical

JOB NO.: 3436-012

WELL/BORING NO.: UNK-09 (UNKNOWN 4)

CHIEF: Hautley

REASON FOR ABANDONMENT: _____

DATE OF ABANDONMENT: 11-5-08

Construction Type: Drilled ✓ Driven ____ Other _____

Formation Type: Unconsolidated ✓ Bedrock ____

Sealing Method: Gravity ____ Pumped ✓ Other _____

Sealing Materials: Bentonite Chips ____ Cement-Bent. ✓ Other ____

SEALING MATERIAL	FROM (FT.)	TO (FT.)	# BAGS OR VOLUME
Cement Betonite	131	ϕ	20 Bags / 150 gal

WELL INFORMATION ONLY

Total Well Depth: 131

Screen Removed? yes

Casing Diameter: 2"

Overdrilled? yes

Casing Depth: 131

Casing Pulled? yes

Depth to Water: N/A

Cut Below Surface? N/A

SUPPLIES USED:

HOLEPLUG ____ bags

GROUT ____ gal.

OTHER

STATE OF ARKANSAS
REPORT ON WATER WELL CONSTRUCTION & PUMP INSTALLATION

A

1 Contractor Name & Number: Boart Longyear C# A1532

2 Driller Name & Number: Ricky Davis D# A2769

3 Pump Installer Name & Number: P#

4 Date Well Completed: 11-4-08 New Well ☐ Replace or Work-over ☒

10 LOCATE WITH 'X' IN SECTION BELOW

5 COUNTY	6 FRACTION	7 SECTION	8 TOWNSHIP	9 RANGE
	¼ of ¼ of		2S	4E

LONGITUDE 11 090 ° 39 ' 10 "

LATITUDE 11 31 ° 31 ' 18 "

B

1 DESCRIPTION OF FORMATION: DEPTHS IN FEET

	FROM	TO
Abandon Well.		
Overdrill and remove materials. 2"		

ATTACH ADDITIONAL SHEETS IF NECESSARY

2 TOTAL DEPTH OF WELL 16 ft

3 DEPTHS TO WATER PRODUCING FORMATIONS.

4 STATIC WATER LEVEL Ft below land surface

5 YIELD gallons per ☐ min ☐ hr

6 DIAMETER OF BORE HOLE 6 IN

C PUMP REPORT

1 TYPE PUMP: SUBMERSIBLE ☐ TURBINE ☐ JET ☐

2 SETTING DEPTH: FEET

3 BRAND NAME AND SERIAL NUMBERS:

4 RATED CAPACITY gallons per minute

5 TYPE LUBRICATION

6 DROP PIPE OR COLUMN PIPE SIZE

7 WIRE SIZE

8 PRESSURE TANK . . . SIZE, MAKE, MODEL

9 DATE OF INSTALLATION OR REPAIR

10 Is there an abandoned water well on the property?

D

1 LAND OWNER OR OTHER CONTACT PERSON:

NAME Cedar Chemical

STREET ADDRESS 49 Phillips Road

CITY West Helena AR

2 CASING FROM TO W/ "ID

FROM TO W/ "ID

TYPE CASING:

3 SCREEN

TYPE: DIA SLOT/GA

SET FROM FT TO FT

TYPE: DIA SLOT/GA

SET FROM FT TO FT

4 GRAVEL PACK FROM FT TO

5 BACK FILLED WITH:

FROM FT TO FT

6 SEALED WITH: Cement Grout

FROM 0 FT TO 16 FT

FROM FT TO FT

7 DISINFECTED WITH:

8 USE OF WELL:

DOMESTIC	☐	COMMERCIAL	
IRRIGATION	☐	MONITOR	✓
LIVESTOCK/POULTRY	☐	TEST WELL	
OIL/GAS SUPPLY	☐	SEMI-PUBLIC	
PUBLIC SUPPLY	☐	OTHER	

(A/C HEATPUMP TYPE WELLS)

SOURCE	☐	RETURN	
CLOSED LOOP	☐		

9 (For A/C only) Will system also be used for purposes other tha Heating or Air Conditioning?

