1817874 - R8 SDMS

2016 ANNUAL GROUNDWATER MONITORING REPORT FOR THE UPPER AND LOWER AQUIFER

LIBBY GROUNDWATER SITE
LIBBY, MONTANA

Submitted to:

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Submittal Date:

March 28, 2017

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Enclosed Disk contains an electronic version of the entire report in .PDF format

1.0 INTRODUCTION

1.1 Purpose

The 2016 groundwater monitoring results for both the Upper and Lower Aquifers are presented and evaluated in this report for the Libby Groundwater Site (Site) in Libby, MT. Submittal of this report fulfills the Environmental Protection Agency's (EPA) annual reporting requirement for the Upper and Lower aquifers at the Site. By letters dated December 7, 2004 and January 30, 2005, EPA approved the Site's Draft Groundwater Monitoring Plan (AEI, September, 2004) and a subsequent modification to that plan, leading to the submittal of the Final Groundwater Monitoring Plan – Libby Groundwater Site (AEI, August 2005). By letter dated March 23, 2005, EPA approved the submittal schedule for the Site's annual reports.

The purpose of this report is to 1.) document the monitoring activities performed during the reporting period, 2.) summarize the monitoring data generated during the reporting period, and 3.) evaluate the progress toward remedial goals, as specified in the Site's consent decree (U.S. District Court, Montana 1989). The ongoing remedial activities at the Site for impacted groundwater involve source area extraction, physical and biological treatment, and monitoring of the contaminant plumes in both the Upper and Lower aquifers.

Section 1.0 provides a brief summary of relevant background information on the Site, such as site history and background hydrogeology. Following this background summary, the remaining sections present the monitoring results for the groundwater. The Lower Aquifer monitoring activities are discussed in Section 2.0. The Upper Aquifer monitoring activities are discussed in Section 3.0. The groundwater flow direction and gradient monitoring are discussed in Section 4.0. The non-aqueous phase liquid (NAPL) monitoring is discussed in Section 5.0. Section 6.0 contains the summary and conclusions for the groundwater monitoring. Section 7.0 contains the planned groundwater monitoring activities for the upcoming year. Discussions in each of the aforementioned sections (Sections 2.0, 3.0, 4.0 and 5.0) generally include; 1.) program objectives and background, 2.) summary of monitoring activities for 2016, 3.) results of the monitoring activities in 2016, and 4.) analysis of the monitoring results in select wells.

1.2 Site and Project History

Groundwater at the Site was contaminated by waste disposal practices and spills involving wood treating fluids between the years of 1946 and 1969. The wood treating fluids consisted primarily of creosote, containing polynuclear aromatic hydrocarbon (PAH) compounds, and pentachlorophenol (PCP). A Remedial Investigation (RI) to characterize the nature and extent of contamination was initiated by St. Regis Paper Company in the early 1980s shortly after the site-related contaminants were found in the groundwater. The primary sources of treating fluids (free product) and dissolved phase groundwater contamination identified during this RI were the waste pit area, the former butt dip area, and the former tank farm area (see Figure 1-1). A secondary source of the dissolved PAHs and PCP is the non-aqueous phase liquid (NAPL) or free product that migrated from these source areas. The RI was completed in 1988 (WCC 1988a) by Champion International, successor by 1985 merger to St. Regis Paper Company.

A Feasibility Study (FS), performed to evaluate alternatives for remediation of the Site, indicated that in situ bioremediation of dissolved PCP and PAH compounds in the Upper Aquifer could be a viable remedial technology (WCC 1988b).

For the Upper Aquifer, in situ bioremediation and extraction of contaminated groundwater and oil in the source area were selected as the preferred remedial alternatives. Extraction of contaminated groundwater and oil was followed by oil/water separation of the contaminated water and subsequent treatment of the water in a bioreactor (Record of Decision [ROD] EPA 1988).

For the Lower Aquifer, several studies and investigations were undertaken to evaluate the potential for active remediation. A bench-scale study was conducted in July 1990 which culminated in a report entitled "Lower Aquifer Bench Test – Interim Report – Groundwater Site, Libby, Montana, October, 1990 (WCC 1990). A technology evaluation (WCC 1993b) was completed in 1993 to further evaluate potential remedial options for the Lower Aquifer. During the same period a focused risk assessment was completed for the Lower Aquifer (WCC 1993c). Based on these studies and reports, it was determined that active remediation of the Lower Aquifer is not feasible at this time. As a result, EPA prepared an Explanation of Significant Differences (ESD) (EPA 1993) which, in part, specified continuation of the long-term monitoring of the Lower Aquifer. An evaluation of the findings from these investigations and assessments, as well as the ESD, resulted in the development of the Lower Aquifer Monitoring Program for the Libby Site (WCC 1994).

Recent Property Ownership Summary

Effective November 1, 1993, Champion International Corporation's mill properties in Montana were sold to Stimson Lumber Company. Champion retained ownership of properties at the Site that were deemed necessary to continue remedial actions. Additional information on the sale is provided in Section 2.0 of the 1993 Annual Upper Aquifer Report (WCC 1994).

Effective June 20, 2000, Champion International Corporation became a wholly owned subsidiary of International Paper Company. Then on December 31, 2000, Champion was merged into International Paper. International Paper is continuing the operation of the Site in much the same manner as Champion did previously. A notification letter detailing the change in ownership and Site management was sent to EPA and Montana DEQ on August 24, 2000.

Site Hydrogeology

This section provides a general description of the Site hydrogeology. The hydrogeology of the Site was characterized in detail in earlier investigations (WCC 1986, 1988a) and is summarized in the 1995 Annual Upper Aquifer Report (WCC 1996). The Final Groundwater Monitoring Plan – Libby Groundwater Site (AEI, August 2005) prepared and submitted to the EPA and Montana DEQ also contains a detailed description of the hydrogeology. In addition, a report entitled "Groundwater and NAPL Characterization Summary Report, Libby Groundwater Site, Libby, Montana" (URS and AEI 2009a) was prepared and submitted to EPA in 2009. The objective of this report was to provide relevant background information about the Site to support future evaluations of 1.) the effectiveness of the current remedy in protection human health and the environment, and 2.) other potential remedial technologies that could be used more effectively in Site remediation. The Characterization Summary report contains detailed descriptions of the Site's hydrogeology and the occurrence of free product.

In general, the Site overlies approximately 150 feet of unconsolidated interbedded gravel, sand, silt, and clay of glacial and glaciofluvial origin. The upper saturated aquifer extends from the water table at approximately 10 to 20 feet below ground surface (bgs) to approximately 70 feet bgs.

The upper saturated aquifer unit is referred to as the Upper Aquifer. The elevation of the base of the Upper Aquifer is variable, but in general it is at approximately 2,030 feet mean sea level (MSL). The hydraulic conductivity of the Upper Aquifer ranges from approximately 100 feet/day near well 3007 to 1,000 feet/day near well 3042 (Figure 1-1). In the upper 50 feet of the saturated zone, or approximately

60 to 70 feet bgs, the deposits are predominantly clean to silty gravel and sand with occasional interbedded layers approximately 2 to 10 feet thick containing more clay and silt.

At a depth of approximately 70 feet bgs, the predominance of sand and gravel in the Upper Aquifer transitions into a unit with an increased content of clay and silt, and a lower hydraulic conductivity. This unit has been designated as the Intermediate Zone, and in earlier reports has also been referred to as the Middle Leaky Aquitard. The transition from the Upper Aquifer to the Intermediate Zone can be very subtle. Both units consist of interbedded water bearing and non-water bearing strata; however, the Upper Aquifer contains more water bearing strata while the Intermediate Zone contains fewer water bearing strata.

The Intermediate Zone extends from approximately 60 or 70 feet bgs to 100 or 110 feet bgs where the Lower Aquifer is encountered. The combined thickness of the sand and gravel units within the Intermediate Zone ranges from 0 to 21 feet, with an average combined thickness of 8 feet. The combined thickness of the silt and clay units within the Intermediate Zone ranges from 7 to 63 feet, with an average thickness of 34 feet

The transition from the Intermediate Zone to the Lower Aquifer is even more subtle than the transition between the Upper Aquifer and the Intermediate Zone. The Lower Aquifer consists of clean to silty gravel and sand interbedded with sandy, gravelly silt and clay layers, similar to the Upper Aquifer. However, the Lower Aquifer appears to have both higher silt and clay content and more silt and clay interbeds than the Upper Aquifer. These observations were made based on the Electromagnetic Induction (EM) logs for wells 3044, 6502, and 6503, and drilling logs for most of the wells that penetrate to the Lower Aquifer.

The combined thickness of sand and gravel zones in the Lower Aquifer ranges from 18 to 53 feet, with an average combined thickness of 40 feet. The combined thickness of the silt and clay zones range from 0 to greater than 48 feet, with an average thickness of 15 feet. The silt and clay zones comprise approximately 29 percent of the Lower Aquifer, whereas 18 percent of the Upper Aquifer is comprised of silt and clay zones, and 81 percent of the Intermediate Zone is comprised of silt and clay zones.

1.3 Groundwater Monitoring History

Groundwater has been monitored at the Site since 1979. Initial monitoring was in support of the remedial investigation to identify the nature (Contaminants of Concern (COCs)) and extent (aerial and vertical) of contamination in the groundwater. Groundwater data has also been collected from the Upper and Lower Aquifers to support the feasibility study, risk assessments and design and operation of remedial actions at the Site. Most recently groundwater data has been collected to assist in the focused feasibility study (FFS) for the Upper Aquifer.

Since about 1994, groundwater monitoring has been conducted to track potential movement of the contaminant plume and to evaluate the performance of the remedial actions that had been implemented at the Site. Groundwater remedial systems included the Intermediate Injection System that operated from July 1987 to April 1999; the Boundary Injection System (BIS) that operated from late 1992 to March 2003; and, the Source Area Extraction and Treatment System (bioreactor and free product recovery), that has been operating since February 1991.

Groundwater monitoring at the Site in 2016 was conducted according to the Final Groundwater Monitoring Plan (AEI, August 9, 2005). In addition to the groundwater monitoring specified in the groundwater monitoring plan (AEI, August 9, 2005), AECOM requested nearly all of the upper aquifer wells be sampled for PCP and PAHs. All of the wells sampled in 2016 were also sampled for total As. The field sheets from the sampling events for 2016 are provided in Appendix A. In addition, an electronic .pdf copy of the report is provided on an enclosed CD with this report.

Groundwater samples are collected in accordance with the Standard Operating Procedures (SOPs) contained in Quality Assurance Project Plan (URS, 2010). Monitoring well purging and sampling is conducted following low-flow procedures. Generally, the wells are purged at between 250 and 500 milliliters-per-minute (mls/min) and samples are collected at similarly low flow rates. During purging, water quality parameters including temperature, pH, specific conductivity, oxidation-reduction potential (ORP), dissolved oxygen, and turbidity are monitored until the parameters stabilize within the required limits in the SOP. Most of the wells have dedicated tubing for use with a peristaltic pump. The water level is too deep (approx. >25 feet not effective for peristaltic pump) in a

few wells, so an air-operated bladder pump is used for these wells. As with any equipment that comes in contact with the water inside the monitoring wells, the bladder pump is decontaminated in accordance with the SOP and a new, disposable bladder is installed in the pump for each well.

2.0 LOWER AQUIFER MONITORING PLAN

2.1 LAP Objectives and Background

The Lower Aquifer Plan (LAP) was developed to fulfill the EPA's requirement to perform long-term water quality monitoring of the Lower Aquifer at the Site. Long-term groundwater monitoring and restrictions on private water supply wells in the City of Libby were previously selected as the remedy for the Lower Aquifer (USEPA 1993). These remedies were selected based on the conclusion that cost-effective remediation of dense non-aqueous phase liquids (DNAPL) and associated dissolved contaminants (i.e. pentachlorophenol (PCP) and polycyclic aromatic hydrocarbons (PAHs)) in the Lower Aquifer is technically infeasible using currently available technologies (See Section 1.2 above). Also, it was concluded that the risk to human health and the environment from potential plume migration is not significant and the use of the recovery techniques to enhance oil mobility and remediation may potentially result in a greater risk to human health and the environment (See WCC 1993c, Section 3.3.1).

The LAP is designed to collect groundwater data at appropriate locations and frequencies to accomplish two monitoring objectives relative to groundwater quality in the Lower Aquifer: 1.) monitor the location of the contaminant plume; and, 2.) monitor any changes in contaminant concentrations resulting from remedial actions in the Upper Aquifer. To accomplish these objectives, the LAP is divided into two monitoring well networks: 1.) Group 1L – Perimeter Monitoring Well Network and 2.) Group 2L – Interior Monitoring Well Network.

A significant change in groundwater data is considered to be anything that may influence future remedial actions at the Site, such as an increasing or decreasing extent of contamination in the Lower Aquifer, an increasing or decreasing level of contamination within the Lower Aquifer plume, or a change in the principal direction of groundwater flow.

Group 1L – Perimeter Monitoring Well Network- Lower Aquifer:

The primary objective for the Perimeter Monitoring Well Network (PMWN-LA) for the Lower Aquifer is to collect data from wells located outside the expected area of site-related contamination (principally PCP) and evaluate possible changes in the distribution of PCP from year to year.

To accomplish the primary objective of the PMWN-LA, a group of perimeter wells (Group 1L) has been selected for routine monitoring. Group 1L consists of wells (some from both the 3000 and 6000 series) located near, but outside, the historical limits of the zone of groundwater contamination. The PCP results for the Group 1L wells are shown on Figure 2-1 and listed in Table 2-1, which also includes information about well screen intervals and sample frequency and analyses.

All Group 1L wells are sampled for PCP at least biennially (every two years) during the third quarter of the year. These wells were sampled in 2016 for PCP, PAHs and total As. Because these samples are used to establish plume boundaries and therefore considered to be compliance samples, all Group 1L samples are submitted to ALS Laboratory (ALS) for analysis of PCP by Method 8151M and PAHs by Method 8270-SIM.

Group 2L – Interior Monitoring Well Network- Lower Aquifer:

The primary objective of the Interior Monitoring Well Network (IMWN-LA) for the Lower Aquifer is to monitor for any changes in contaminant concentrations resulting from remedial actions in the Upper Aquifer or other changes within the Lower Aquifer. To accomplish this objective, a group of interior wells have been selected for routine monitoring. Group 2L consists of wells (some from both the 3000 and 6000 series) located within the historically contaminated plume of groundwater. The PCP results for the Group 2L wells are shown on Figure 2-1 and listed in Table 2-2, which also includes information about well screen intervals and sample frequency and analyses.

Included in Group 2L are six (6) existing wells, all located downgradient from current or past remedial activities conducted in the Upper Aquifer. These remedial activities include the following: the Intermediate Injection System, operated from 1987 to 1999; the Boundary Injection System, operated

from 1992 to 2003; and the current bioreactor and free product recovery systems, operational since 1991.

All Group 2L wells are sampled for PCP annually during the third quarter of the year. These wells were sampled in 2016 for PCP, PAHs and total As. Because these samples will be collected from wells within the contaminated zone and used only to track concentration trends, they will be considered operational samples, and all Group 2L samples may be submitted to the Libby On-Site Laboratory (LOSL) for analysis of PCP by Method 8040 FID or 8040 ECD. In 2016, groundwater samples from these wells were also submitted to ALS for analysis of PCP 8151, PAH 8270 SIM and total As 6010.

2.2 Summary of LA Monitoring during 2016

The sampling in 2016 for the Lower Aquifer was conducted in accordance with the revised monitoring plan presented in the Final Groundwater Monitoring Plan (AEI, August 2005) with the addition of samples collected for PAHs and total As from all of the wells in the monitoring plan. Lower Aquifer groundwater samples were collected from the Group 1L (Perimeter Monitoring Well Network – Table 2-1) and Group 2L (Interior Monitoring Well Network – Table 2-2) wells in 2016. The groundwater samples for Group 1L were sent to ALS for analysis of for PCP, PAHs, and total As. The groundwater samples for Group 2L wells were analyzed by the Libby On-Site Laboratory (LOSL) for PCP and PAHs using the flame ionization detector (FID) or the electron capture detector (ECD) for low-level PCP analysis with the split samples also submitted to ALS for analysis of PCP, PAHs and total As. The tables in the groundwater monitoring plan include the wells sampled, the chemical/physical analysis and the monitoring frequency.

2.3 Evaluation of LA Results for 2016

Results and Discussion of Dissolved PCP Monitoring in Lower Aquifer

Group 1L – Perimeter Monitoring Well Network:

The PCP concentrations for the Group 1L wells sampled in 2016 wells are presented in Table 2-3 along with the historical results for PCP for each of these wells. The primary objective of the Group 1L wells is to evaluate potential plume movement in the Upper Aquifer.

The PCP sample results for all of the Lower Aquifer wells sampled during 2016 are shown on Figure 2-1. None of the results from the Group 1L wells were significantly different when compared to the 2016 PCP results and/or historical results for each well with the exception of well 6500.2. Well 6500.2 had a PCP detection of 11 ppb in 2016. This is higher than the previous high detection for this well in 2015 of 2.2 ppb.