If yes, name use: yes ☐ no

10 (For A/C open-loop only) Into what medium is water returne

11 REMARKS

12 SIGNED DATE 11-12-08

BOART LONGYEAR

WELL/BORING ABANDONMENT FORM

CLIENT: GeoMatrix

LOCATION: Cedar Chemical

JOB NO.: 3436-0112

WELL/BORING NO.: Unknown 3, (UNK 10)

CHIEF: Hartney

REASON FOR ABANDONMENT: _____

DATE OF ABANDONMENT: 11-4-08

Construction Type: Drilled ✓ Driven ____ Other _____

Formation Type: Unconsolidated ✓ Bedrock ____

Sealing Method: Gravity ____ Pumped ✓ Other _____

Sealing Materials: Bentonite Chips ____ Cement-Bent. ✓ Other ____

SEALING MATERIAL	FROM (FT.)	TO (FT.)	# BAGS OR VOLUME
Cement Bentonite	16	Ø	3 bags 22 gal

WELL INFORMATION ONLY

Total Well Depth: 16

Casing Diameter: 2"

Casing Depth: 16

Depth to Water: N/A

Screen Removed? yes

Overdrilled? yes

Casing Pulled? yes

Cut Below Surface? N/A

SUPPLIES USED:

HOLEPLUG ____ bags

GROUT ____ gal.

OTHER

STATE OF ARKANSAS
REPORT ON WATER WELL CONSTRUCTION & PUMP INSTALLATION

A

1 Contractor Name & Number: Boart Longyear C# A1532

2 Driller Name & Number: Ricky Davis D# A2769

3 Pump Installer Name & Number: P#

4 Date Well Completed: 11-4-08 New Well ☐ Replace or Work-over ☒

10 LOCATE WITH 'X' IN SECTION BELOW

5 COUNTY	6 FRACTION	7 SECTION	8 TOWNSHIP	9 RANGE
	¼ of ¼ of		2S	4E

LONGITUDE 11 090 ° 39 ' 09 "

LATITUDE 11 39 ° 31 ' 14 "

B

1 DESCRIPTION OF FORMATION: DEPTHS IN FEET

FROM	TO
Abandon well.	
Over drill and remove materials. 2"	

ATTACH ADDITIONAL SHEETS IF NECESSARY

2 TOTAL DEPTH OF WELL 415 ft

3 DEPTHS TO WATER PRODUCING FORMATIONS.

4 STATIC WATER LEVEL Ft below land surface

5 YIELD gallons per ☐ min ☐ hr

6 DIAMETER OF BORE HOLE 6 IN

C PUMP REPORT

1 TYPE PUMP: SUBMERSIBLE ☐ TURBINE ☐ JET ☐

2 SETTING DEPTH: FEET

3 BRAND NAME AND SERIAL NUMBERS:

4 RATED CAPACITY gallons per minute

5 TYPE LUBRICATION

6 DROP PIPE OR COLUMN PIPE SIZE

7 WIRE SIZE

8 PRESSURE TANK . . . SIZE, MAKE, MODEL

9 DATE OF INSTALLATION OR REPAIR

10 Is there an abandoned water well on the property?

D

1 LAND OWNER OR OTHER CONTACT PERSON:

NAME Cedar Chemical

STREET ADDRESS 49 Phillips Road

CITY West Helena AR

2 CASING FROM TO W/ "ID

FROM TO W/ "ID

TYPE CASING:

3 SCREEN

TYPE: DIA SLOT/GA

SET FROM FT TO FT

TYPE: DIA SLOT/GA

SET FROM FT TO FT

4 GRAVEL PACK FROM FT TO

5 BACK FILLED WITH:

FROM FT TO FT

6 SEALED WITH: Cement Grout

FROM 0 FT TO 41.5 FT

FROM FT TO FT

7 DISINFECTED WITH:

8 USE OF WELL:

DOMESTIC	☐	COMMERCIAL	
IRRIGATION	☐	MONITOR	✓
LIVESTOCK/POULTRY	☐	TEST WELL	
OIL/GAS SUPPLY	☐	SEMI-PUBLIC	
PUBLIC SUPPLY	☐	OTHER	

(A/C HEATPUMP TYPE WELLS)

SOURCE	☐	RETURN	
CLOSED LOOP	☐		

9 (For A/C only) Will system also be used for purposes other tha Heating or Air Conditioning?

If yes, name use: yes ☐ no

10 (For A/C open-loop only) Into what medium is water returne

11 REMARKS

12 SIGNED [signature] DATE 11-12-08

BOART LONGYEAR

WELL/BORING ABANDONMENT FORM

CLIENT: GeoMatrix

LOCATION: Cedar Chemical

JOB NO.: 3436-0112

WELL/BORING NO.: Unknown 1

CHIEF: Hawthney

REASON FOR ABANDONMENT: _____

DATE OF ABANDONMENT: 11-4-08

Construction Type: Drilled ✓ Driven ____ Other _____

Formation Type: Unconsolidated ✓ Bedrock ____

Sealing Method: Gravity ____ Pumped ✓ Other _____

Sealing Materials: Bentonite Chips ____ Cement-Bent. ✓ Other ____

SEALING MATERIAL	FROM (FT.)	TO (FT.)	# BAGS OR VOLUME
Cement Bentonite	41.5	ϕ	5 Bags 60 gal

WELL INFORMATION ONLY

Total Well Depth: 41.5 Screen Removed? yes

Casing Diameter: 2" Overdrilled? yes

Casing Depth: 41.5 Casing Pulled? yes

Depth to Water: N/A Cut Below Surface? N/A

SUPPLIES USED:

HOLEPLUG ____ bags GROUT ____ gal. OTHER

STATE OF ARKANSAS
REPORT ON WATER WELL CONSTRUCTION & PUMP INSTALLATION

A

1 Contractor Name & Number: Boart Longyear C# A1532

2 Driller Name & Number: Ricky Davis D# A2769

3 Pump Installer Name & Number: P#

4 Date Well Completed: 11-4-08 New Well ☐ Replace or Work-over ☒

10 LOCATE WITH 'X' IN SECTION BELOW

5 COUNTY	6 FRACTION	7 SECTION	8 TOWNSHIP	9 RANGE
	¼ of	¼ of	2S	4E

LONGITUDE 11 090 ° 39 ' 09 "

LATITUDE 11 39 ° 31 ' 44 "

B

1 DESCRIPTION OF FORMATION: DEPTHS IN FEET

	FROM	TO
Abandon Well		
Overdrill and remove materials. 2"		

ATTACH ADDITIONAL SHEETS IF NECESSARY

2 TOTAL DEPTH OF WELL 19 ft

3 DEPTHS TO WATER PRODUCING FORMATIONS.

4 STATIC WATER LEVEL Ft below land surface

5 YIELD gallons per ☐ min ☐ hr

6 DIAMETER OF BORE HOLE 6 IN

C PUMP REPORT

1 TYPE PUMP: SUBMERSIBLE ☐ TURBINE ☐ JET ☐

2 SETTING DEPTH: FEET

3 BRAND NAME AND SERIAL NUMBERS:

4 RATED CAPACITY gallons per minute

5 TYPE LUBRICATION

6 DROP PIPE OR COLUMN PIPE SIZE

7 WIRE SIZE

8 PRESSURE TANK . . . SIZE, MAKE, MODEL

9 DATE OF INSTALLATION OR REPAIR

10 Is there an abandoned water well on the property?

D

1 LAND OWNER OR OTHER CONTACT PERSON:

NAME Cedar Chemical

STREET ADDRESS 49 Phillips Road

CITY West Helena AR

2 CASING FROM TO W/ "ID

FROM TO W/ "ID

TYPE CASING:

3 SCREEN

TYPE: DIA SLOT/GA

SET FROM FT TO FT

TYPE: DIA SLOT/GA

SET FROM FT TO FT

4 GRAVEL PACK FROM FT TO

5 BACK FILLED WITH:

FROM FT TO FT

6 SEALED WITH: Cement Grout

FROM 0 FT TO 19 FT

FROM FT TO FT

7 DISINFECTED WITH:

8 USE OF WELL:

DOMESTIC	☐	COMMERCIAL	
IRRIGATION	☐	MONITOR	✓
LIVESTOCK/POULTRY	☐	TEST WELL	
OIL/GAS SUPPLY	☐	SEMI-PUBLIC	
PUBLIC SUPPLY	☐	OTHER	

(A/C HEATPUMP TYPE WELLS)

SOURCE	☐	RETURN	
CLOSED LOOP	☐		

9 (For A/C only) Will system also be used for purposes other tha Heating or Air Conditioning?

If yes, name use: yes ☐ no

10 (For A/C open-loop only) Into what medium is water returne

11 REMARKS

12 SIGNED [signature] DATE 11-12-08

BOART LONGYEAR

WELL/BORING ABANDONMENT FORM

CLIENT: Geo Matrix

LOCATION: Cedar Chemical

JOB NO.: 3430-0112

WELL/BORING NO.: Unknown 2

CHIEF: Hartney

REASON FOR ABANDONMENT: _____

DATE OF ABANDONMENT: 11-4-08

Construction Type: Drilled ✓ Driven ____ Other _____

Formation Type: Unconsolidated ✓ Bedrock ____

Sealing Method: Gravity ____ Pumped ✓ Other _____

Sealing Materials: Bentonite Chips ____ Cement-Bent. ✓ Other ____

SEALING MATERIAL	FROM (FT.)	TO (FT.)	# BAGS OR VOLUME
Cement Betonite	19	ϕ	4 Bags 30gal

WELL INFORMATION ONLY

Total Well Depth: 19

Screen Removed? yes

Casing Diameter: 2"

Overdrilled? yes

Casing Depth: 19

Casing Pulled? yes

Depth to Water: N/A

Cut Below Surface? N/A

SUPPLIES USED:

HOLEPLUG ____ bags

GROUT ____ gal.