Group 2L – Interior Monitoring Well Network:

The PCP concentrations for the Group 2L wells sampled in 2016 are presented in Table 2-4 along with the historical results for PCP for each of these wells. The primary objective of the Group 2L wells is to evaluate potential trends in concentrations in wells historically contaminated which may provide an early indication of plume movement or effects from activities in the Upper Aquifer. However, variability in data collected from groundwater monitoring makes trend analysis difficult.

The PCP sample results for all of the Lower Aquifer wells sampled during 2016 are shown on Figure 2-1. In 2016, none of the results from the Group 2L wells were significantly different when compared to the historical results for each well.

3.0 UPPER AQUIFER MONITORING PLAN

3.1 UAP Objectives and Background

The Upper Aquifer Plan (UAP) was designed to collect groundwater data at appropriate locations and frequencies to accomplish two objectives relative to the Upper Aquifer: 1.) monitor the location of the contaminant plume; and, 2.) monitor any changes in contaminant concentrations resulting from remedial actions. These objectives are contained in the Final Groundwater Monitoring Plan (AEI, August 9, 2005) approved by EPA in 2005.

A significant change is considered to be anything that may influence future remedial actions at the Site, such as an increasing or decreasing extent of contamination in the Upper Aquifer, an increasing or decreasing level of contamination within the Upper Aquifer plume, or a change in the principal direction of groundwater flow.

Group 1U – Perimeter Monitoring Well Network- Upper Aquifer:

The primary objective for the Perimeter Monitoring Well Network (PMWN-UA) for the Upper Aquifer is to gather information from wells located outside the expected area of Site-related contamination and evaluate possible changes in plume dynamics from year to year.

To accomplish the primary objective of the PMWN-UA, a group of perimeter wells has been selected for routine monitoring. Group 1U consists of wells (some from both the 3000 and 6000 series) located near, but outside, the historical limits of the zone of groundwater contamination. PCP results for the Group 1U wells are shown on Figure 3-1A and 3-1B and are listed in Table 3-1.

All Group 1U wells are scheduled to be sampled for PCP biennially (every two years) during the third quarter of the year. These wells were sampled in 2016 for PCP, PAHs, and total As. Because these samples are used to establish plume boundaries and therefore considered to be compliance samples, all Group 1U samples are submitted to ALS for analysis of PCP by Method 8151M and PAHs by Method 8270SIM. ALS also analyzed the samples for total As.

Group 2U – Interior Monitoring Well Network- Upper Aquifer:

The primary objective of the Interior Monitoring Well Network (IMWN-UA) for the Upper Aquifer is to monitor for any changes in contaminant concentrations resulting from remedial actions in the Upper Aquifer. To accomplish this objective, a group of interior wells have been selected for routine monitoring. Group 2U consists of wells (some from both the 3000 and 6000 series) located within the historically contaminated plume of groundwater. PCP results for the Group 2U wells are shown on Figure 3-1A and 3-1B and are listed in Table 3-2.

Included in Group 2U are ten (10) existing wells, all located downgradient from current or past remedial activities conducted in the Upper Aquifer. These remedial activities include the following:

the Intermediate Injection System, operated from 1987 to 1999; the Boundary Injection System, operated from 1992 to 2003; and the current bioreactor and free product recovery systems, operational since 1991.

All Group 2U wells are sampled for PCP annually during the third quarter of the year. In 2016, these wells were also sampled for PAHs and total As. Because these samples are collected from wells within the contaminated zone and used only to track concentration trends, they are considered operational samples, and all Group 2U samples for PCP may be submitted to the Libby On-Site Laboratory (LOSL) for analysis by Method 8040 FID (PAHs and/or PCP) or 8040 ECD for PCP. In 2016, the groundwater samples from these wells were split with ALS-Kelso.

3.2 Summary of UA Monitoring during 2016

The sampling in 2016 for the Upper Aquifer was conducted in accordance with the revised monitoring plan for the Upper Aquifer presented in the Final Groundwater Monitoring Plan (AEI, August 2005) with the additional analysis of the Group 2U wells for PAHs and total As for all of the wells. Upper Aquifer groundwater samples were collected from the Group 1U (Perimeter Monitoring Well Network – Table 3-1) and Group 2U (Interior Monitoring Well Network – Table 3-2) wells.

The groundwater samples from Group 2U wells were analyzed by the Libby On-Site Laboratory (LOSL) for PCP and PAHs using the flame ionization detector (FID) or the electron capture detector (ECD) for low-level PCP analysis. Samples were also sent to ALS in Kelso, WA for analysis of PCP by EPA Method 8151, PAHs by EPA Method 8270SIM and total As by EPA Method 6010.

In addition, AECOM requested that nearly all of the Upper Aquifer wells be sampled for PCP and PAHs during the annual groundwater sampling event for 2016. The results for all of the wells and analyses are provided in Table 3-5 and are shown on the figures for the UA.

3.3 Evaluation of UA Results for 2016

Results and Discussion of PCP Monitoring in Upper Aquifer

Group 1U – Perimeter Monitoring Well Network:

The PCP concentrations for the Group 1U wells in 2016 are presented in Table 3-3 along with the historical results for PCP for each of these wells. The objective of the Group 1U wells is to evaluate potential plume movement in the Upper Aquifer. The PCP sample results for all of the Upper Aquifer wells sampled during 2016 are shown on Figure 3-1A for the Upper Aquifer Shallow Subunit and Figure 3-1B for the Upper Aquifer Middle/Deep Subunit.

None of the results from the Group 1U wells was significantly different when compared to the historical results for each well.

Group 2U – Interior Monitoring Well Network:

The PCP concentrations for the Group 2U wells in 2016 are presented in Table 3-4 along with the historical results for PCP for each of these wells. The data from 2016 from the Group 2U wells is also provided in Table 3-5. The objective of the Group 2U wells is to evaluate potential trends in concentrations in historically contaminated wells which may provide an early indication of plume movement. However, variability in data collected from groundwater monitoring makes trend analysis difficult.

The PCP sample results for all of the Upper Aquifer wells sampled during 2016 are shown on Figure 3-1A for the Upper Aquifer Shallow Subunit and Figure 3-1B for the Upper Aquifer Middle/Deep Subunit. None of the PCP results from the Group 2U wells in 2016 were significantly different when compared to the historical results for each well.

Results and Discussion of Arsenic Monitoring in Upper Aquifer

For 2016, a total of thirty-five (35) wells had total As results above the level of 10 ppb ranging from 10.3 ppb (Well 8001.1) and 44.8 ppb (Well 3062.1). The total As results are provided in Table 3-5. To gain a better understanding of the As concentrations and distribution, appropriate groundwater wells in the updated groundwater monitoring plan will be analyzed for total As. The objectives of the As sampling will be provided in the updated groundwater monitoring plan which is currently being prepared for the Site.

Results of PAH Monitoring in Upper Aquifer

PAH results are shown in Table 3-5 for all of the wells sampled in 2016 (Upper and Lower Aquifer). In 2016, a number of monitoring wells located within and near the source areas were sampled for PAHs. The 2016 naphthalene results for wells screened in the Upper Aquifer are shown on Figure 3-2A for the Upper Aquifer Shallow Subunit and Figure 3-2B for the Upper Aquifer Middle/Deep Subunit.

PAHs, benzene and ethylbenzene analysis will be considered and possibly added to the overall groundwater monitoring plan for wells at strategic locations and frequencies. The sampling plan will be developed to address the objectives which will be defined in the updated groundwater monitoring plan.

4.0 FLOW DIRECTION AND GRADIENT PLAN

4.1 DGP Objectives

The Flow Direction and Gradient Plan (DGP) describes the water level monitoring necessary to track potential changes in groundwater flow direction and gradient over time at the Site. Water levels are also measured in nested wells to monitor vertical gradients between the Upper and Lower Aquifers. The DGP is presented in the Final Groundwater Monitoring Plan for the Site (AEI, August 2005).

4.2 Summary of DGP Monitoring during 2016

Water levels were measured for the wells in the Upper and Lower Aquifer in accordance with the procedures presented in the groundwater monitoring plan for the Site (AEI, August 2005). Water levels were measured on one occasion in 2016 (July/August). The water levels used to prepare the water level contour maps (Upper Aquifer Figure 4-1A – Shallow Subunit, Figure 4-1B – Middle/Deep Subunit and Lower Aquifer Figure 4-2) were obtained from the July/August 2016 gauging event and are shown on Table 4-1.

4.3 Results of DGP Monitoring during 2016

Upper Aquifer:

The contour maps for the groundwater gradient and direction in the Upper Aquifer are shown on Figure 4-1A for the Shallow Subunit and on Figure 4-1B for the Middle/Deep Subunit. The average horizontal hydraulic gradient in the Upper Aquifer, from approximately the former waste pit to the Kootenai River, is approximately 0.006 feet/feet in the Shallow Subunit based on groundwater level elevations data measured in wells that are less than 45 feet below ground surface. The contour maps shows the mounding of shallow groundwater in the area of the Fire Pond, former Waste Pit and the channel from the Libby Creek Inlet to the Fire Pond. This is likely the result of infiltration of the surface water into the shallow groundwater. Groundwater elevations measured during 2016 in the Upper Aquifer wells are provided in Table 4-1. In addition, Table 4-1 designates specifically which wells were used for contouring of Figures 4-1A and 4-1B.

Lower Aquifer:

The contour map for the groundwater gradient and direction in the Lower Aquifer is shown on Figure 4-2. The average horizontal hydraulic gradient in the Lower Aquifer, from approximately the former waste pit to the Kootenai River, is approximately 0.004 feet/feet based on groundwater level elevations data measured in the deepest Lower Aquifer wells within a well nest. The water levels measured in the Lower Aquifer are provided in Table 4-1.

5.0 NAPL MONITORING DURING 2016

5.1 Summary of NAPL Monitoring during 2016

NAPL monitoring in 2016 was completed in accordance with the NAPL Monitoring and Recovery Plan (NMRP) presented in the Final Groundwater Monitoring Plan for the Site (AEI, August 2005). The presence or absence of NAPL was determined for each well as the water level was measured. If NAPL was evident on the water level probe in the Upper Aquifer, an electronic oil/water level probe

was used to measure the thickness of NAPL in the well to determine if sufficient quantities existed for recovery.

Dense Non-Aqueous Phase Liquid (DNAPL) was checked by pumping a small amount of water from the very bottom of the monitoring well with a peristaltic pump and visually assessing the water quality (DNAPL presence/absence). Due to interference issues with the interface probe from the presence of sediment in the bottom of wells, DNAPL thickness in the bottom of a well cannot be accurately measured with the interface probe. During 2016, the NAPL monitoring and recovery was completed in February and June in accordance with the NMRP. For the remainder of 2016, AECOM had requested that routine NAPL recovery be discontinued in advance of the upcoming NAPL transmissivity work. The results of the NAPL transmissivity field work will be presented in a separate report.

5.2 Results of NAPL Monitoring during 2016

The results of NAPL monitoring for the Upper and Lower Aquifer are provided in Table 5-1 for the wells in the 2005 groundwater monitoring plan. These results are similar to the NAPL monitoring conducted in previous years. Table 5-1 also includes the results of NAPL recovery from the Upper Aquifer. Approximately 2.17 liters of NAPL were recovered from two Upper Aquifer Wells (Well 3031.1 – 0.81 liters, Well 3039.1 – 1.36 liters). The recovered product from these two wells was placed in a satellite drum collecting recovered NAPL prior to disposal. The 55-gallon drum is currently stored in the Source Area Extraction and Treatment building and will be disposed of as hazardous waste once the drum is filled.

6.0 SUMMARY AND CONCLUSION

Upper Aquifer:

The aerial size of the PCP plume (Figures 3-1A and 3-1B) cannot be directly compared to early plume maps (pre-2010) due to the bolstering of the monitoring well network undertaken in 2010 and additional

wells installed in subsequent years. The aerial size of the PCP plume in 2016 is similar to the plume boundaries identified in 2015.

The water level contour maps (Figures 4-1A and 4-1B) show that the groundwater direction and gradient in the Upper Aquifer is similar to previous years.

The Arsenic (As) results in the Upper Aquifer are difficult to evaluate in terms of a source and then subsequent plume development due to groundwater movement. The spatial heterogeneity makes this type of an assessment difficult. Additional As data will be collected in 2017 to assist in this evaluation. One objective of the As monitoring will be to determine the source of the contaminant and to better understand it's distribution in the aquifer.

Naphthalene was the primary PAH detected during the 2016 monitoring event. In all cases where naphthalene was detected above the current cleanup level of 1,460 ppb; PCP was also detected above it's cleanup level of 1.0 ppb. Naphthalene was plotted on Figure 3-2A (Shallow Subunit) and Figure 3-2B (Middle/Deep Subunit) compared to a contour line of 100 µg/L (ppb). PAHs will be included in the updated groundwater monitoring plan which is currently being updated for the site. The objectives for PAH monitoring will be included in the updated plan.

Lower Aquifer:

An evaluation of contaminant concentrations from the wells monitored during 2016 as compared to the earlier data show that the aerial size of the PCP plume has not changed significantly since 2005. The results are similar to historical data with the exception of well 6002.3. Similar to years 2004 through 2015, NAPL was encountered in well 6002.3 during purging of the well in 2016. A groundwater sample was collected from well 6002.3 in 2016 even though NAPL was observed in the purge water.

The water level contour map (Figure 4-2) shows that the groundwater direction and gradient in the Lower Aquifer is similar to previous years.

7.0 PLANNED MONITORING ACTIVITIES FOR 2017

Until the updated groundwater monitoring plan is completed and approved by the agencies, groundwater monitoring at the Site will be conducted in accordance with the Final Groundwater Monitoring Plan (AEI, August 9, 2005). In accordance with the monitoring plan, samples will be collected from the annual sampling groups in 2017 (Group 2U and Group 2L) and the biennial

sampling groups (Group 1U and Group 1L). Additional groundwater monitoring may be requested by AECOM to support the ongoing FFS. NAPL monitoring will also be conducted quarterly during 2016 unless suspended due to activities related to the NAPL transmissivity assessment and natural source zone depletion assessment. Well sampled in 2017 as part of the annual groundwater sampling event will be analyzed for PCP, PAHs and total As.

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TABLES

TABLE 2-1

GROUP 1L
PERIMETER MONITORING WELL NETWORK

Well No.	Depth of Screen or Open Interval (feet bgs)	Biennially Sampling PCP (8151M)[1] Field Parameters[2]	Purge Water Containment (Y/N)	Annual Water Levels[3]
3044.2	89 - 99	X	N	X
3044.3	144 - 154	X	N	X
3047.2	95-105	X	N	X
3047.3	168-178	X	N	X
6001.2	109 - 112	X	N	X
6500.2	91 - 101	X	N	X
6500.3	150 - 155	X	N	X
6502.2	93 - 103	X	N	X
6502.3	143 - 153	X	N	X
6503.2	133 - 137	X	N	X
6503.3	149 - 159	X	N	X

1 – Analysis of PCP by Method 8151M will be performed by Columbia Analytical Services.
2 – Field Parameters consist of dissolved oxygen, temperature, pH, specific conductance and oxidation/reduction potential.
3 - Groundwater level measurements will be annually during the sampling event.

TABLE 2-2

GROUP 2L
INTERIOR MONITORING WELL NETWORK

Well No.	Depth of Screen or Open Interval (feet bgs)	Annual Sampling PCP (8040M)[1] Field Parameters[2]	Purge Water Containment (Y/N)	Annual Water Levels[3]
3018.2	151 - 154	X	Y	X
6002.2	128 -131	X	Y	X
6002.3	159 - 162	X	Y	X
6003.2	137 - 140	X	Y	X
6003.3	161 - 164	X	Y	X
6007.1	138-148	X	Y	X

1 – Analysis of PCP (8040M) will be performed by Libby On-Site Laboratory.
2 – Field Parameters consist of dissolved oxygen, temperature, pH, specific conductance and oxidation/reduction potential.
3 - Groundwater level measurements will be collected annually during the sampling event.

Table 2-3
Group 1L-PMWN-LA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
3044.2	4/11/1994	OSL	SA	< 3.4
3044.2	3/8/1995	OSL	SA	< 3.4
3044.2	4/17/1997	OSL	SA	< 3.5
3044.2	7/26/1999	QES	SA	**0.63**
3044.2	7/15/2000	STL	SA	< 0.5
3044.2	6/19/2002	CAS K	SA	< 0.5
3044.2	6/18/2003	CAS K	SA	< 0.5
3044.2	6/30/2004	CAS K	SA	< 0.5
3044.2	7/21/2005	CAS K	SA	**0.72**
3044.2	10/24/2006	CAS K	SA	< 0.5
3044.2	9/14/2007	CAS K	SA	< 0.5
3044.2	9/15/2008	CAS K	SA	< 0.5
3044.2	9/21/2009	CAS	SA	< 0.5
3044.2	9/6/2010	CAS	SA	< 0.5
3044.2	9/15/2012	CAS	SA	< 0.5
3044.2	9/16/2013	ALS	SA	< 0.5
3044.2	9/22/2014	ALS	SA	< 0.5
3044.2	7/25/2015	ALS	SA	< 0.5
3044.2	8/26/2016	ALS	SA	**0.09**
3044.3	4/11/1994	OSL	SA	< 3.4
3044.3	4/11/1994	OSL	UNK	< 3.4
3044.3	3/8/1995	OSL	SA	< 3.4
3044.3	3/8/1995	OSL	UNK	< 3.4
3044.3	4/16/1997	OSL	SA	< 3.5
3044.3	7/26/1999	QES	SA	**0.21**
3044.3	7/26/1999	QES	SA	**--**
3044.3	7/15/2000	STL	SA	< 0.5

SA = Sample, FD = Field Duplicate, SS - Split Sample
UNK - Unknown, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes

Table 2-3
Group 1L-PMWN-LA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
3044.3	6/19/2002	CAS K	SA	< 0.5
3044.3	6/18/2003	CAS K	SA	< 0.5
3044.3	6/30/2004	CAS K	SA	< 0.5
3044.3	7/21/2005	CAS K	SA	< 0.5
3044.3	10/24/2006	CAS K	SA	< 0.5
3044.3	9/14/2007	CAS K	SA	< 0.5
3044.3	9/15/2008	CAS K	FD	< 0.5
3044.3	9/15/2008	CAS K	SA	< 0.5
3044.3	9/18/2008	LOSL	SS	< 0.5
3044.3	9/21/2009	CAS	FD	< 0.5
3044.3	9/21/2009	CAS	SA	< 0.5
3044.3	9/21/2009	LOSL	SS	< 3.5
3044.3	9/6/2010	CAS	SA	< 0.5
3044.3	9/15/2012	CAS	SA	< 0.5
3044.3	9/16/2013	ALS	SA	< 0.5
3044.3	9/22/2014	ALS	SA	**0.97**
3044.3	7/25/2015	ALS	SA	<0.5
3044.3	8/26/2016	ALS	SA	**0.12**
3047.2	12/30/2005	CAS K	SA	< 0.5
3047.2	10/24/2006	CAS K	SA	< 0.5
3047.2	9/15/2007	CAS K	SA	< 0.5
3047.2	9/15/2008	CAS K	SA	< 0.5
3047.2	9/22/2009	CAS	SA	< 0.5
3047.2	9/6/2010	CAS	SA	< 0.5
3047.2	9/14/2012	CAS	SA	< 0.5
3047.2	9/18/2013	ALS	SA	< 0.5
3047.2	9/22/2014	ALS	SA	< 0.5

SA = Sample, FD = Field Duplicate, SS - Split Sample
UNK - Unknown, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes

Table 2-3
Group 1L-PMWN-LA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
3047.2	7/24/2015	ALS	SA	< 0.5
3047.2	8/26/2016	ALS	SA	< 0.5
3047.3	12/30/2005	CAS K	FD	< 0.5
3047.3	12/30/2005	CAS K	SA	< 0.5
3047.3	10/24/2006	CAS K	FD	< 0.5
3047.3	10/24/2006	CAS K	SA	< 0.5
3047.3	10/24/2006	OSL	SS	< 0.5
3047.3	9/15/2007	CAS K	SA	< 0.5
3047.3	9/15/2008	CAS K	SA	< 0.5
3047.3	9/22/2009	CAS	SA	< 0.5
3047.3	9/6/2010	CAS	SA	< 0.5
3047.3	9/6/2010	CAS	FD	< 0.5
3047.3	9/6/2010	OSL	SS	< 0.5
3047.3	9/14/2012	CAS	SA	< 0.5
3047.3	9/18/2013	ALS	SA	< 0.5
3047.3	9/22/2014	ALS	SA	< 0.5
3047.3	7/24/2015	ALS	SA	< 0.5
3047.3	8/26/2016	ALS	SA	< 0.5
6001.2	6/28/1987	CAL	SA	< 0.5
6001.2	6/28/1987	CHA	SA	< 0.2
6001.2	6/28/1987	CHA	SS	--
6001.2	6/28/1987	CHA	SS	< 0.2
6001.2	12/6/1987	CAL	SA	**1.9**
6001.2	12/3/1991	CAL	SA	< 0.5
6001.2	12/3/1991	CAL	SS	--
6001.2	12/3/1991	OSL	SA	< 3
6001.2	12/3/1991	OSL	SS	< 3

SA = Sample, FD = Field Duplicate, SS - Split Sample
UNK - Unknown, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes

Table 2-3
Group 1L-PMWN-LA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
6001.2	1/29/1992	CAL	SA	< 0.5
6001.2	5/18/1992	OSL	SA	< 3
6001.2	8/25/1992	OSL	SA	< 3
6001.2	10/22/1992	CAL	SA	< 0.5
6001.2	10/22/1992	OSL	SA	< 3
6001.2	10/22/1992	OSL	SS	--
6001.2	10/22/1992	OSL	SS	< 3
6001.2	10/22/1992	OSL	SSFD	--
6001.2	10/22/1992	OSL	UNK	< 4
6001.2	3/16/1994	OSL	SA	**4.3**
6001.2	3/3/1995	OSL	SA	< 3.4
6001.2	3/15/1996	OSL	SA	< 3.4
6001.2	4/16/1997	OSL	SA	< 3.5
6001.2	7/30/1998	OSL	SA	< 3
6001.2	4/28/1999	OSL	SA	< 3.4
6001.2	7/27/1999	OSL	SA	< 3.4
6001.2	7/21/2000	STL	SA	< 0.5
6001.2	8/27/2001	STL	SA	**0.65**
6001.2	6/24/2002	CAS K	SA	< 0.5
6001.2	6/24/2002	CAS K	SA	< 0.49
6001.2	6/18/2003	CAS K	SA	**0.98**
6001.2	7/5/2004	CAS K	SA	< 0.5
6001.2	7/27/2005	CAS K	SA	< 0.5
6001.2	10/24/2006	CAS K	SA	< 0.5
6001.2	9/19/2007	CAS K	SA	< 0.5
6001.2	9/24/2008	CAS K	FD	< 0.5
6001.2	9/24/2008	CAS K	SA	< 0.5

SA = Sample, FD = Field Duplicate, SS - Split Sample
UNK - Unknown, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes

Table 2-3
Group 1L-PMWN-LA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
6001.2	9/24/2008	LOSL	SS	< 0.5
6001.2	9/28/2009	CAS	SA	< 0.5
6001.2	9/7/2010	CAS	SA	< 0.5
6001.2	9/22/2012	CAS	SA	< 0.5
6001.2	9/20/2013	ALS	SA	< 0.5
6001.2	9/23/2014	ALS	SA	< 0.5
6001.2	8/2/2015	ALS	SA	< 0.5
6001.2	9/23/2016	ALS	SA	**0.099**
6500.2	12/2/1991	OSL	SA	< 3
6500.2	1/28/1992	CAL	SA	< 0.5
6500.2	5/7/1992	OSL	SA	< 3
6500.2	8/12/1992	OSL	SA	< 3
6500.2	10/21/1992	CAL	SA	< 0.5
6500.2	10/21/1992	CAL	UNK	< 0.5
6500.2	3/16/1994	OSL	SA	< 3.7
6500.2	3/8/1995	OSL	SA	< 3.4
6500.2	3/11/1996	OSL	SA	< 3.5
6500.2	4/11/1997	OSL	SA	< 3.5
6500.2	3/30/1998	OSL	SA	< 3.4
6500.2	8/3/1998	OSL	SA	< 3
6500.2	7/29/1999	QES	SA	**0.28**
6500.2	7/15/2000	STL	SA	< 0.5
6500.2	8/27/2001	OSL	SS	< 0.5
6500.2	8/27/2001	STL	SA	< 0.5
6500.2	6/19/2002	CAS K	SA	< 0.5
6500.2	6/19/2002	OSL	SS	< 0.5
6500.2	6/30/2003	CAS K	SA	< 0.5

SA = Sample, FD = Field Duplicate, SS - Split Sample
UNK - Unknown, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes

Table 2-3
Group 1L-PMWN-LA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
6500.2	7/3/2004	CAS K	SA	**0.55**
6500.2	7/25/2005	CAS K	SA	< 0.5
6500.2	10/24/2006	CAS K	FD	< 0.5
6500.2	10/24/2006	OSL	SS	< 0.5
6500.2	10/25/2006	CAS K	SA	< 0.5
6500.2	9/17/2007	CAS K	SA	< 0.5
6500.2	9/22/2008	CAS K	SA	< 0.5
6500.2	9/22/2009	CAS	SA	< 0.5
6500.2	9/6/2010	CAS	SA	< 0.5
6500.2	9/8/2012	CAS	SA	< 0.5
6500.2	9/16/2013	ALS	SA	< 0.5
6500.2	9/22/2014	ALS	SA	**0.34**
6500.2	7/25/2015	ALS	SA	**2.2**
6500.2	9/3/2016	ALS	SA	**11**
6500.3	12/2/1991	OSL	SA	< 3
6500.3	1/28/1992	CAL	SA	< 0.5
6500.3	5/7/1992	CAL	SA	--
6500.3	5/7/1992	OSL	SA	< 3
6500.3	8/12/1992	OSL	SA	< 3
6500.3	10/21/1992	CAL	SA	< 0.5
6500.3	3/16/1994	OSL	SA	< 3.4
6500.3	3/8/1995	OSL	SA	< 3.4
6500.3	3/11/1996	OSL	SA	< 3.5
6500.3	4/11/1997	OSL	SA	< 3.5
6500.3	3/30/1998	OSL	SA	**9**
6500.3	6/3/1998	QES	FD	< 0.5
6500.3	6/3/1998	QES	SA	< 0.5

SA = Sample, FD = Field Duplicate, SS - Split Sample
UNK - Unknown, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes

Table 2-3
Group 1L-PMWN-LA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
6500.3	8/3/1998	OSL	SA	< 3
6500.3	7/29/1999	QES	SA	< 0.5
6500.3	7/15/2000	STL	SA	< 0.5
6500.3	8/27/2001	OSL	SS	< 0.5
6500.3	8/27/2001	STL	SA	**0.54**
6500.3	6/24/2002	CAS K	SA	< 0.5
6500.3	6/24/2002	CAS K	SA	< 0.5
6500.3	6/30/2003	CAS K	SA	< 0.5
6500.3	6/30/2003	OSL	SS	**10.18**
6500.3	12/8/2003	CAS K	FD	< 0.5
6500.3	12/8/2003	CAS K	SA	< 0.5
6500.3	7/3/2004	CAS K	FD	< 0.5
6500.3	7/3/2004	CAS K	SA	< 0.5
6500.3	7/5/2004	LOSL	SS	**1.36**
6500.3	7/5/2004	LOSL	SS	< 3.5
6500.3	11/29/2004	CAS K	FD	< 0.5
6500.3	11/29/2004	CAS K	SA	< 0.5
6500.3	7/25/2005	CAS K	FD	< 0.5
6500.3	7/25/2005	CAS K	SA	< 0.5
6500.3	7/25/2005	OSL	SS	< 0.5
6500.3	10/24/2006	CAS K	SA	< 0.5
6500.3	9/15/2007	CAS K	FD	< 0.5
6500.3	9/15/2007	CAS K	SA	< 0.5
6500.3	9/15/2007	LOSL	SS	**1.35**
6500.3	9/22/2008	CAS K	SA	< 0.5
6500.3	9/22/2009	CAS	SA	< 0.5
6500.3	9/6/2010	CAS	FD	< 0.5

SA = Sample, FD = Field Duplicate, SS - Split Sample
UNK - Unknown, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes

Table 2-3
Group 1L-PMWN-LA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
6500.3	9/6/2010	CAS	SA	< 0.5
6500.3	9/6/2010	OSL	SS	< 0.5
6500.3	9/8/2012	CAS	SA	< 0.5
6500.3	9/16/2013	ALS	SA	< 0.5
6500.3	9/22/2014	ALS	SA	< 0.5
6500.3	7/25/2015	ALS	SA	< 0.5
6500.3	9/3/2016	ALS	SA	< 0.5
6502.2	10/21/1992	CAL	SA	< 0.5
6502.2	3/15/1994	OSL	SA	< 3.4
6502.2	3/9/1995	OSL	SA	< 3.4
6502.2	4/16/1997	OSL	SA	< 3.5
6502.2	7/29/1999	QES	SA	**0.73**
6502.2	7/15/2000	STL	SA	**0.58**
6502.2	6/24/2002	CAS K	SA	< 0.5
6502.2	6/24/2002	CAS K	SA	< 0.5
6502.2	6/30/2003	CAS K	SA	< 0.5
6502.2	7/3/2004	CAS K	SA	< 0.5
6502.2	7/26/2005	CAS K	SA	**0.58**
6502.2	11/4/2006	CAS K	SA	< 0.5
6502.2	9/17/2007	CAS K	SA	< 0.5
6502.2	9/22/2008	CAS K	SA	< 0.5
6502.2	9/22/2009	CAS	SA	< 0.5
6502.2	9/5/2010	CAS	SA	< 0.5
6502.2	9/5/2012	CAS	SA	< 0.5
6502.2	9/5/2012	CAS	SA	< 0.5
6502.2	9/18/2013	ALS	SA	< 0.5
6502.2	9/22/2014	ALS	SA	< 0.5

SA = Sample, FD = Field Duplicate, SS - Split Sample
UNK - Unknown, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes

Table 2-3
Group 1L-PMWN-LA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
6502.2	7/25/2015	ALS	SA	< 0.5
6502.2	9/3/2016	ALS	SA	< 0.5
6502.3	10/21/1992	CAL	SA	< 0.5
6502.3	3/15/1994	OSL	SA	< 3.4
6502.3	3/9/1995	OSL	SA	< 3.4
6502.3	4/15/1997	OSL	SA	< 3.5
6502.3	2/23/1999	QES	FD	< 0.5
6502.3	2/23/1999	QES	SA	< 0.5
6502.3	7/29/1999	QES	SA	**0.3**
6502.3	7/15/2000	STL	SA	< 0.5
6502.3	6/20/2002	CAS K	SA	< 0.5
6502.3	6/30/2003	CAS K	SA	< 0.5
6502.3	12/9/2003	CAS K	SA	< 0.5
6502.3	7/3/2004	CAS K	SA	< 0.5
6502.3	11/29/2004	CAS K	SA	< 0.5
6502.3	7/25/2005	CAS K	SA	< 0.5
6502.3	11/4/2006	CAS K	SA	< 0.5
6502.3	9/17/2007	CAS K	SA	< 0.5
6502.3	9/22/2008	CAS K	SA	< 0.5
6502.3	9/22/2009	CAS	SA	< 0.5
6502.3	9/5/2010	CAS	SA	< 0.5
6502.3	9/5/2012	CAS	SA	< 0.5
6502.3	9/18/2013	ALS	SA	< 0.5
6502.3	9/22/2014	ALS	SA	< 0.5
6502.3	7/25/2015	ALS	SA	< 0.5
6502.3	9/3/2016	ALS	SA	< 0.5
6503.2	11/17/1992	OSL	SA	**64**

SA = Sample, FD = Field Duplicate, SS - Split Sample
UNK - Unknown, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes

Table 2-3
Group 1L-PMWN-LA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
6503.2	11/17/1992	OSL	UNK	**33**
6503.2	3/14/1994	OSL	SA	**48**
6503.2	3/10/1995	OSL	SA	< 3.4
6503.2	3/13/1995	QES	SA	**2.9**
6503.2	3/13/1996	OSL	SA	< 3.5
6503.2	4/16/1997	OSL	SA	< 3.5
6503.2	8/3/1998	OSL	SA	< 3
6503.2	4/28/1999	OSL	SA	< 3.4
6503.2	7/28/1999	OSL	SA	< 3.4
6503.2	7/18/2000	STL	SA	< 0.5
6503.2	8/23/2001	OSL	SS	< 0.5
6503.2	8/23/2001	STL	SA	< 0.5
6503.2	6/20/2002	CAS K	SA	< 0.5
6503.2	6/19/2003	CAS K	SA	< 0.5
6503.2	7/3/2004	CAS K	SA	< 0.5
6503.2	7/27/2005	CAS K	SA	< 0.5
6503.2	11/3/2006	CAS K	SA	< 0.5
6503.2	9/17/2007	CAS K	FD	< 0.5
6503.2	9/17/2007	CAS K	SA	< 0.5
6503.2	9/19/2007	LOSL	SS	< 0.5
6503.2	9/23/2008	CAS K	SA	< 0.5
6503.2	9/15/2009	CAS	SA	< 0.5
6503.2	9/15/2009	LOSL	SS	< 3.5
6503.2	9/7/2010	CAS	SA	< 0.5
6503.2	9/17/2012	CAS	SA	< 0.5
6503.2	9/23/2013	ALS	SA	< 0.5
6503.2	9/23/2014	ALS	SA	< 0.5

SA = Sample, FD = Field Duplicate, SS - Split Sample
UNK - Unknown, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes

Table 2-3
Group 1L-PMWN-LA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
6503.2	8/3/2015	ALS	SA	< 0.5
6503.2	9/14/2016	ALS	SA	< 0.5
6503.3	11/16/1992	OSL	SA	**20**
6503.3	3/14/1994	OSL	SA	< 3.4
6503.3	3/10/1995	OSL	SA	< 3.4
6503.3	3/13/1996	OSL	SA	< 3.5
6503.3	4/16/1997	OSL	SA	< 3.5
6503.3	8/3/1998	OSL	SA	< 3
6503.3	4/28/1999	OSL	SA	< 3.4
6503.3	7/28/1999	OSL	SA	< 3.4
6503.3	7/19/2000	STL	SA	< 0.5
6503.3	8/23/2001	STL	SA	< 0.5
6503.3	6/24/2002	CAS K	SA	< 0.5
6503.3	6/24/2002	CAS K	SA	< 0.53
6503.3	6/19/2003	CAS K	SA	< 0.5
6503.3	7/3/2004	CAS K	SA	< 0.5
6503.3	7/26/2005	CAS K	SA	< 0.5
6503.3	11/3/2006	CAS K	SA	< 0.5
6503.3	9/17/2007	CAS K	SA	< 0.5
6503.3	9/23/2008	CAS K	SA	< 0.5
6503.3	9/15/2009	CAS	SA	< 0.5
6503.3	9/7/2010	CAS	SA	< 0.5
6503.3	9/17/2012	CAS	SA	< 0.5
6503.3	9/23/2013	ALS	SA	< 0.5
6503.3	9/23/2014	ALS	SA	< 0.5
6503.3	8/3/2015	ALS	SA	< 0.5
6503.3	9/14/2016	ALS	SA	< 0.5

SA = Sample, FD = Field Duplicate, SS - Split Sample
UNK - Unknown, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes

Table 2-4
Group 2L-IMWN-LA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
3018.2	6/28/1987	CAL	SA	**2300**
3018.2	12/6/1987	CAL	SA	**1510**
3018.2	12/11/1991	OSL	SA	**849**
3018.2	2/3/1992	OSL	FD	**--**
3018.2	2/3/1992	OSL	SA	**1480**
3018.2	5/13/1992	OSL	SA	**894**
3018.2	8/18/1992	OSL	SA	**727**
3018.2	10/27/1992	OSL	SA	**662**
3018.2	3/9/1994	OSL	SA	**318.4**
3018.2	3/10/1995	OSL	SA	**873**
3018.2	3/10/1995	OSL	UNK	**544.7**
3018.2	3/18/1996	OSL	FD	**691**
3018.2	3/18/1996	OSL	SA	**1058**
3018.2	3/18/1996	QES	SA	**--**
3018.2	4/17/1997	OSL	SA	**747.6**
3018.2	8/3/1998	OSL	FD	**1430.9**
3018.2	8/3/1998	OSL	SA	**1530.3**
3018.2	4/29/1999	OSL	SA	**1127.6**
3018.2	8/3/1999	OSL	SA	**340.4**
3018.2	7/22/2000	STL	SA	**8.6**

SA = Sample, FD = Field Duplicate, SS - Split Sample
UNK - Unknown, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes.

Table 2-4
Group 2L-IMWN-LA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
3018.2	9/4/2001	STL	SA	**340**
3018.2	6/26/2002	CAS K	SA	**68**
3018.2	7/1/2003	CAS K	SA	**34**
3018.2	7/6/2004	CAS K	SA	**49**
3018.2	7/18/2005	CAS K	SS	**110**
3018.2	7/18/2005	OSL	FD	**54.9**
3018.2	7/18/2005	OSL	SA	**83.6**
3018.2	11/8/2006	CAS K	SS	**18**
3018.2	11/8/2006	OSL	FD	**63.3**
3018.2	11/8/2006	OSL	SS	**55.9**
3018.2	9/25/2007	CAS K	SS	**16**
3018.2	9/25/2007	LOSL	FD	**22.1**
3018.2	9/25/2007	LOSL	SA	**30.2**
3018.2	9/19/2008	LOSL	FD	**20.2**
3018.2	9/19/2008	LOSL	SA	**20.5**
3018.2	9/11/2009	LOSL	FD	**9.4**
3018.2	9/11/2009	LOSL	SA	**9.1**
3018.2	9/3/2010	LOSL	SA	**16.6**
3018.2	9/10/2011	LOSL	SA	**4.95**
3018.2	9/10/2012	LOSL	SA	**19.1**

SA = Sample, FD = Field Duplicate, SS - Split Sample
UNK - Unknown, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes.

Table 2-4
Group 2L-IMWN-LA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
3018.2	9/9/2013	LOSL	SA	**3.24**
3018.2	9/5/2014	LOSL	SA	**19.1**
3018.2	7/31/2015	LOSL	SA	**16.6**
3018.2	8/28/2016	ALS	SA	**2.5**
3018.2	8/28/2016	ALS	FD	**2.5**
3018.2	8/28/2016	LOSL	SA	**3.5**
3018.2	8/28/2016	LOSL	FD	**3.5**
6002.2	6/30/1987	CAL	SA	**1700**
6002.2	12/7/1987	CAL	SS	**1500**
6002.2	12/7/1987	CAL	SSFD	--
6002.2	12/7/1987	CHA	SA	< 0.9
6002.2	12/15/1991	OSL	SA	**672**
6002.2	1/31/1992	OSL	SA	**1404**
6002.2	5/12/1992	OSL	SA	**615**
6002.2	5/12/1992	OSL	UNK	**694**
6002.2	8/11/1992	OSL	SA	**743**
6002.2	10/22/1992	OSL	SA	**715**
6002.2	3/14/1994	OSL	SA	**361.5**
6002.2	3/10/1995	OSL	SA	**682.5**
6002.2	3/13/1995	QES	SA	**1.6**

SA = Sample, FD = Field Duplicate, SS - Split Sample
UNK - Unknown, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes.

Table 2-4
Group 2L-IMWN-LA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
6002.2	3/19/1996	OSL	SA	**603**
6002.2	3/19/1996	QES	SA	--
6002.2	4/9/1997	OSL	SA	**1371**
6002.2	3/30/1998	OSL	SA	**1653.5**
6002.2	8/5/1998	OSL	SA	**1537.8**
6002.2	4/29/1999	OSL	FD	**1956.9**
6002.2	4/29/1999	OSL	SA	**2058.2**
6002.2	8/3/1999	OSL	SA	**1354.3**
6002.2	7/22/2000	STL	SA	**690**
6002.2	9/5/2001	STL	SA	**290**
6002.2	6/26/2002	CAS K	SA	**1200**
6002.2	6/26/2003	CAS K	SA	**1300**
6002.2	7/3/2004	CAS K	SA	**1300**
6002.2	7/5/2004	CAS K	FD	**1300**
6002.2	7/5/2004	LOSL	SS	--
6002.2	7/5/2004	LOSL	SS	**525.5**
6002.2	7/19/2005	OSL	SA	**338.2**
6002.2	11/10/2006	OSL	SS	**349**
6002.2	9/21/2007	LOSL	SA	**330.2**
6002.2	9/26/2008	LOSL	SA	**178**

SA = Sample, FD = Field Duplicate, SS - Split Sample
UNK - Unknown, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes.

Table 2-4
Group 2L-IMWN-LA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
6002.2	9/14/2009	CAS	SA	**110**
6002.2	9/14/2009	LOSL	SS	**98.2**
6002.2	9/3/2010	LOSL	SSFD	**69.1**
6002.2	9/4/2010	CAS	SA	**93**
6002.2	9/4/2010	LOSL	SA	**57.3**
6002.2	9/16/2011	CAS	SS	**53**
6002.2	9/16/2011	LOSL	FD	**58**
6002.2	9/16/2011	LOSL	SA	**36.7**
6002.2	9/12/2012	LOSL	SA	**32.8**
6002.2	9/14/2013	LOSL	SA	**186**
6002.2	9/9/2014	LOSL	SA	**52.3**
6002.2	8/1/2015	LOSL	SA	**37.1**
6002.2	8/27/2016	ALS	SA	**10**
6002.2	8/27/2016	LOSL	SA	**17.5**
6002.3	6/28/1987	CAL	SA	**230**
6002.3	12/7/1987	CAL	SA	**380**
6002.3	12/13/1991	OSL	SA	**192**
6002.3	1/31/1992	OSL	SA	**280**
6002.3	5/12/1992	OSL	SA	**199**
6002.3	8/12/1992	OSL	SA	**253**

SA = Sample, FD = Field Duplicate, SS - Split Sample
UNK - Unknown, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes.

Table 2-4
Group 2L-IMWN-LA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
6002.3	10/22/1992	OSL	SA	**317**
6002.3	3/14/1994	OSL	SA	**402**
6002.3	3/14/1994	OSL	UNK	**346**
6002.3	3/10/1995	OSL	SA	**200.8**
6002.3	3/19/1996	OSL	SA	**709**
6002.3	4/9/1997	OSL	SA	**578.4**
6002.3	3/30/1998	OSL	SA	**849.9**
6002.3	8/3/1998	OSL	SA	**799.6**
6002.3	4/29/1999	OSL	SA	**843.3**
6002.3	8/3/1999	OSL	SA	**650.4**
6002.3	7/22/2000	STL	SA	**300**
6002.3	9/4/2001	STL	SA	**230**
6002.3	6/26/2002	CAS K	SA	**740**
6002.3	6/26/2003	CAS K	FD	**460**
6002.3	6/26/2003	CAS K	SA	**460**
6002.3	12/13/2003	CAS K	SA	**1500**
6002.3	9/9/2014	LOSL	SA	**1360**
6002.3	8/27/2016	ALS	SA	**220**
6002.3	8/27/2016	LOSL	SA	**539**
6003.2	6/28/1987	CAL	SA	**--**

SA = Sample, FD = Field Duplicate, SS - Split Sample
UNK - Unknown, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes.

Table 2-4
Group 2L-IMWN-LA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
6003.2	12/6/1987	CAL	SA	--
6003.2	12/16/1991	OSL	SA	**123**
6003.2	2/4/1992	OSL	SA	**160**
6003.2	5/13/1992	OSL	SA	**166**
6003.2	8/13/1992	OSL	SA	**156**
6003.2	10/26/1992	OSL	SA	**125**
6003.2	3/15/1994	OSL	SA	**14.9**
6003.2	3/9/1995	OSL	SA	**428.2**
6003.2	3/11/1996	OSL	SA	**311**
6003.2	4/15/1997	OSL	SA	**978**
6003.2	3/30/1998	OSL	SA	**873.5**
6003.2	8/4/1998	OSL	SA	**972.1**
6003.2	4/28/1999	OSL	SA	**70.2**
6003.2	8/3/1999	OSL	SA	**707.6**
6003.2	7/22/2000	STL	SA	**330**
6003.2	9/5/2001	STL	SA	**160**
6003.2	6/26/2002	CAS K	FD	**650**
6003.2	6/26/2002	CAS K	SA	**610**
6003.2	6/25/2003	CAS K	FD	**320**
6003.2	6/25/2003	CAS K	SA	**330**

SA = Sample, FD = Field Duplicate, SS - Split Sample
UNK - Unknown, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes.

Table 2-4
Group 2L-IMWN-LA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
6003.2	6/25/2003	OSL	SS	**199.81**
6003.2	12/13/2003	CAS K	SA	**440**
6003.2	7/3/2004	CAS K	SA	**590**
6003.2	12/1/2004	CAS K	SA	**300**
6003.2	7/18/2005	OSL	SA	**271**
6003.2	11/8/2006	OSL	SA	**372**
6003.2	9/20/2007	LOSL	SA	**177.6**
6003.2	9/26/2008	LOSL	SA	**173.9**
6003.2	9/14/2009	LOSL	SA	**187.5**
6003.2	9/3/2010	LOSL	SA	**118**
6003.2	9/16/2011	LOSL	SA	**47.3**
6003.2	9/12/2012	LOSL	SA	**66.4**
6003.2	9/16/2013	LOSL	SA	**77.8**
6003.2	9/6/2014	LOSL	SA	**23**
6003.2	8/1/2015	LOSL	SA	**32.2**
6003.2	8/27/2016	ALS	SA	**39**
6003.2	8/27/2016	LOSL	SA	**21.6**
6003.3	6/30/1987	CAL	SA	**--**
6003.3	12/6/1987	CAL	SA	**--**
6003.3	12/16/1991	OSL	SA	< 3

SA = Sample, FD = Field Duplicate, SS - Split Sample
UNK - Unknown, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes.

Table 2-4
Group 2L-IMWN-LA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
6003.3	1/29/1992	CAL	SA	**1**
6003.3	5/13/1992	OSL	SA	< 3
6003.3	8/13/1992	OSL	SA	< 3
6003.3	10/26/1992	OSL	SA	< 3
6003.3	3/15/1994	OSL	SA	**4.4**
6003.3	3/9/1995	OSL	SA	< 3.4
6003.3	3/11/1996	OSL	SA	**15.2**
6003.3	4/15/1997	OSL	SA	**29.6**
6003.3	3/30/1998	OSL	FD	**6.9**
6003.3	3/30/1998	OSL	SA	**9.5**
6003.3	8/3/1998	OSL	SA	< 3
6003.3	4/28/1999	OSL	SA	**31.3**
6003.3	8/2/1999	OSL	SA	**21.8**
6003.3	8/2/1999	QES	SA	**17**
6003.3	7/21/2000	OSL	SA	**24**
6003.3	7/21/2000	STL	FD	**14**
6003.3	7/21/2000	STL	R1	**13**
6003.3	7/21/2000	STL	R2	**13**
6003.3	7/21/2000	STL	SA	**14**
6003.3	9/4/2001	OSL	SS	**22.9**

SA = Sample, FD = Field Duplicate, SS - Split Sample
UNK - Unknown, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes.

Table 2-4
Group 2L-IMWN-LA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
6003.3	9/4/2001	STL	SA	**8.2**
6003.3	6/25/2002	CAS K	SA	**45**
6003.3	6/25/2002	CAS K	SA	< 55
6003.3	6/25/2002	OSL	SS	**10.69**
6003.3	6/25/2003	CAS K	SA	**18**
6003.3	6/25/2003	OSL	SS	**5.69**
6003.3	7/3/2004	CAS K	SA	**150**
6003.3	7/18/2005	OSL	SA	**29.8**
6003.3	11/8/2006	OSL	SA	**80.3**
6003.3	9/25/2007	CAS K	SS	**420**
6003.3	9/25/2007	LOSL	FD	**343.4**
6003.3	9/25/2007	LOSL	SA	**335.6**
6003.3	9/26/2008	LOSL	SA	**82.9**
6003.3	9/14/2009	CAS	SA	**130**
6003.3	9/14/2009	LOSL	SS	**109.2**
6003.3	9/3/2010	LOSL	SA	**101.2**
6003.3	9/16/2011	CAS	SS	**130**
6003.3	9/16/2011	LOSL	SA	**124**
6003.3	9/12/2012	LOSL	SA	**117**
6003.3	9/16/2013	LOSL	SA	**70.2**

SA = Sample, FD = Field Duplicate, SS - Split Sample
UNK - Unknown, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes.

Table 2-4
Group 2L-IMWN-LA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
6003.3	9/6/2014	LOSL	SA	**63.2**
6003.3	8/1/2015	LOSL	SA	**107**
6003.3	8/27/2016	ALS	SA	**170**
6003.3	8/27/2016	ALS	FD	**180**
6003.3	8/27/2016	LOSL	SA	**62.9**
6007.1	12/5/1991	OSL	SA	**1018**
6007.1	1/30/1992	OSL	SA	**1802**
6007.1	5/8/1992	OSL	SA	**1363**
6007.1	8/17/1992	OSL	FD	**1176**
6007.1	8/17/1992	OSL	SA	**866**
6007.1	10/27/1992	OSL	SA	**656**
6007.1	3/16/1994	OSL	SA	**37.3**
6007.1	3/14/1995	OSL	SA	**188.2**
6007.1	3/14/1995	OSL	UNK	**259.2**
6007.1	3/19/1996	OSL	FD	**1385**
6007.1	3/19/1996	OSL	SA	**1673**
6007.1	3/19/1996	QES	SA	**--**
6007.1	4/16/1997	OSL	SA	**887**
6007.1	8/5/1998	OSL	SA	**1528.9**
6007.1	4/29/1999	OSL	SA	**492**

SA = Sample, FD = Field Duplicate, SS - Split Sample
UNK - Unknown, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes.

Table 2-4
Group 2L-IMWN-LA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
6007.1	8/3/1999	OSL	SA	**748.4**
6007.1	7/21/2000	STL	SA	**610**
6007.1	9/4/2001	STL	SA	**21**
6007.1	6/26/2002	CAS K	SA	**1200**
6007.1	7/1/2003	CAS K	SA	**51**
6007.1	7/6/2004	CAS K	SA	**1100**
6007.1	7/19/2005	OSL	SA	**286.5**
6007.1	11/10/2006	OSL	SA	**657.5**
6007.1	9/21/2007	LOSL	SA	**374.2**
6007.1	9/28/2008	LOSL	SA	**500.4**
6007.1	9/15/2009	LOSL	SA	**546**
6007.1	9/4/2010	LOSL	SA	**405.2**
6007.1	9/16/2011	LOSL	SA	**401**
6007.1	9/11/2012	LOSL	SA	**420**
6007.1	9/13/2013	LOSL	SA	**286**
6007.1	9/6/2014	LOSL	SA	**291**
6007.1	8/3/2015	LOSL	SA	**182**
6007.1	8/28/2016	ALS	SA	**390**
6007.1	8/28/2016	LOSL	SA	**204**

SA = Sample, FD = Field Duplicate, SS - Split Sample
UNK - Unknown, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes.