OTHER

STATE OF ARKANSAS
REPORT ON WATER WELL CONSTRUCTION & PUMP INSTALLATION

A

1 Contractor Name & Number: Boart Longyear C# A1532

2 Driller Name & Number: Ricky Davis D# A2769

3 Pump Installer Name & Number: P#

4 Date Well Completed: 11-4-08 New Well ☐ Replace or Work-over ☒

10 LOCATE WITH 'X' IN SECTION BELOW

5 COUNTY	6 FRACTION	7 SECTION	8 TOWNSHIP	9 RANGE
	¼ of ¼ of		2S	4E

LONGITUDE 11 90 ° 39 ' 09 "

LATITUDE 11 34 ° 31 ' 13 "

B

1 DESCRIPTION OF FORMATION: DEPTHS IN FEET

	FROM	TO
Abandon Well		
Overdrill and remove materials. 2"		

ATTACH ADDITIONAL SHEETS IF NECESSARY

2 TOTAL DEPTH OF WELL 36 ft

3 DEPTHS TO WATER PRODUCING FORMATIONS.

4 STATIC WATER LEVEL Ft below land surface

5 YIELD gallons per ☐ min ☐ hr

6 DIAMETER OF BORE HOLE 6 IN

C PUMP REPORT

1 TYPE PUMP: SUBMERSIBLE ☐ TURBINE ☐ JET ☐

2 SETTING DEPTH: FEET

3 BRAND NAME AND SERIAL NUMBERS:

4 RATED CAPACITY gallons per minute

5 TYPE LUBRICATION

6 DROP PIPE OR COLUMN PIPE SIZE

7 WIRE SIZE

8 PRESSURE TANK . . . SIZE, MAKE, MODEL

9 DATE OF INSTALLATION OR REPAIR

10 Is there an abandoned water well on the property?

D

1 LAND OWNER OR OTHER CONTACT PERSON:

NAME Cedar Chemical

STREET ADDRESS 49 Phillips Road

CITY West Helena AR

2 CASING FROM TO W/ "ID

FROM TO W/ "ID

TYPE CASING:

3 SCREEN

TYPE: DIA SLOT/GA

SET FROM FT TO FT

TYPE: DIA SLOT/GA

SET FROM FT TO FT

4 GRAVEL PACK FROM FT TO

5 BACK FILLED WITH: ~~Cement Grout~~

FROM ~~0~~ FT TO ~~36~~ FT

6 SEALED WITH: Cement Grout

FROM 0 FT TO 36 FT

FROM FT TO FT

7 DISINFECTED WITH:

8 USE OF WELL:

DOMESTIC	☐	COMMERCIAL	
IRRIGATION	☐	MONITOR	✓
LIVESTOCK/POULTRY	☐	TEST WELL	
OIL/GAS SUPPLY	☐	SEMI-PUBLIC	
PUBLIC SUPPLY	☐	OTHER	

(A/C HEATPUMP TYPE WELLS)

SOURCE	☐	RETURN	
CLOSED LOOP	☐		

9 (For A/C only) Will system also be used for purposes other tha Heating or Air Conditioning?

If yes, name use: yes ☐ no

10 (For A/C open-loop only) Into what medium is water returne

11 REMARKS

12 SIGNED [signature] DATE 11-12-08

BOART LONGYEAR

WELL/BORING ABANDONMENT FORM

CLIENT: Geo Matrix

LOCATION: Cedar Chemical

JOB NO.: 3436 0112

WELL/BORING NO.: E-3

CHIEF: Southwey

REASON FOR ABANDONMENT: _____

DATE OF ABANDONMENT: 11-4-08

Construction Type: Drilled ✓ Driven ____ Other _____

Formation Type: Unconsolidated ✓ Bedrock ____

Sealing Method: Gravity ____ Pumped ✓ Other _____

Sealing Materials: Bentonite Chips ____ Cement-Bent. ✓ Other ____

SEALING MATERIAL	FROM (FT.)	TO (FT.)	# BAGS OR VOLUME
Cement Betonite	36	∅	8 bags / 100gal

WELL INFORMATION ONLY

Total Well Depth: 36

Screen Removed? yes

Casing Diameter: 2"

Overdrilled? yes

Casing Depth: 36

Casing Pulled? yes

Depth to Water: N/A

Cut Below Surface? N/A

SUPPLIES USED:

HOLEPLUG ____ bags

GROUT ____ gal.

OTHER

APPENDIX H

IDW Documentation

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST

Please print or type. *(Form designed for use on elite (12-pitch) typewriter.)*

Box # RR 20061 CWM

NON-HAZARDOUS MANIFEST

1. Generator's US EPA ID No.: ARD990660649 — Manifest Document No.:

2. Page 1 of 1

3. Generator's Name and Mailing Address:
AMEC GEOMATRIX (C/O THE CEDAR CHEMICAL SITE GROUP)
49 PHILIPS RD 311
WEST HELENA AR 72342

4. Generator's Phone: 512 494-0333

A. Manifest Number: WMNA 1 320306

B. State Generator's ID:

5. Transporter 1 Company Name: Gator Environmental Rental

6. US EPA ID Number: LAR000059915

C. State Transporter's ID:

D. Transporter's Phone:

7. Transporter 2 Company Name:

8. US EPA ID Number:

E. State Transporter's ID:

F. Transporter's Phone:

9. Designated Facility Name and Site Address:
THE TUNICA LANDFILL
6035 BOWDRE ROAD
ROBINSONVILLE MS 38664

10. US EPA ID Number:

G. State Facility's ID:

H. Facility's Phone: 662 363-2282

11. Description of Waste Materials	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a. NON-HAZARDOUS IDW SOIL BORINGS, NON-DOT REGULATED — WM Profile # 101003MS					
b. WM Profile #					
c. WM Profile #					
d. WM Profile #					

J. Additional Descriptions for Materials Listed Above

Landfill _____ Solidification _____

Bio Remediation _____

K. Disposal Location

Cell Level

Grid

15. Special Handling Instructions and Additional Information

TR #0717 Ticket # 339722 Ton. 3.67

Purchase Order # EMERGENCY CONTACT:

16. GENERATOR'S CERTIFICATION:

I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.

Printed/Typed Name	Signature "On behalf of"	Month Day Year
KELLY BECK Amec Geomatrix	Kelly Beck The Cedar Chem Site Group	09 23 08

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year
HARVEY McGhee III	Harvey McGhee III	9 23 08

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year

19. Certificate of Final Treatment/Disposal

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facitilty Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.

Printed/Typed Name	Signature	Month Day Year
Tommy Reed	Tommy Reed	9 23 08

GENERATOR / TRANSPORTER / FACILITY

CWM - NHM - 1 - 5/97

Gator Environmental & Rentals

CUSTOMER SERVICE IS OUR PRIORITY

GATOR TRIP # 61860

Customer:	**Salesman:**	**LADEQ T033-12472**
Start Date:	**Job Location:**	**U.S. DOT# 1274737**
P.O. #:	**Terminal Address:** 4968 Robique Rd.	**EPA ID - LAR000059915**
Manifest/BL #:	Baton Rouge, LA 70811	**State Transport: ID - LPSC-7144**
Contact		**Phone:** (255) 357-2800 **Fax:** (225) 357-2003

Equipment	Unit Number	Date Yard	Leave Gator Yard	Arrive at Customer	Leave Customer	Arrive Gator Yard	Total
Chemical Transport							
130 BBL Vacuum Truck							
70 BBL Vacuum Truck							
Roll-off Truck							
Winch Truck							
Van Trailer							
20, 25, 30 Yard Box							
Vacuum Box							
Dewatering Box							
Hoses 2", 3", 4"							
Frac Tank							
Crew Truck							
Load Time	Start		Stop		Demurrage		
Unload Time	Start		Stop		Demurrage		

Personnel	Employee Name	Date	Leave Gator Yard	Arrive at Plant/Cust.	Leave Plant/Cust.	Arrive Yard	Total Hours
Supervisor							
Equipment Operator							
Technician							
Technician							

Consumables	Qty.	Amount	Job Description
Slicker Suites			
Tyvek Suites			
Chemical Gloves			
Box Washout			
Dewatering Cloth			
Liner			
Fittings			
Other			

Gator Name/Print: _____ **Customer Name/Print:** _____

Gator Signature: _____ **Customer Signature:** _____

White - Original **Pink - Payroll** **Yellow - Transporter** **Gold - Customer**

Land Disposal Restriction Notification Form

Printed Date :Sep 16, 2008

MANIFEST INFORMATION

Generator : **Helena Chemical**

Address: **Highway 242**

Helena,AR 72342

EPA ID #: **A R C E S Q G 9 9 9 9 9 9 9**

Manifest Tracking Info.