TABLE 3-1

GROUP 1U
PERIMETER MONITORING WELL NETWORK

Well No.	Depth of Screen or Open Interval (feet bgs)	Biennial Sampling PCP (8151M)[1] Field Parameters[2]	Purge Water Containment (Y/N)	Annual Water Levels[3]
3011.1	14-17	X	N	X
3021.1	17-20	X	N	X
3040.1	25-35	X	N	X
3047.1	12-27	X	N	X
6001.1	42-45	X	N	X
6002.1	19-22	X	N	X
6003.1	29-32	X	N	X
6503.1	25-35	X	N	X

1 – Analysis of PCP by Method 8151M will be performed by Columbia Analytical Services.
2 – Field Parameters consist of dissolved oxygen, temperature, pH, specific conductance and oxidation/reduction potential.
3 - Groundwater level measurements will be collected annually during the sampling event.

TABLE 3-2

GROUP 2U
INTERIOR MONITORING WELL NETWORK

Well No.	Depth of Screen or Open Interval (feet bgs)	Annual Sampling PCP (8040M)[1] Field Parameters[2]	Purge Water Containment (Y/N)	Annual Water & NAPL Levels[3]
3002.1	24.5-31.5	X	Y	X
3013.1	20.4-23.4	X	Y	X
3018.1	40-43	X	Y	X
3041.1	20-30	X	Y	X
3041.2	44-54	X	Y	X
3042.1	20-30	X	Y	X
3042.2	42-52	X	Y	X
3043.1	19-29	X	N	X
3043.2	40-50	X	N	X
8006.1	38-40	X	N	X

1 – Analysis of PCP (8040M) will be performed by Libby On-Site Laboratory.
2 – Field Parameters consist of dissolved oxygen, temperature, pH, specific conductance and oxidation/reduction potential.
3 - Groundwater level and NAPL measurements will be collected annually during the sampling event.

Table 3-3
Group 1U-PMWN-UA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
1004.1	6/18/1992	CAL	SA	< 0.5
1004.1	6/18/1992	CAL	UNK	< 0.5
1004.1	3/25/1993	CAL	SA	< 0.5
1004.1	3/8/1994	CAL	SA	< 0.5
1004.1	3/13/1995	OSL	SA	< 3.4
1004.1	3/13/1995	QES	SA	< 0.5
1004.1	3/13/1996	QES	SA	< 0.5
1004.1	4/10/1997	QES	SA	< 0.5
1004.1	8/5/1998	QES	SA	< 0.5
1004.1	7/27/1999	QES	SA	< 0.5
1004.1	7/24/2000	STL	SA	< 0.5
1004.1	9/5/2001	STL	SA	< 0.5
1004.1	6/20/2002	CAS K	SA	< 0.5
1004.1	7/1/2003	CAS K	SA	< 0.5
1004.1	7/7/2004	CAS K	SA	< 0.5
1004.1	8/2/2005	CAS K	SA	**1.1**
1004.1	5/16/2006	CAS K	FD	< 0.5
1004.1	5/16/2006	CAS K	SA	< 0.5
1016.1	6/17/1992	CAL	SA	< 0.5
1016.1	4/15/1993	CAL	SA	< 0.5
1016.1	3/15/1994	CAL	SA	< 0.5

SA = Sample , FD = Field Duplicate , SS - Split Sample
UKN - Unknown, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes

Table 3-3
Group 1U-PMWN-UA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
1016.1	3/15/1994	OSL	UNK	< 3.4
1016.1	3/13/1995	QES	SA	< 0.5
1016.1	3/20/1996	QES	SA	< 0.5
1016.1	8/5/1998	QES	SA	< 0.5
1016.1	7/27/1999	QES	SA	< 0.5
1016.1	7/24/2000	STL	SA	< 0.5
1016.1	9/5/2001	STL	SA	< 0.5
1016.1	7/3/2002	CAS K	SA	< 0.5
1016.1	7/7/2003	CAS K	SA	< 0.5
1016.1	7/7/2004	CAS K	SA	< 0.5
1016.1	8/2/2005	CAS K	SA	< 0.5
3011.1	6/16/1992	CAL	SA	< 0.5
3011.1	6/16/1992	CAL	UNK	< 0.5
3011.1	3/29/1993	CAL	SA	< 0.5
3011.1	3/8/1994	CAL	SA	< 0.5
3011.1	3/7/1995	QES	SA	< 0.5
3011.1	3/12/1996	QES	SA	< 0.5
3011.1	4/15/1997	QES	SA	< 0.5
3011.1	8/4/1998	QES	SA	< 0.5
3011.1	7/29/1999	QES	SA	< 0.5
3011.1	7/19/2000	STL	SA	< 0.5

SA = Sample , FD = Field Duplicate , SS - Split Sample
UKN - Unknown, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes

Table 3-3
Group 1U-PMWN-UA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
3011.1	8/24/2001	OSL	SS	< 0.5
3011.1	8/24/2001	STL	SA	< 0.5
3011.1	6/20/2002	CAS K	SA	< 0.5
3011.1	6/26/2003	CAS K	SA	**0.52**
3011.1	7/1/2004	CAS K	SA	< 0.5
3011.1	8/1/2005	CAS K	SA	< 0.5
3011.1	11/4/2006	CAS K	SA	< 0.5
3011.1	9/15/2007	CAS K	SA	< 0.5
3011.1	4/20/2008	CAS K	SA	< 1
3011.1	4/20/2008	CAS K	SA	< 0.5
3011.1	9/24/2008	CAS K	SA	< 0.5
3011.1	9/28/2009	CAS	SA	< 0.5
3011.1	9/6/2010	CAS	SA	< 0.5
3011.1	9/15/2012	CAS	SA	< 0.5
3011.1	9/21/2013	ALS	SA	< 0.5
3011.1	9/23/2014	ALS	SA	< 0.5
3011.1	7/24/2015	ALS	SA	< 0.5
3011.1	9/3/2016	ALS	SA	< 0.5
3021.1	6/26/1987	CAL	SA	--
3021.1	12/2/1987	CAL	SS	--
3021.1	12/2/1987	CHA	SA	< 1

SA = Sample , FD = Field Duplicate , SS - Split Sample
UKN - Unknown, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes

Table 3-3
Group 1U-PMWN-UA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
3021.1	6/15/1992	CAL	SA	**2.2**
3021.1	3/29/1993	CAL	SA	< 0.5
3021.1	3/8/1994	CAL	SA	< 0.5
3021.1	3/7/1995	QES	SA	< 0.5
3021.1	3/12/1996	QES	SA	< 0.5
3021.1	4/15/1997	QES	SA	< 0.5
3021.1	8/4/1998	QES	SA	**18**
3021.1	8/2/1999	QES	SA	**20**
3021.1	7/18/2000	STL	SA	< 0.5
3021.1	8/24/2001	STL	SA	< 0.5
3021.1	6/24/2002	CAS K	SA	< 0.5
3021.1	6/24/2002	CAS K	SA	< 0.53
3021.1	6/19/2003	CAS K	SA	< 0.5
3021.1	6/30/2004	CAS K	SA	< 0.5
3021.1	8/1/2005	CAS K	SA	< 0.5
3021.1	10/24/2006	CAS K	SA	< 0.5
3021.1	9/15/2007	CAS K	SA	< 0.5
3021.1	4/19/2008	CAS K	SA	< 1
3021.1	4/19/2008	CAS K	SA	< 0.5
3021.1	9/24/2008	CAS K	SA	< 0.5
3021.1	9/24/2009	CAS	SA	< 0.5

SA = Sample , FD = Field Duplicate , SS - Split Sample
UKN - Unknown, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes

Table 3-3
Group 1U-PMWN-UA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
3021.1	9/6/2010	CAS	SA	< 0.5
3021.1	9/14/2012	CAS	SA	< 0.5
3021.1	9/21/2013	ALS	SA	< 0.5
3021.1	9/22/2014	ALS	SA	< 0.5
3021.1	7/24/2015	ALS	SA	< 0.5
3021.1	9/3/2016	ALS	SA	< 0.5
3040.1	6/24/1992	CAL	SA	< 0.5
3040.1	6/24/1992	OSL	SA	< 7
3040.1	6/24/1992	OSL	SS	< 6
3040.1	6/24/1992	OSL	SSFD	< 7
3040.1	3/30/1993	CAL	SA	**82**
3040.1	3/8/1994	CAL	SA	**1000**
3040.1	3/8/1994	CAL	UNK	**1000**
3040.1	3/7/1995	QES	SA	**1.2**
3040.1	3/18/1996	OSL	SA	< 3.4
3040.1	3/18/1996	QES	SA	< 0.5
3040.1	4/15/1997	QES	SA	< 0.5
3040.1	8/4/1998	QES	SA	< 0.5
3040.1	7/26/1999	QES	SA	**0.55**
3040.1	7/15/2000	STL	SA	< 0.5
3040.1	8/24/2001	STL	SA	**1200**

SA = Sample , FD = Field Duplicate , SS - Split Sample
UKN - Unknown, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes

Table 3-3
Group 1U-PMWN-UA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
3040.1	6/27/2002	CAS K	SA	< 0.5
3040.1	6/19/2003	CAS K	SA	< 0.5
3040.1	7/6/2004	CAS K	SA	**3.9**
3040.1	8/1/2005	CAS K	SA	< 0.5
3040.1	11/4/2006	CAS K	SA	**1000**
3040.1	9/26/2007	CAS K	SA	**1.3**
3040.1	4/28/2008	CAS K	SA	< 0.99
3040.1	4/28/2008	CAS K	SA	< 0.5
3040.1	9/24/2008	CAS K	SA	< 0.5
3040.1	9/24/2009	CAS	SA	**27**
3040.1	9/5/2010	CAS	SA	**160**
3040.1	9/22/2012	CAS	SA	<0.5
3040.1	9/21/2013	ALS	SA	<0.5
3040.1	9/23/2014	ALS	SA	<0.5
3040.1	7/26/2015	ALS	SA	<0.5 U
3040.1	9/3/2016	ALS	SA	<0.5
3047.1	12/30/2005	CAS K	SA	< 0.5
3047.1	10/24/2006	CAS K	SA	< 0.5
3047.1	9/15/2007	CAS K	SA	< 0.5
3047.1	4/19/2008	CAS K	SA	< 1
3047.1	4/19/2008	CAS K	SA	< 0.5

SA = Sample , FD = Field Duplicate , SS - Split Sample
UKN - Unknown, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes

Table 3-3
Group 1U-PMWN-UA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
3047.1	9/15/2008	CAS K	SA	< 0.5
3047.1	9/22/2009	CAS	FD	< 0.5
3047.1	9/22/2009	CAS	SA	< 0.5
3047.1	9/6/2010	CAS	SA	< 0.5
3047.1	9/14/2012	CAS	SA	**0.89**
3047.1	9/18/2013	ALS	SA	< 0.5
3047.1	9/22/2014	ALS	SA	< 0.5
3047.1	7/24/2015	ALS	SA	< 0.5
3047.1	8/26/2016	ALS	SA	< 0.5
6001.1	6/28/1987	CAL	SA	--
6001.1	6/28/1987	CAL	SS	--
6001.1	9/23/1987	CAL	SS	--
6001.1	9/23/1987	CAL	UNK	--
6001.1	9/23/1987	CHA	SS	--
6001.1	9/23/1987	CHA	SSFD	--
6001.1	12/6/1987	CAL	SS	--
6001.1	12/6/1987	CHA	SA	< 0.9
6001.1	4/12/1988	CAL	SS	--
6001.1	12/3/1991	CAL	SA	< 0.5
6001.1	12/3/1991	OSL	SA	< 3
6001.1	7/2/1992	OSL	FD	< 3

SA = Sample , FD = Field Duplicate , SS - Split Sample
UKN - Unknown, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes

Table 3-3
Group 1U-PMWN-UA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
6001.1	7/2/1992	OSL	SA	< 3
6001.1	3/15/1993	OSL	SA	< 3
6001.1	3/10/1994	OSL	SA	**4.8**
6001.1	3/3/1995	OSL	SA	< 3.4
6001.1	3/15/1996	OSL	SA	< 3.5
6001.1	4/8/1997	OSL	SA	< 3.4
6001.1	7/30/1998	OSL	SA	**6.9**
6001.1	7/29/1999	OSL	SA	**7.8**
6001.1	7/21/2000	OSL	SA	< 3.4
6001.1	9/1/2001	OSL	SS	< 0.5
6001.1	6/25/2002	OSL	SA	< 0.5
6001.1	6/27/2003	OSL	SS	< 0.5
6001.1	12/8/2003	CAS K	SA	< 0.5
6001.1	7/2/2004	LOSL	SA	**0.94**
6001.1	7/2/2004	LOSL	SA	< 3.5
6001.1	11/19/2004	CAS K	SA	< 0.5
6001.1	7/27/2005	CAS K	FD	< 0.5
6001.1	7/27/2005	CAS K	SA	< 0.5
6001.1	7/27/2005	OSL	SS	< 0.5
6001.1	10/24/2006	CAS K	SA	< 0.5
6001.1	9/19/2007	CAS K	SA	< 0.5

SA = Sample , FD = Field Duplicate , SS - Split Sample
UKN - Unknown, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes

Table 3-3
Group 1U-PMWN-UA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
6001.1	4/28/2008	CAS K	SA	< 0.98
6001.1	4/28/2008	CAS K	SA	--
6001.1	9/24/2008	CAS K	SA	< 0.5
6001.1	9/23/2009	CAS	SA	< 0.5
6001.1	9/7/2010	CAS	SA	< 0.5
6001.1	9/22/2012	CAS	SA	< 0.5
6001.1	9/20/2013	ALS	SA	< 0.5
6001.1	9/23/2014	ALS	SA	< 0.5
6001.1	8/2/2015	ALS	SA	< 0.5
6001.1	9/23/2016	ALS	SA	**0.18**
6002.1	6/28/1987	CAL	SA	**2.2**
6002.1	6/28/1987	CHA	SA	--
6002.1	6/28/1987	CHA	SS	--
6002.1	9/23/1987	CAL	SS	--
6002.1	9/23/1987	CAL	SS	--
6002.1	9/23/1987	CAL	UNK	--
6002.1	9/23/1987	CHA	SS	--
6002.1	12/7/1987	CAL	SS	**1.5**
6002.1	12/7/1987	CHA	SA	< 4
6002.1	4/12/1988	CAL	SS	--
6002.1	4/12/1988	CAL	SS	--

SA = Sample , FD = Field Duplicate , SS - Split Sample
UKN - Unknown, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes

Table 3-3
Group 1U-PMWN-UA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
6002.1	4/12/1988	CAL	SSFD	--
6002.1	12/12/1991	OSL	SA	**9**
6002.1	1/31/1992	OSL	SA	**7**
6002.1	5/11/1992	CAL	SA	**0.7**
6002.1	5/11/1992	OSL	SA	< 3
6002.1	5/11/1992	OSL	SS	< 3
6002.1	5/11/1992	OSL	SS	--
6002.1	5/11/1992	OSL	SSFD	< 3
6002.1	3/25/1993	CAL	SA	< 0.5
6002.1	3/8/1994	CAL	SA	**0.61**
6002.1	3/13/1995	QES	SA	**1.6**
6002.1	3/19/1996	QES	SA	**0.76**
6002.1	4/14/1997	QES	SA	< 0.5
6002.1	8/4/1998	QES	SA	< 0.5
6002.1	7/27/1999	QES	SA	**0.51**
6002.1	7/22/2000	STL	SA	< 0.5
6002.1	8/27/2001	STL	SA	< 0.5
6002.1	6/19/2002	CAS K	SA	< 0.5
6002.1	6/26/2003	CAS K	SA	< 0.5
6002.1	7/5/2004	CAS K	SA	< 0.5
6002.1	7/27/2005	CAS K	SA	< 0.5

SA = Sample , FD = Field Duplicate , SS - Split Sample
UKN - Unknown, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes

Table 3-3
Group 1U-PMWN-UA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
6002.1	11/10/2006	CAS K	SA	< 0.5
6002.1	9/26/2007	CAS K	SA	< 0.5
6002.1	4/26/2008	CAS K	SA	< 1
6002.1	4/26/2008	CAS K	SA	< 0.5
6002.1	9/30/2008	CAS K	SA	< 0.5
6002.1	9/14/2009	CAS	SA	< 0.5
6002.1	9/8/2010	CAS	SA	< 0.5
6002.1	9/12/2012	CAS	SA	< 0.5
6002.1	9/24/2013	ALS	SA	< 0.5
6002.1	9/23/2014	ALS	SA	< 0.5
6002.1	8/1/2015	ALS	SA	< 0.5
6002.1	8/27/2016	ALS	SA	< 0.5
6003.1	6/28/1987	CAL	SA	< 0.5
6003.1	6/28/1987	CHA	SA	--
6003.1	6/28/1987	CHA	SS	--
6003.1	9/23/1987	CAL	SS	--
6003.1	9/23/1987	CHA	SS	--
6003.1	9/23/1987	CHA	SSFD	--
6003.1	12/6/1987	CAL	SA	< 0.2
6003.1	12/16/1991	OSL	SA	< 3
6003.1	1/29/1992	CAL	SA	< 0.5

SA = Sample , FD = Field Duplicate , SS - Split Sample
UKN - Unknown, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes

Table 3-3
Group 1U-PMWN-UA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
6003.1	5/11/1992	CAL	SA	< 0.5
6003.1	5/11/1992	OSL	SA	< 3
6003.1	5/11/1992	OSL	SS	< 3
6003.1	3/29/1993	CAL	SA	< 0.5
6003.1	3/8/1994	CAL	SA	< 0.5
6003.1	3/13/1995	QES	SA	**5.1**
6003.1	3/11/1996	QES	SA	**0.5**
6003.1	4/14/1997	QES	SA	< 0.5
6003.1	8/4/1998	QES	SA	< 0.5
6003.1	7/27/1999	QES	SA	< 0.5
6003.1	7/21/2000	STL	SA	< 0.5
6003.1	8/27/2001	STL	SA	< 0.5
6003.1	6/19/2002	CAS K	SA	< 0.5
6003.1	6/25/2003	CAS K	SA	< 0.5
6003.1	7/3/2004	CAS K	SA	< 0.5
6003.1	7/27/2005	CAS K	SA	< 0.5
6003.1	11/10/2006	CAS K	SA	< 0.5
6003.1	9/26/2007	CAS K	FD	< 0.5
6003.1	9/26/2007	CAS K	SA	< 0.5
6003.1	4/25/2008	CAS K	SA	< 0.99
6003.1	4/25/2008	CAS K	SA	< 0.5

SA = Sample , FD = Field Duplicate , SS - Split Sample
UKN - Unknown, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes

Table 3-3
Group 1U-PMWN-UA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
6003.1	9/30/2008	CAS K	FD	< 0.5
6003.1	9/30/2008	CAS K	SA	< 0.5
6003.1	9/14/2009	CAS	SA	< 0.5
6003.1	9/7/2010	CAS	SA	< 0.5
6003.1	9/12/2012	CAS	SA	< 0.5
6003.1	9/23/2014	CAS	SA	< 0.5
6003.1	7/26/2015	CAS	SA	< 0.5
6003.1	8/27/2016	CAS	SA	< 0.5
6503.1	11/16/1992	OSL	SA	< 3
6503.1	3/29/1993	CAL	SA	< 0.5
6503.1	3/3/1994	CAL	SA	< 0.5
6503.1	3/18/1996	QES	SA	< 0.5
6503.1	4/14/1997	QES	SA	< 0.5
6503.1	8/4/1998	QES	SA	< 0.5
6503.1	7/27/1999	QES	SA	< 0.5
6503.1	7/19/2000	STL	SA	< 0.5
6503.1	8/23/2001	OSL	SS	< 0.5
6503.1	8/23/2001	STL	SA	< 0.5
6503.1	6/20/2002	CAS K	SA	< 0.5
6503.1	6/19/2003	CAS K	SA	< 0.5
6503.1	7/3/2004	CAS K	SA	< 0.5

SA = Sample , FD = Field Duplicate , SS - Split Sample
UKN - Unknown, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes

Table 3-3
Group 1U-PMWN-UA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
6503.1	7/26/2005	CAS K	SA	**0.66**
6503.1	11/3/2006	CAS K	SA	< 0.5
6503.1	9/26/2007	CAS K	SA	< 0.5
6503.1	4/25/2008	CAS K	SA	< 1
6503.1	4/25/2008	CAS K	SA	< 0.5
6503.1	10/6/2008	CAS K	FD	< 0.5
6503.1	10/6/2008	CAS K	SA	< 0.5
6503.1	9/15/2009	CAS	SA	< 0.5
6503.1	9/7/2010	CAS	SA	< 0.5
6503.1	9/17/2012	CAS	SA	< 0.5
6503.1	9/17/2012	CAS	FD	< 0.5
6503.1	9/23/2013	ALS	SA	< 0.5
6503.1	9/23/2013	ALS	FD	< 0.5
6503.1	9/23/2014	ALS	SA	< 0.5
6503.1	9/23/2014	ALS	FD	< 0.5
6503.1	8/3/2015	ALS	SA	< 0.5
6503.1	8/3/2015	ALS	FD	< 0.5
6503.1	9/27/2016	ALS	SA	< 0.5

SA = Sample , FD = Field Duplicate , SS - Split Sample
UKN - Unknown, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes

Table 3-4
Group 2U-IMWN-UA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
3002.1	6/26/1987	CAL	SA	--
3002.1	12/2/1987	CAL	SS	--
3002.1	6/15/1992	CAL	SA	< 0.5
3002.1	3/29/1993	CAL	SA	< 0.5
3002.1	8/1/2005	CAS K	SA	< 0.5
3002.1	11/7/2006	OSL	SA	< 0.5
3002.1	9/19/2007	LOSL	SA	< 0.5
3002.1	9/19/2008	LOSL	SA	< 0.5
3002.1	9/14/2009	LOSL	SA	< 3.5
3002.1	9/3/2010	LOSL	SA	< 0.5
3002.1	9/10/2011	LOSL	SA	**0.82**
3002.1	9/10/2012	LOSL	SA	**0.5**
3002.1	9/9/2013	LOSL	SA	< 0.5
3002.1	9/5/2014	LOSL	SA	< 0.5
3002.1	7/30/2015	LOSL	SA	< 0.5
3002.1	9/5/2016	ALS	SA	< 0.5
3013.1	6/26/1987	CAL	SA	**2.9**
3013.1	6/26/1987	CAL	UNK	**3.2**
3013.1	6/26/1987	CHA	SA	**24**
3013.1	6/26/1987	CHA	SS	**24**
3013.1	9/22/1987	CAL	SS	**130**
3013.1	9/22/1987	CHA	FD	--
3013.1	9/22/1987	CHA	SA	**54**
3013.1	12/2/1987	CAL	SS	**530**
3013.1	12/2/1987	CHA	SA	**179**
3013.1	4/11/1988	CAL	FD	**2.6**
3013.1	4/11/1988	CAL	SA	**2.3**

SA = Sample, FD = Field Duplicate, UNK - Unknown SS - Split Sample, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes.

Table 3-4
Group 2U-IMWN-UA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol
				ug/L
3013.1	6/15/1992	CAL	SA	**110**
3013.1	3/30/1993	CAL	SA	**390**
3013.1	3/7/1994	CAL	SA	**1400**
3013.1	3/21/1994	OSL	SA	**897**
3013.1	3/13/1995	QES	SA	**13**
3013.1	3/19/1996	QES	SA	**0.69**
3013.1	4/15/1997	QES	SA	**0.51**
3013.1	7/30/1998	OSL	SA	**38.3**
3013.1	7/30/1998	QES	FD	**10**
3013.1	7/30/1998	QES	SA	**--**
3013.1	8/2/1999	QES	SA	**110**
3013.1	7/18/2000	STL	SA	**2000**
3013.1	9/5/2001	STL	SA	**4300**
3013.1	6/27/2002	CAS K	SA	**280**
3013.1	7/1/2003	CAS K	SA	**1100**
3013.1	7/6/2004	CAS K	SA	**1500**
3013.1	8/1/2005	CAS K	SA	**5100**
3013.1	11/11/2006	CAS K	SA	**4800**
3013.1	11/11/2006	OSL	SS	**6716.3**
3013.1	9/22/2007	CAS K	SA	**5300**
3013.1	9/22/2007	LOSL	SS	**5375**
3013.1	4/28/2008	CAS K	SA	**28**
3013.1	4/28/2008	CAS K	SA	**27**
3013.1	9/28/2008	LOSL	SS	**4752**
3013.1	10/6/2008	CAS K	SA	**6500**
3013.1	9/21/2009	CAS	SA	**4100**
3013.1	9/21/2009	LOSL	SS	**3310**

SA = Sample, FD = Field Duplicate, UNK - Unknown SS - Split Sample, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes.

Table 3-4
Group 2U-IMWN-UA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
3013.1	9/4/2010	LOSL	SA	**4550**
3013.1	9/17/2011	LOSL	SA	**1440**
3013.1	9/11/2012	LOSL	SA	**242**
3013.1	9/14/2013	LOSL	SA	**186**
3013.1	9/9/2014	LOSL	SA	**1330**
3013.1	8/1/2015	LOSL	SA	**12.4**
3013.1	9/21/2016	ALS	SA	**360**
3013.1	9/21/2016	ALS	FD	**350**
3018.1	6/26/1987	CAL	SA	**230**
3018.1	9/23/1987	CAL	SS	**--**
3018.1	9/23/1987	CHA	FD	**--**
3018.1	9/23/1987	CHA	SA	**--**
3018.1	12/2/1987	CAL	SS	**240**
3018.1	12/2/1987	CHA	SA	**423**
3018.1	4/12/1988	CAL	SS	**--**
3018.1	12/11/1991	CAL	SA	**680**
3018.1	12/11/1991	OSL	SA	**106**
3018.1	12/11/1991	OSL	SS	**106**
3018.1	12/11/1991	OSL	SSFD	**130**
3018.1	2/3/1992	CAL	SA	**600**
3018.1	2/3/1992	OSL	SA	**190**
3018.1	2/3/1992	OSL	SS	**190**
3018.1	2/3/1992	OSL	SSFD	**211**
3018.1	5/13/1992	OSL	SA	**203**
3018.1	8/18/1992	CAL	SA	**250**
3018.1	8/18/1992	OSL	SA	**184**
3018.1	8/18/1992	OSL	SS	**184**

SA = Sample, FD = Field Duplicate, UNK - Unknown SS - Split Sample, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes.

Table 3-4
Group 2U-IMWN-UA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
3018.1	8/18/1992	OSL	SSFD	**211**
3018.1	10/27/1992	OSL	SA	**154**
3018.1	3/29/1993	CAL	SA	**54**
3018.1	3/10/1994	CAL	SA	**12**
3018.1	3/17/1994	CAL	SA	**420**
3018.1	3/13/1995	OSL	SA	**53.6**
3018.1	3/13/1995	QES	SA	**33**
3018.1	4/14/1997	QES	SA	**20**
3018.1	8/2/1999	QES	SA	**29**
3018.1	7/22/2000	STL	SA	**9.7**
3018.1	9/1/2001	OSL	SS	**9.375**
3018.1	9/1/2001	STL	FD	< 0.5
3018.1	9/1/2001	STL	SA	< 6.9
3018.1	6/26/2002	CAS K	SA	**2**
3018.1	6/26/2002	CAS K	SA	**3.3**
3018.1	7/1/2003	CAS K	SA	**5.8**
3018.1	7/1/2003	OSL	SS	**0.85**
3018.1	7/6/2004	CAS K	SA	**2.4**
3018.1	8/1/2005	CAS K	SA	**3.2**
3018.1	11/10/2006	CAS K	SA	**2.2**
3018.1	11/10/2006	OSL	SS	**14.9**
3018.1	9/19/2007	LOSL	SA	**0.967**
3018.1	4/28/2008	CAS K	FD	**2**
3018.1	4/28/2008	CAS K	FD	**1.9**
3018.1	4/28/2008	CAS K	SA	**1.7**
3018.1	4/28/2008	CAS K	SA	**1.9**
3018.1	9/19/2008	LOSL	SA	**9.6**

SA = Sample, FD = Field Duplicate, UNK - Unknown SS - Split Sample, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes.

Table 3-4
Group 2U-IMWN-UA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol
				ug/L
3018.1	9/11/2009	LOSL	SA	**8.6**
3018.1	10/21/2009	CAS	FD	**0.91**
3018.1	10/21/2009	CAS	SA	**0.77**
3018.1	11/10/2009	CAS	FD	**0.78**
3018.1	11/10/2009	CAS	SA	**0.77**
3018.1	9/3/2010	LOSL	SA	**0.7**
3018.1	9/10/2011	LOSL	SA	<0.5
3018.1	9/10/2012	LOSL	SA	**0.52**
3018.1	9/10/2012	LOSL	FD	**0.49**
3018.1	9/9/2013	LOSL	SA	< 0.5
3018.1	9/9/2013	LOSL	FD	< 0.5
3018.1	9/5/2014	LOSL	SA	< 0.5
3018.1	9/5/2014	LOSL	FD	< 0.5
3018.1	7/31/2015	LOSL	SA	< 0.5 UJ
3018.1	7/31/2015	LOSL	FD	< 0.5
3018.1	8/28/2016	ALS	SA	**0.78**
3041.1	6/26/1992	OSL	SA	**58**
3041.1	3/17/1993	OSL	SA	< 3
3041.1	9/1/1993	OSL	SA	**29.6**
3041.1	3/8/1994	OSL	SA	< 3.4
3041.1	9/8/1994	OSL	SA	**43.9**
3041.1	3/3/1995	OSL	SA	< 3.4
3041.1	9/7/1995	OSL	SA	< 3.4
3041.1	9/7/1995	OSL	UNK	< 3.4
3041.1	3/14/1996	OSL	SA	< 3.5
3041.1	9/23/1996	OSL	SA	< 3.4
3041.1	4/8/1997	OSL	SA	< 3.4

SA = Sample, FD = Field Duplicate, UNK - Unknown SS - Split Sample, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes.

Table 3-4
Group 2U-IMWN-UA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
3041.1	9/29/1997	OSL	SA	< 3.4
3041.1	7/30/1998	OSL	SA	< 3
3041.1	7/26/1999	OSL	SA	< 3.4
3041.1	7/22/2000	OSL	SA	< 3.4
3041.1	8/28/2001	OSL	SS	**27.54**
3041.1	6/25/2002	OSL	SA	< 0.5
3041.1	6/27/2003	OSL	SS	**239.3**
3041.1	12/8/2003	CAS K	SA	**2.9**
3041.1	7/2/2004	LOSL	SA	**--**
3041.1	7/2/2004	LOSL	SA	**161.7**
3041.1	11/19/2004	CAS K	SA	**4.5**
3041.1	8/1/2005	CAS K	SA	**190**
3041.1	11/9/2006	CAS K	SS	< 0.5
3041.1	11/9/2006	OSL	FD	**30.4**
3041.1	11/9/2006	OSL	SA	**24.5**
3041.1	9/19/2007	LOSL	SA	< 0.5
3041.1	4/26/2008	CAS K	FD	**260**
3041.1	4/26/2008	CAS K	FD	**270**
3041.1	4/26/2008	CAS K	SA	**270**
3041.1	4/26/2008	CAS K	SA	**240**
3041.1	9/19/2008	LOSL	FD	< 0.5
3041.1	9/19/2008	LOSL	SA	< 0.5
3041.1	9/11/2009	LOSL	FD	< 3.5
3041.1	9/11/2009	LOSL	SA	< 3.5
3041.1	9/2/2010	LOSL	SA	**4.3**
3041.1	9/10/2011	LOSL	SA	**<0.5**
3041.1	9/10/2012	LOSL	SA	**0.53**

SA = Sample, FD = Field Duplicate, UNK - Unknown SS - Split Sample, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes.

Table 3-4
Group 2U-IMWN-UA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
3041.1	9/9/2013	LOSL	SA	< 0.5
3041.1	9/5/2014	LOSL	SA	< 0.5
3041.1	7/31/2015	LOSL	SA	< 0.5
3041.1	9/21/2016	ALS	SA	< 0.5
3041.2	6/26/1992	OSL	SA	**152**
3041.2	3/17/1993	OSL	SA	< 3
3041.2	9/1/1993	OSL	SA	< 2.9
3041.2	3/10/1994	OSL	SA	< 3.4
3041.2	9/8/1994	OSL	SA	**40.1**
3041.2	3/3/1995	OSL	SA	< 3.4
3041.2	3/14/1996	OSL	SA	< 3.5
3041.2	4/8/1997	OSL	SA	< 3.4
3041.2	9/29/1997	OSL	SA	< 3.68
3041.2	7/30/1998	OSL	SA	< 3
3041.2	7/26/1999	OSL	SA	**7**
3041.2	7/22/2000	OSL	SA	< 3.4
3041.2	8/28/2001	OSL	SS	< 0.5
3041.2	6/19/2002	OSL	SA	< 0.5
3041.2	6/27/2003	OSL	SS	**9.26**
3041.2	12/6/2003	CAS K	SA	**2.4**
3041.2	7/2/2004	LOSL	SA	**0.81**
3041.2	7/2/2004	LOSL	SA	< 3.5
3041.2	11/19/2004	CAS K	SA	**0.27**
3041.2	8/1/2005	CAS K	FD	< 0.5
3041.2	8/1/2005	CAS K	SA	< 0.5
3041.2	8/1/2005	OSL	SS	< 2.9
3041.2	11/8/2006	CAS K	SA	< 0.5

SA = Sample, FD = Field Duplicate, UNK - Unknown SS - Split Sample, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes.