Sales Order No: **7T2061204**

LINE ITEM INFORMATION

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category
1.	**1**	**CH329712**	**NON-WASTEWATER**	**2 (This is subject to LDR.)**

EPA Waste Code	EPA Waste SubCategory
D028	NONE

LDR Chemical Data

Chemical	Underlying Hazardous Constituents	Constituents of Concern	Contaminants Subject to Treatment

Certification	**Applies to Manifest Line Items**
Pursuant to 40 CFR 268.7(a), I hereby notify that this shipment contains waste restricted under 40 CFR Part 268.	**1.**

Waste analysis data, where available, is attached.

Signature : _____ Print Name _____

Title : _____ Date : _____

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST

CWM

Please print or type. *(Form designed for use on elite (12-pitch) typewriter.)*

NON-HAZARDOUS MANIFEST

1. Generator's US EPA ID No. A R D 9 9 0 6 0 0 6 4 9 — Manifest Document No.

2. Page 1 of 1

3. Generator's Name and Mailing Address
AMEC GEOMA TRX (C/O THE CEDAR CHEMICAL SITE GROUP)
40 PHILIPS RD 311
WEST HELENA AR 72342

4. Generator's Phone 512 404-0333

A. Manifest Number **WMNA** 10820304

B. State Generator's ID

5. Transporter 1 Company Name — 6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name — 8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address — 10. US EPA ID Number
THE TUNICA LANDFILL
6035 BOWORE ROAD
ROBINSONVILLE MS 38664

G. State Facility's ID

H. Facility's Phone 662 363-2282

GENERATOR

11. Description of Waste Materials	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a. NON-HAZARDOUS RCRA EMPTY CONTAINERS, NON-DOT REGULATED — WM Profile # 101004MS	014	DM			
b. — WM Profile #					
c. — WM Profile #					
d. — WM Profile #					

J. Additional Descriptions for Materials Listed Above

Landfill _____ Solidification _____

Bio Remediation _____

K. Disposal Location

Cell Level

Grid

15. Special Handling Instructions and Additional Information

TR #1 Ticket # 339743 Tons 0.93

Purchase Order # EMERGENCY CONTACT:

16. GENERATOR'S CERTIFICATION:

I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.

Printed/Typed Name	Signature "On behalf of"	Month	Day	Year
KELLY BECK AMEC Geomatrix	Kelly Beck Cedar Chemical Site Group	09	03	08

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
R. Gordon	[illegible]	09	03	08

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Certificate of Final Treatment/Disposal

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facitilty Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.

Printed/Typed Name	Signature	Month	Day	Year
Tommy Rod	Tommy Rod	09	03	08

CWM - NHM - 1 - 5/97

#3 - TRANSPORTER #1 COPY

GATOR Environmental

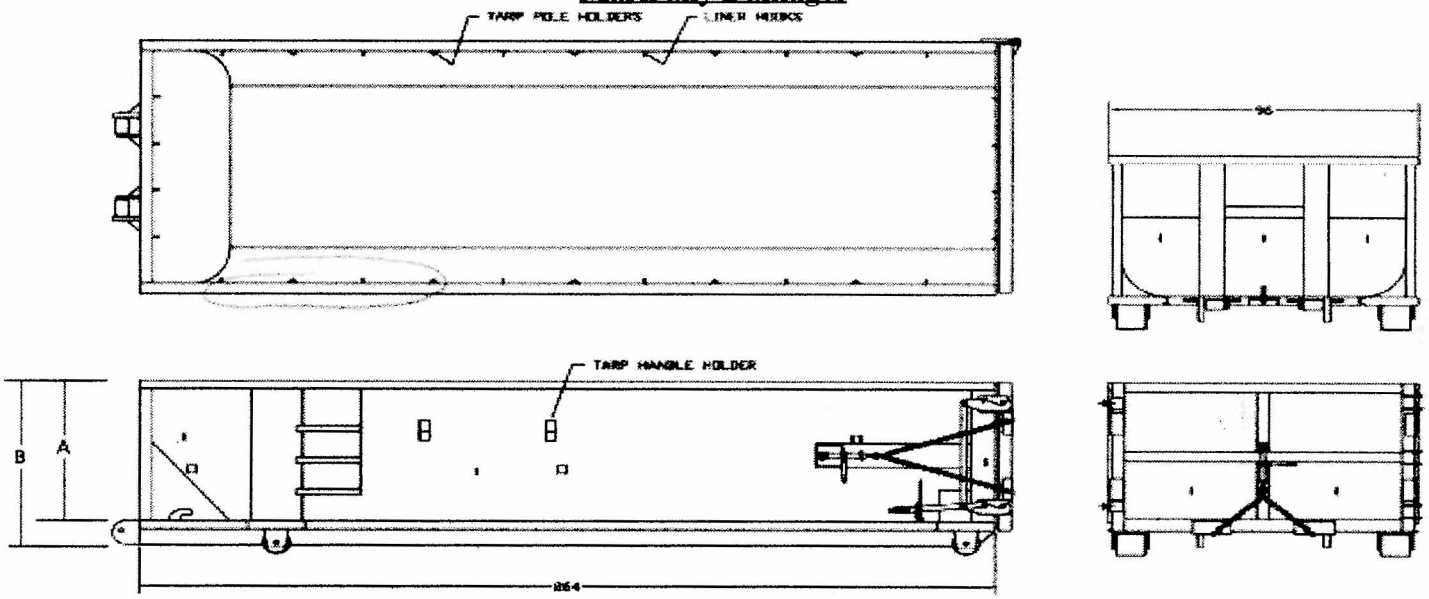
GATOR ENVIRONMENTAL & RENTALS, INC.