Table 3-4
Group 2U-IMWN-UA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
3041.2	11/8/2006	OSL	SS	**42.4**
3041.2	9/19/2007	LOSL	SA	< 0.5
3041.2	4/26/2008	CAS K	SA	**6.6**
3041.2	4/26/2008	CAS K	SA	**5.4**
3041.2	9/19/2008	LOSL	SA	< 0.5
3041.2	9/11/2009	LOSL	SA	< 3.5
3041.2	9/2/2010	LOSL	SA	**0.76**
3041.2	9/10/2011	LOSL	SA	**1.04**
3041.2	9/10/2012	LOSL	SA	**3.1**
3041.2	9/9/2013	LOSL	SA	< 0.5
3041.2	9/5/2014	LOSL	SA	**10.4**
3041.2	7/31/2015	LOSL	SA	**1.29**
3041.2	9/21/2016	ALS	SA	**6**
3042.1	6/25/1992	CAL	SA	**370**
3042.1	6/25/1992	OSL	SA	**686**
3042.1	3/17/1993	OSL	SA	< 3
3042.1	9/1/1993	OSL	SA	< 2.9
3042.1	3/8/1994	OSL	SA	< 4
3042.1	9/8/1994	OSL	SA	**44.1**
3042.1	3/3/1995	OSL	SA	< 3.4
3042.1	9/7/1995	OSL	SA	< 3.4
3042.1	3/14/1996	OSL	SA	< 3.4
3042.1	9/23/1996	OSL	SA	< 3.4
3042.1	4/8/1997	OSL	SA	< 3.4
3042.1	9/29/1997	OSL	SA	< 3.4
3042.1	7/30/1998	OSL	SA	< 3
3042.1	7/26/1999	OSL	SA	**7.5**

SA = Sample, FD = Field Duplicate, UNK - Unknown SS - Split Sample, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes.

Table 3-4
Group 2U-IMWN-UA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
3042.1	7/22/2000	OSL	SA	**12.8**
3042.1	9/1/2001	OSL	SS	**228.9**
3042.1	6/26/2002	OSL	SA	**10.92**
3042.1	6/27/2003	OSL	SS	**5.87**
3042.1	9/22/2007	CAS K	SA	< 0.5
3042.1	9/22/2007	LOSL	SA	**1.336**
3042.1	4/29/2008	CAS K	SA	< 5
3042.1	4/29/2008	CAS K	SA	**0.21**
3042.1	9/19/2008	LOSL	SS	< 0.5
3042.1	9/23/2008	CAS K	SA	< 0.5
3042.1	9/21/2009	CAS	SA	< 0.5
3042.1	9/21/2009	LOSL	SS	< 3.5
3042.1	9/3/2010	LOSL	SA	**0.77**
3042.1	9/16/2011	LOSL	SA	<0.5
3042.1	9/11/2012	LOSL	SA	0.5
3042.1	9/11/2013	LOSL	SA	< 0.5
3042.1	9/6/2014	LOSL	SA	**11.7**
3042.1	8/1/2015	LOSL	SA	<0.5
3042.1	9/21/2016	ALS	SA	<0.5
3042.1	9/21/2016	ALS	FD	<0.5
3042.2	6/25/1992	OSL	SA	**261**
3042.2	3/17/1993	CAL	SA	**0.71**
3042.2	3/17/1993	OSL	SA	< 3
3042.2	3/17/1993	OSL	SS	< 3
3042.2	3/17/1993	OSL	SSFD	< 3
3042.2	9/1/1993	OSL	SA	< 2.9
3042.2	3/10/1994	OSL	SA	< 3.4

SA = Sample, FD = Field Duplicate, UNK - Unknown SS - Split Sample, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes.

Table 3-4
Group 2U-IMWN-UA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
3042.2	9/8/1994	OSL	SA	**18.9**
3042.2	3/3/1995	OSL	SA	< 3.4
3042.2	9/7/1995	OSL	SA	< 3.4
3042.2	3/14/1996	OSL	FD	< 3.4
3042.2	3/14/1996	OSL	SA	< 3.4
3042.2	9/23/1996	OSL	SA	< 3.4
3042.2	4/8/1997	OSL	SA	< 3.4
3042.2	9/29/1997	OSL	SA	< 3.68
3042.2	7/30/1998	OSL	SA	< 3
3042.2	7/26/1999	OSL	SA	< 3.4
3042.2	7/22/2000	OSL	FD	**19**
3042.2	7/22/2000	OSL	SA	**17.3**
3042.2	7/22/2000	STL	SA	**11**
3042.2	9/1/2001	OSL	SS	**10.15**
3042.2	6/25/2002	OSL	SA	< 0.5
3042.2	6/27/2003	OSL	SS	**4.05**
3042.2	12/6/2003	CAS K	SA	**0.2**
3042.2	7/7/2004	LOSL	SA	**1.51**
3042.2	7/7/2004	LOSL	SA	< 3.5
3042.2	11/20/2004	CAS K	SA	**0.26**
3042.2	8/1/2005	CAS K	SA	< 0.5
3042.2	11/11/2006	OSL	SA	**35.9**
3042.2	9/22/2007	CAS K	SA	< 0.5
3042.2	9/22/2007	LOSL	SS	**0.658**
3042.2	4/29/2008	CAS K	SA	< 0.98
3042.2	4/29/2008	CAS K	SA	< 0.5
3042.2	9/19/2008	LOSL	SS	< 0.5

SA = Sample, FD = Field Duplicate, UNK - Unknown SS - Split Sample, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes.

Table 3-4
Group 2U-IMWN-UA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
3042.2	9/23/2008	CAS K	SA	< 0.5
3042.2	9/21/2009	CAS	SA	< 0.5
3042.2	9/21/2009	LOSL	SS	< 3.5
3042.2	9/3/2010	LOSL	SA	< 0.5
3042.2	9/16/2011	LOSL	SA	< 0.5
3042.2	9/11/2012	LOSL	SA	**0.68**
3042.2	9/11/2013	LOSL	SA	< 0.5
3042.2	9/6/2014	LOSL	SA	**9.8**
3042.2	8/1/2015	LOSL	SA	<0.5
3042.2	9/21/2016	ALS	SA	<0.5
3043.1	6/25/1992	OSL	SA	< 3
3043.1	3/16/1993	OSL	SA	< 3
3043.1	9/1/1993	OSL	SA	< 2.9
3043.1	3/8/1994	OSL	SA	< 3.4
3043.1	9/8/1994	OSL	SA	< 3.4
3043.1	3/3/1995	OSL	SA	< 3.4
3043.1	9/7/1995	OSL	SA	< 3.4
3043.1	3/14/1996	OSL	SA	< 3.5
3043.1	9/23/1996	OSL	SA	< 3.4
3043.1	9/23/1996	QES	SA	< 0.5
3043.1	4/8/1997	OSL	SA	< 3.4
3043.1	9/29/1997	OSL	FD	< 3.4
3043.1	9/29/1997	OSL	SA	< 3.4
3043.1	7/30/1998	OSL	SA	< 3
3043.1	7/26/1999	OSL	SA	< 3.4
3043.1	7/22/2000	OSL	SA	< 3.4
3043.1	8/28/2001	OSL	SS	< 0.5

SA = Sample, FD = Field Duplicate, UNK - Unknown SS - Split Sample, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes.

Table 3-4
Group 2U-IMWN-UA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
3043.1	6/19/2002	OSL	SA	< 0.5
3043.1	6/27/2003	OSL	SS	< 0.5
3043.1	12/6/2003	CAS K	SA	< 0.5
3043.1	7/2/2004	LOSL	SA	**1.99**
3043.1	7/2/2004	LOSL	SA	< 3.5
3043.1	11/20/2004	CAS K	SA	< 0.5
3043.1	7/27/2005	CAS K	SA	< 0.5
3043.1	11/11/2006	OSL	SA	**1.9**
3043.1	9/22/2007	CAS K	SA	< 0.5
3043.1	9/22/2007	LOSL	SS	**28.2**
3043.1	4/26/2008	CAS K	SA	< 0.99
3043.1	4/26/2008	CAS K	SA	< 0.5
3043.1	9/19/2008	LOSL	SS	< 0.5
3043.1	9/23/2008	CAS K	SA	< 0.5
3043.1	9/11/2009	LOSL	SA	< 3.5
3043.1	10/23/2009	CAS	SA	< 0.5
3043.1	9/4/2010	LOSL	SA	< 0.5
3043.1	9/10/2011	LOSL	SA	< 0.5
3043.1	9/10/2012	LOSL	SA	**0.5**
3043.1	9/10/2013	LOSL	SA	< 0.5
3043.1	9/6/2014	LOSL	SA	< 0.5
3043.1	7/31/2015	LOSL	SA	< 0.5
3043.1	9/5/2016	ALS	SA	< 0.5
3043.2	6/25/1992	OSL	SA	**415**
3043.2	3/16/1993	OSL	SA	**19**
3043.2	9/1/1993	CAL	SA	< 0.5
3043.2	9/1/1993	OSL	SA	< 2.9

SA = Sample, FD = Field Duplicate, UNK - Unknown SS - Split Sample, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes.

Table 3-4
Group 2U-IMWN-UA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
3043.2	3/10/1994	OSL	SA	< 3.4
3043.2	9/8/1994	OSL	SA	< 3.4
3043.2	3/3/1995	OSL	SA	< 3.4
3043.2	9/7/1995	OSL	SA	**39.5**
3043.2	3/14/1996	OSL	FD	**11.7**
3043.2	3/14/1996	OSL	SA	**5.4**
3043.2	9/23/1996	OSL	FD	**13.33**
3043.2	9/23/1996	OSL	SA	**21.96**
3043.2	4/8/1997	OSL	SA	**12.6**
3043.2	9/29/1997	OSL	SA	< 3.68
3043.2	7/30/1998	OSL	FD	**12.4**
3043.2	7/30/1998	OSL	SA	**9.4**
3043.2	7/30/1998	QES	SA	**3.7**
3043.2	7/30/1999	OSL	SA	**24.3**
3043.2	7/22/2000	OSL	SA	**37**
3043.2	9/1/2001	OSL	SS	< 0.5
3043.2	6/25/2002	OSL	SA	**0.7**
3043.2	6/27/2003	OSL	SS	**0.89**
3043.2	12/6/2003	CAS K	SA	**60**
3043.2	7/2/2004	LOSL	SA	**69.5**
3043.2	11/20/2004	CAS K	FD	**49**
3043.2	11/20/2004	CAS K	SA	**46**
3043.2	7/27/2005	CAS K	SA	**10**
3043.2	11/11/2006	OSL	SA	**35.3**
3043.2	9/22/2007	CAS K	FD	< 0.5
3043.2	9/22/2007	CAS K	SA	< 0.5
3043.2	9/22/2007	LOSL	SS	**7.1**

SA = Sample, FD = Field Duplicate, UNK - Unknown SS - Split Sample, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes.

Table 3-4
Group 2U-IMWN-UA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
3043.2	4/26/2008	CAS K	FD	< 0.99
3043.2	4/26/2008	CAS K	FD	**2.5**
3043.2	4/26/2008	CAS K	FD	**0.49**
3043.2	4/26/2008	CAS K	SA	**0.79**
3043.2	4/26/2008	CAS K	SA	**0.42**
3043.2	9/19/2008	LOSL	SS	**0.63**
3043.2	9/23/2008	CAS K	SA	< 0.5
3043.2	9/11/2009	LOSL	SA	**3.5**
3043.2	10/23/2009	CAS	SA	**0.55**
3043.2	9/4/2010	CAS	SA	< 0.5
3043.2	9/4/2010	LOSL	SS	**3.5**
3043.2	9/4/2010	LOSL	SSFD	**6**
3043.2	9/10/2011	LOSL	FD	< 0.5
3043.2	9/10/2011	LOSL	SA	<0.5
3043.2	9/10/2012	LOSL	SA	**0.5**
3043.2	9/10/2013	LOSL	SA	< 0.5
3043.2	9/6/2014	LOSL	SA	< 0.5
3043.2	7/31/2015	LOSL	SA	**0.9**
3043.2	9/5/2016	ALS	SA	<0.5
8006.1	7/1/1992	OSL	SA	< 3
8006.1	3/15/1993	OSL	FD	< 3
8006.1	3/15/1993	OSL	SA	< 3
8006.1	3/8/1994	OSL	SA	< 3.4
8006.1	3/3/1995	OSL	SA	< 3.4
8006.1	3/14/1996	OSL	SA	< 3.5
8006.1	4/14/1997	OSL	FD	**14.5**
8006.1	4/14/1997	OSL	SA	**7.7**

SA = Sample, FD = Field Duplicate, UNK - Unknown SS - Split Sample, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes.

Table 3-4
Group 2U-IMWN-UA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol ug/L
8006.1	4/14/1997	QES	SA	**0.5**
8006.1	7/31/1998	OSL	FD	**16.5**
8006.1	7/31/1998	OSL	SA	**9.6**
8006.1	7/31/1998	QES	SA	< 0.5
8006.1	7/30/1999	OSL	FD	**11**
8006.1	7/30/1999	OSL	SA	**10.8**
8006.1	7/30/1999	QES	SA	**--**
8006.1	7/22/2000	OSL	SA	**10.1**
8006.1	9/1/2001	OSL	SS	< 0.5
8006.1	9/1/2001	OSL	SSFD	< 0.5
8006.1	9/1/2001	STL	SA	< 0.5
8006.1	6/25/2002	CAS K	SA	< 0.5
8006.1	6/25/2002	CAS K	SA	< 0.53
8006.1	6/25/2002	OSL	FD	< 0.5
8006.1	6/25/2002	OSL	SA	< 0.5
8006.1	6/27/2003	CAS K	SA	< 0.5
8006.1	6/27/2003	OSL	FD	< 0.5
8006.1	6/27/2003	OSL	SS	< 0.5
8006.1	12/9/2003	CAS K	SA	< 0.5
8006.1	7/2/2004	LOSL	SA	< 0.5
8006.1	7/2/2004	LOSL	SA	< 3.5
8006.1	11/19/2004	CAS K	SA	**0.28**
8006.1	7/27/2005	CAS K	SA	< 0.5
8006.1	11/7/2006	OSL	SA	< 0.5
8006.1	9/19/2007	LOSL	SA	< 0.5
8006.1	4/20/2008	CAS K	SA	< 1
8006.1	4/20/2008	CAS K	SA	< 0.5

SA = Sample, FD = Field Duplicate, UNK - Unknown SS - Split Sample, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes.

Table 3-4
Group 2U-IMWN-UA
PCP Results (ppb)

Well Number	Collection Date	Lab Name	QA/QC Type	Pentachlorophenol
				ug/L
8006.1	9/18/2008	LOSL	SA	< 0.5
8006.1	9/11/2009	LOSL	SA	< 3.5
8006.1	9/2/2010	LOSL	SA	< 0.5
8006.1	9/10/2011	LOSL	SA	< 0.5
8006.1	9/11/2012	LOSL	SA	**1.39**
8006.1	9/11/2012	LOSL	FD	**1.02**
8006.1	9/10/2013	LOSL	SA	< 0.5
8006.1	9/10/2013	LOSL	FD	< 0.5
8006.1	9/6/2014	LOSL	SA	< 0.5
8006.1	7/31/2015	LOSL	SA	< 0.5
8006.1	9/5/2016	ALS	SA	< 0.5

SA = Sample, FD = Field Duplicate, UNK - Unknown SS - Split Sample, J = Estimated Value, -- = Not analyzed
1, 2 Analytes coeluted in OSL analysis, reported as sum of both analytes.