CREATIVE WASTE MANAGEMENT SOLUTIONS

Equipment #

Customer: USES	Contact:	25 yd RT	RB 20088
Start Date: 9-23-08 End Date: 9-23-08		25 yd OT	
P.O. #:	Job Site/Location: Helena AKK	30 yd OT	
Gator Trip: 61860		Vaccum Box	
	Cedar CHEMical	Frac Tank	

Mark any Damages



Box Condition Notes (Chains, Binders, Tarp, Seals, etc.)	Comments
Tarp and Shoe is ok	
LEFT POLE BENT INNARD	

Consumables	Quantity
Washout	
Liner	
Other	

Gator Name Print: HARVEY McGHEE III Customer Name Print: KELLY BECK AMER Generator

Gator Signature: [signature] Customer Signature: [signature]

White - Original Yellow - Transporter Pink - Customer

GATOR Environmental

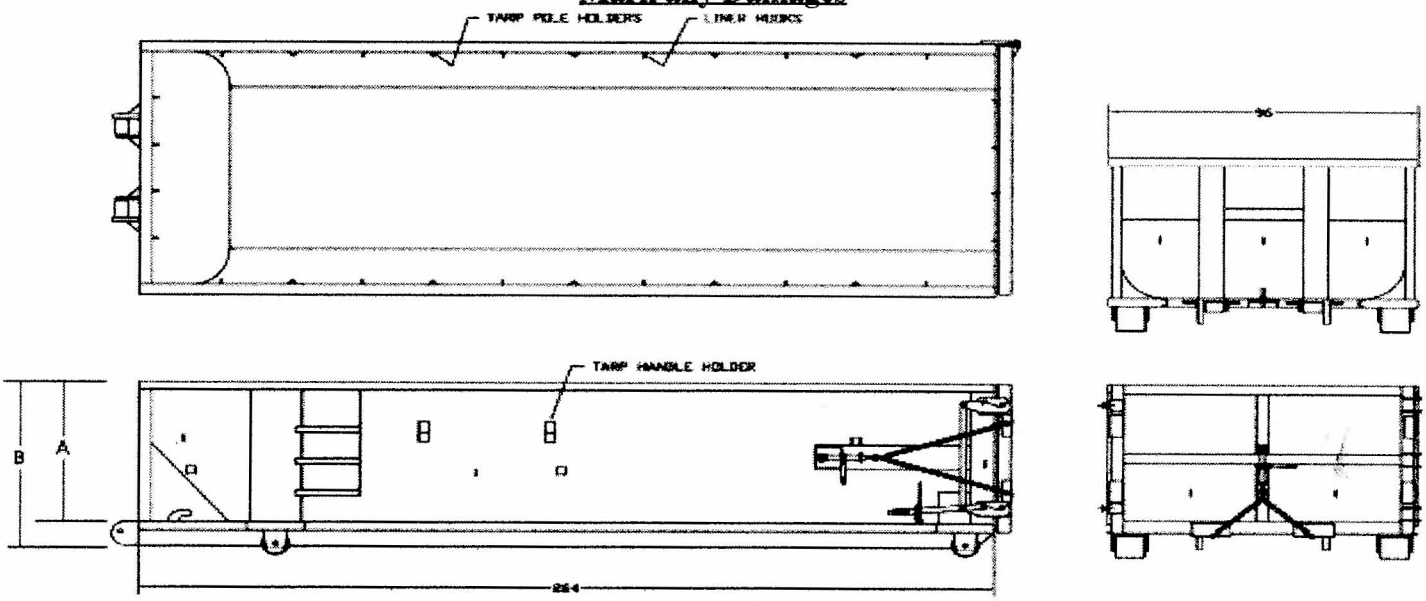
GATOR ENVIRONMENTAL & RENTALS, INC.

CREATIVE WASTE MANAGEMENT SOLUTIONS

Equipment #

Customer: USES		Contact:	25 yd RT	RB 20061
Start Date: 9-23-08	End Date: 9-23-08		25 yd OT	
P.O. #:		Job Site/Location: Helena AR	30 yd OT	
Gator Trip: 61860			Vaccum Box	
		Cedar CHEMical	Frac Tank	

Mark any Damages



Box Condition Notes (Chains, Binders, Tarp, Seals, etc.)	Comments
Tarp and Strap is ok	
~~Left Pore Bank Standard~~	

Consumables	Quantity
Washout	
Liner	
Other	

Gator Name Print: HARVEY McGhee III Customer Name Print: KELLY BECK Amer Geometry

Gator Signature: [signature] Customer Signature: [signature]

White - Original Yellow - Transporter Pink - Customer

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) TT2061204 SC PPW 8/29/2006 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: ARCL 80G9999999
2. Page 1 of 1
3. Emergency Response Phone: (800) 483-3718
4. Manifest Tracking Number: 001013005 FLE

GENERATOR

5. Generator's Name and Mailing Address: Helena Chemical, Hillsdale 242, Helena, AR 72347
Generator's Phone: (901) 537-8600
Generator's Site Address (if different than mailing address): SAME

6. Transporter 1 Company Name: Clean Harbors Environmental Services Inc
U.S. EPA ID Number: MA0039322250

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Clean Harbors El Dorado LLC, 309 American Circle, El Dorado, AR 71730
Facility's Phone: (870) 863-7173
U.S. EPA ID Number: ARD069748192

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
x	1. NA3082, HAZARDOUS WASTE, [illegible] 2-DICHLOROETHANE, 9 PG III, 2-DICHLOROETHANE	001	DM	00000	P	D028
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information: [illegible]

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: [illegible] Signature: [illegible] Month: [illegible] Day: [illegible] Year: [illegible]

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: [illegible] Signature: [illegible] Month: 01 Day: 24 Year: 08
Transporter 2 Printed/Typed Name: Signature: Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name Signature Month Day Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. GENERATOR'S INITIAL COPY
Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST

Box # RB 20088

CWM

Please print or type. *(Form designed for use on elite (12-pitch) typewriter.)*

NON-HAZARDOUS MANIFEST

1. Generator's US EPA ID No. ARD990660649 — Manifest Document No.

2. Page 1 of 1

3. Generator's Name and Mailing Address
AMEC GEOMATRIX (C/O THE CEDAR CHEMICAL SITE GROUP)
49 PHILIPS RD 311
WEST HELENA AR 72342

4. Generator's Phone 512 494-0333

A. Manifest Number **WMNA** 10820309

B. State Generator's ID

5. Transporter 1 Company Name: Gator Environmental Rental

6. US EPA ID Number: LAIR000058115

C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
THE TUNICA LANDFILL
6035 BOWDRE ROAD
ROBINSONVILLE MS 38664

10. US EPA ID Number

G. State Facility's ID

H. Facility's Phone 662 363-2282

GENERATOR

11. Description of Waste Materials	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a. NON-HAZARDOUS IDW SOIL BORINGS, NON-DOT REGULATED WM Profile # 101003MS					
b. WM Profile #					
c. WM Profile #					
d. WM Profile #					

J. Additional Descriptions for Materials Listed Above

Landfill _____ Solidification _____

Bio Remediation _____

K. Disposal Location

Cell Level

Grid

15. Special Handling Instructions and Additional Information

TR # 0717 Ticket # 339784 Tons - 12.11

Purchase Order # EMERGENCY CONTACT:

16. GENERATOR'S CERTIFICATION:

I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.

Printed/Typed Name	Signature "On behalf of"	Month Day Year
KELLY BECK Amec Geomatrix	Kelly Beck Cedar Chemical Site Group	09 23 08

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year
HARVEY McGhee III	Harvey McGhee III	9 10 23 08

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year

FACILITY

19. Certificate of Final Treatment/Disposal

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.

Printed/Typed Name	Signature	Month Day Year
Tammy Red	Tammy Red	9 23 08

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#2 - GENERATOR #1 COPY