Table 3-5
ANALYTICAL RESULTS OF GROUNDWATER SAMPLES COLLECTED IN 2016

Location ID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/l)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Arsenic-Total (ug/L)
MDEQ Values, October 2012						**1**	**100**	**670**	**2100**	**130**	**1100**	**830**	**0.5**	**0.05**	**0.5**	**5**	**50**	**0.05**	**0.5**	**10**
3002.1	9/5/2016	ALS	SA	**UA**	**US**	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5
3002.2	6/1/2016	ALS	SA	**UA**	**UM**	**110**	**0.02**	< 0.02	**0.013**	< 0.02	**0.099**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.3**
3002.2	6/1/2016	LOSL	SA	**UA**	**UM**	**11.5**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA
3003.1	5/31/2016	ALS	SA	**UA**	**US**	< 0.5	**0.88**	**14**	**0.88**	**0.53**	**6.9**	**0.38**	**0.0062**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**40.2**
3003.1	5/31/2016	LOSL	SA	**UA**	**US**	**8.9**	**9.1**	**17**	< 3.5	< 3.5	**10.5**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA
3003.2	7/9/2016	ALS	SA	**UA**	**US**	**140**	**0.29**	**3**	**0.44**	**0.23**	**1**	**0.18**	**0.011**	< 0.02	< 0.02	< 0.02	**0.0061**	< 0.02	< 0.02	**1.48**
3005.1	7/9/2016	ALS	SA	**UA**	**US**	**0.095**	**0.43**	**0.0084**	**0.02**	< 0.02	**0.0054**	< 0.02	**0.0032**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.5**
3005.2	5/31/2016	LOSL	SA	**UA**	**US**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA
3005.2	6/1/2016	ALS	SA	**UA**	**US**	< 0.5	< 0.02	< 0.02	**0.011**	< 0.02	< 0.02	< 0.02	**0.0033**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.5**
3005.2	6/1/2016	ALS	FD	**UA**	**US**	< 0.5	< 0.02	< 0.02	**0.01**	< 0.02	< 0.02	< 0.02	**0.003**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.5**
3005.2	6/1/2016	LOSL	FD	**UA**	**US**	< 3.5	**5**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA
3005.3	6/1/2016	ALS	SA	**UA**	**UM**	< 0.5	**0.006**	< 0.02	**0.011**	< 0.02	< 0.02	< 0.02	**0.003**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**1**
3005.3	6/1/2016	LOSL	SA	**UA**	**UM**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA
3006.1	6/10/2016	ALS	SA	**UA**	**US**	**9.7**	**4500**	**170**	**18**	**20**	**90**	**16**	**3.1**	**0.98**	**1.4**	**0.52**	**3.3**	**0.097**	**0.31**	**25.1**
3006.1	6/10/2016	LOSL	SA	**UA**	**US**	**27.9**	**3700**	**158**	**26.1**	**23.7**	**94.1**	**23.2**	**4**	< 3.5	< 3.5	< 3.5	**3.7**	< 3.5	< 3.5	NA
3006.2	7/9/2016	ALS	SA	**UA**	**US**	**0.78**	**22000**	**220**	**9.8**	**5.3**	**92**	**3.5**	**0.28**	**0.054**	**0.075**	**0.031**	**0.28**	**0.005**	**0.018**	**18.1**
3006.3	7/9/2016	ALS	SA	**UA**	**US**	**1.7**	**29000**	**210**	**18**	**10**	**87**	**6.1**	**1**	**0.33**	**0.43**	< 0.98	**1.1**	< 0.98	< 0.98	**20**
3007.1	5/31/2016	ALS	SA	**UA**	**US**	**0.76**	**730**	**82**	**3.2**	**1.6**	**33**	**0.98**	**0.029**	< 0.02	**0.0054**	< 0.02	**0.032**	< 0.02	**0.0054**	**31.6**
3007.1	5/31/2016	LOSL	SA	**UA**	**US**	**34.8**	**705**	**73.5**	**6.8**	**4.6**	**32.8**	**5.4**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA
3007.2	7/9/2016	ALS	SA	**UA**	**UM**	**140**	**3600**	**210**	**8.1**	**4.1**	**99**	**2.4**	**0.075**	**0.015**	**0.019**	**0.0044**	**0.071**	< 0.02	**0.0043**	**22.3**
3007.2	7/9/2016	ALS	FD	**UA**	**UM**	**140**	**3600**	**210**	**7.9**	**4.2**	**99**	**2.4**	**0.074**	**0.013**	**0.017**	**0.0046**	**0.067**	< 0.02	**0.0044**	**23.1**
3007.3	5/31/2016	ALS	SA	**UA**	**UM**	**570**	**2400**	**200**	**7.9**	**4.1**	**90**	**2.2**	**0.055**	< 0.02	**0.0099**	< 0.02	**0.048**	< 0.02	**0.0028**	**23**
3007.3	5/31/2016	LOSL	SA	**UA**	**UM**	**198**	**1820**	**118**	**10.3**	**5.5**	**55.7**	**5.5**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA
3008.1	6/8/2016	ALS	SA	**UA**	**US**	**3.9**	**1200**	**87**	**3**	**1.7**	**36**	**1.1**	**0.23**	< 0.99	< 0.99	< 0.99	< 0.99	< 0.99	< 0.99	**27.7**
3008.1	6/8/2016	LOSL	SA	**UA**	**US**	**31.7**	**1420**	**124**	**10.6**	**5**	**51.8**	**8.6**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA
3008.2	6/8/2016	ALS	SA	**UA**	**UD**	**870**	**12000**	**2500**	**1200**	**2100**	**2100**	**1800**	**430**	**150**	**220**	**83**	**480**	**12**	**41**	**15.2**
3008.2	6/8/2016	LOSL	SA	**UA**	**UD**	**2540**	**13000**	**3210**	**1750**	**3600**	**2580**	**3000**	**620**	**430**	**540**	< 350	**560**	< 350	< 350	NA
3008.2	6/8/2016	ALS	FD	**UA**	**UD**	**770**	**12000**	**2500**	**1200**	**2200**	**2200**	**1800**	**440**	**160**	**240**	**91**	**520**	**13**	**44**	**13.6**
3008.2	6/8/2016	LOSL	FD	**UA**	**UD**	**2290**	**11270**	**2950**	**1450**	**2940**	**2330**	**2530**	**440**	< 350	**380**	< 350	**410**	< 350	< 350	NA
3009.1	7/8/2016	ALS	SA	**UA/IZ**	**UD**	**0.3**	**0.074**	**0.0049**	**0.016**	< 0.02	**0.004**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.45**
3010.1	6/1/2016	ALS	SA	**UA**	**US**	< 0.5	**23**	**7.2**	**0.2**	**0.04**	**1.5**	**0.062**	**0.0033**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**2.7**
3010.1	6/1/2016	LOSL	SA	**UA**	**US**	< 3.5	**21.6**	**7.7**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA
3010.1	6/1/2016	ALS	FD	**UA**	**US**	< 0.5	**24**	**7.7**	**0.21**	**0.04**	**1.7**	**0.074**	**0.0029**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**2.7**
3010.1	6/1/2016	LOSL	FD	**UA**	**US**	< 3.5	**16.9**	**6.5**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA
3010.2	6/1/2016	ALS	SA	**UA**	**UD**	< 0.5	**75**	**23**	**0.61**	**0.15**	**10**	**0.073**	**0.0033**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**1.9**
3010.2	6/1/2016	LOSL	SA	**UA**	**UD**	< 3.5	**28.4**	**9.3**	< 3.5	< 3.5	**4**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA
3011.1	9/3/2016	ALS	SA	**UA**	**US**	< 0.5	< 0.02	< 0.02	< 0.027	**0.019**	< 0.02	**0.033**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.42**
3011.2	7/9/2016	ALS	SA	**UA**	**UM**	< 0.5	**0.22**	**0.21**	**0.11**	**0.097**	**0.19**	**0.22**	**0.0043**	< 0.021	< 0.021	< 0.021	**0.0046**	< 0.021	< 0.021	**41.8**
3011.3	7/9/2016	ALS	SA	**UA**	**UM**	**0.072**	**0.72**	**0.13**	**0.12**	**0.095**	**0.16**	**0.21**	**0.0086**	< 0.02	**0.0044**	< 0.02	**0.0096**	< 0.02	< 0.02	**12.9**

Table 3-5
ANALYTICAL RESULTS OF GROUNDWATER SAMPLES COLLECTED IN 2016

Location ID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/l)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Arsenic-Total (ug/L)
3012.1	9/24/2016	ALS	SA	UA/IZ	UD	0.31	80	110	8	12	62	6	1	0.35	0.51	0.2	0.99	0.033	0.13	11.6
3013.1	9/21/2016	ALS	SA	UA	US	360	47	3	0.69	0.076	1	0.053	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.97
3013.1	9/21/2016	ALS	FD	UA	US	350	49	2.9	0.68	0.065	0.99	0.054	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.0033	0.0055	0.95
3013.2	5/31/2016	ALS	SA	UA	UD	20	0.0064	0.0065	0.22	< 0.02	0.042	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.6
3013.2	5/31/2016	LOSL	SA	UA	UD	4.3	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA
3014.1	5/31/2016	ALS	SA	UA	US	< 0.5	< 0.02	< 0.02	0.18	< 0.02	< 0.02	< 0.02	0.0033	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.4
3014.1	5/31/2016	LOSL	SA	UA	US	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA
3014.2	5/31/2016	ALS	SA	UA	UD	< 0.5	0.0045	0.0045	0.17	< 0.02	0.0055	< 0.02	0.0037	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.5
3014.2	5/31/2016	LOSL	SA	UA	UD	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA
3015.1	9/3/2016	ALS	SA	UA	UD	< 0.5	180	63	4.4	2.9	36	1.5	0.071	0.011	0.015	0.0058	0.081	< 0.02	0.0059	9.44
3016.1	9/20/2016	ALS	SA	UA	UD	< 0.5	910	120	8.4	5.9	70	3.4	0.12	0.014	0.018	0.0075	0.12	< 0.02	0.0079	5.55
3017.1	9/24/2016	ALS	SA	UA	US	0.68	620	76	2.4	1.5	32	0.85	0.031	0.0068	0.0056	< 0.021	0.037	< 0.021	< 0.021	22.8
3017.2	9/24/2016	ALS	SA	UA	UM	0.27	610	77	2.2	1.5	32	0.85	0.027	0.0062	0.007	< 0.019	0.019	< 0.019	< 0.019	23.3
3017.3	9/24/2016	ALS	SA	UA	UD	430	2.2	< 0.23	0.084	0.1	0.65	0.064	0.014	0.0075	0.0075	< 0.02	0.01	< 0.02	< 0.02	0.86
3017.3	9/24/2016	ALS	FD	UA	UD	400	2	< 0.25	0.092	0.095	0.65	0.059	0.013	0.0074	0.012	0.0036	0.0099	< 0.02	0.0043	0.75
3018.1	8/28/2016	ALS	SA	UA	UM	0.78	3.1	1.6	< 0.02	0.036	1.2	0.014	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5
3018.2	8/28/2016	ALS	SA	LA	LD	2.5	< 0.79	43	0.6	2	1.6	0.85	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	2.53
3018.2	8/28/2016	ALS	FD	LA	LD	2.5	< 0.84	47	0.63	2.2	1.6	0.88	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	2.5
3018.2	8/28/2016	LOSL	SA	LA	LD	3.5	< 3.5	< 44.1	< 4.7	< 4.3	< 4.1	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA
3018.2	8/28/2016	LOSL	FD	LA	LD	3.5	< 3.5	< 38.3	< 3.5	< 3.9	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA
3021.1	9/3/2016	ALS	SA	UA	US	< 0.5	< 0.02	< 0.02	< 0.036	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.37
3025.1	6/10/2016	ALS	SA	UA	US	16	150	50	4.6	4.9	30	3.7	0.6	0.19	0.3	0.11	0.69	0.017	0.071	5.27
3025.1	6/10/2016	LOSL	SA	UA	US	44.6	104	92.9	14.8	20.8	55.7	17.2	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA
3026.1	6/8/2016	ALS	SA	UA	US	48	2800	160	9.5	6.7	78	4.1	0.63	0.23	0.31	< 0.97	0.46	< 0.97	0.14	42.2
3026.1	6/8/2016	LOSL	SA	UA	US	81.2	2805	136	13.7	7.6	65.1	5.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA
3029.1	9/27/2016	ALS	SA	UA	UD	1500	34000	5100	1600	2700	2700	1900	320	130	180	72	370	13	50	5.18
3030.1	6/8/2016	ALS	SA	UA	US	54	13000	320	66	100	180	77	17	5.9	8.7	3.7	18	0.55	1.9	18.6
3030.1	6/8/2016	LOSL	SA	UA	US	133	7700	381	98.5	149	216	128	19.5	< 17.5	< 17.5	< 17.5	19.5	< 17.5	< 17.5	NA
3030.2	6/8/2016	ALS	SA	UA	UD	280	8800	150	10	6.7	65	4.1	0.63	0.14	0.23	0.075	0.48	0.015	0.048	17
3030.2	6/8/2016	LOSL	SA	UA	UD	148	5870	161	32.9	28.4	75.1	23.4	3.6	< 3.5	< 3.5	< 3.5	4	< 3.5	< 3.5	NA
3031.1	6/10/2016	ALS	SA	UA	US	18	460	120	4.9	3.2	52	2.3	0.19	0.032	0.055	0.021	0.2	0.0028	0.009	24.1
3031.1	6/10/2016	LOSL	SA	UA	US	51	455	142	17.4	21.1	77.9	16.9	< 4.2	< 4.2	< 4.2	< 4.2	< 4.2	< 4.2	< 4.2	NA
3031.2	9/24/2016	ALS	SA	UA	UM	390	2600	160	11	11	77	8.4	1.4	0.48	0.73	0.3	1.6	0.055	0.16	25.2
3032.1	9/21/2016	ALS	SA	UA	US	0.61	98	61	3	3.9	28	2.4	0.26	0.14	0.18	0.079	0.35	0.021	0.092	16.7
3037.1	7/9/2016	ALS	SA	UA	US	1.1	0.15	0.019	0.72	0.11	0.067	0.17	0.04	0.067	0.097	0.022	0.05	0.014	0.099	5.73
3038.1	5/31/2016	ALS	SA	UA	US	< 0.5	< 0.02	0.0044	0.012	< 0.02	< 0.02	< 0.02	0.0027	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	14
3038.1	5/31/2016	LOSL	SA	UA	US	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA

Table 3-5
ANALYTICAL RESULTS OF GROUNDWATER SAMPLES COLLECTED IN 2016

Location ID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/l)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Arsenic-Total (ug/L)
3038.2	5/31/2016	ALS	SA	**UA**	**UD**	< 0.5	**3.5**	**0.32**	**0.098**	**0.13**	**1.5**	**0.068**	**0.0032**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**2**
3038.2	5/31/2016	LOSL	SA	**UA**	**UD**	< 3.5	**3.5**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA
3039.1	6/10/2016	ALS	SA	**UA**	**US**	**110**	**2800**	**300**	**67**	**140**	**180**	**120**	**30**	**10**	**16**	**6.2**	**33**	**0.9**	**3.2**	**41.8**
3039.1	6/10/2016	LOSL	SA	**UA**	**US**	**221**	**2140**	**219**	**73**	**105**	**140**	**92**	< 35	< 35	< 35	< 35	< 35	< 35	< 35	NA
3039.2	9/24/2016	ALS	SA	**UA**	**UD**	**2.9**	**2800**	**1800**	**600**	**1700**	**940**	**780**	**210**	**93**	**130**	**57**	**210**	**10**	**40**	**7.95**
3040.1	9/3/2016	ALS	SA	**UA**	**US**	< 0.5	< 0.02	< 0.02	< 0.079	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.46**
3041.1	9/21/2016	ALS	SA	**UA**	**US**	< 0.5	**75**	**42**	**2.4**	**1.2**	**16**	**0.61**	**0.013**	< 0.02	< 0.02	< 0.02	**0.0065**	< 0.02	< 0.02	**16.1**
3041.2	9/21/2016	ALS	SA	**UA**	**UM**	**6**	**25**	**31**	**1.5**	**0.66**	**13**	**0.32**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**23.2**
3042.1	9/21/2016	ALS	SA	**UA**	**US**	< 0.5	**2.3**	**12**	**0.72**	**0.79**	**5**	**0.39**	**0.015**	< 0.02	< 0.02	< 0.02	**0.005**	< 0.02	< 0.02	**7.79**
3042.1	9/21/2016	ALS	FD	**UA**	**US**	< 0.5	**2.4**	**12**	**0.82**	**0.82**	**6**	**0.41**	**0.0088**	< 0.02	< 0.02	< 0.02	**0.0053**	< 0.02	< 0.02	**7.62**
3042.2	9/21/2016	ALS	SA	**UA**	**UM**	< 0.5	**2.6**	**17**	**1.1**	**0.87**	**6**	**0.4**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**11.5**
3043.1	9/5/2016	ALS	SA	**UA**	**US**	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5
3043.2	9/5/2016	ALS	SA	**UA**	**UM**	< 0.5	< 0.047	< 0.34	< 0.02	< 0.02	< 0.18	**0.0054**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5
3044.1	8/26/2016	ALS	SA	**UA**	**UM**	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.42**
3044.2	8/26/2016	ALS	SA	**IZ/LA**	**LS**	**0.09**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.38**
3044.3	8/26/2016	ALS	SA	**LA**	**LD**	**0.12**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.28**
3047.1	8/26/2016	ALS	SA	**UA**	**US**	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5
3047.2	8/26/2016	ALS	SA	**LA**	**LS**	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.69**
3047.3	8/26/2016	ALS	SA	**LA**	**LD**	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.49**
3048.1	9/5/2016	ALS	SA	**UA**	**UM**	**0.077**	< 0.02	< 0.02	< 0.022	< 0.02	< 0.054	**0.028**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.69**
3048.2	9/5/2016	ALS	SA	**UA**	**UD**	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.51**
3049.1	9/20/2016	ALS	SA	**UA**	**US**	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.017**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**3.21**
3049.2	9/20/2016	ALS	SA	**UA**	**UM**	**0.15**	< 0.02	< 0.031	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**20.5**
3049.3	9/20/2016	ALS	SA	**UA**	**UD**	< 0.5	< 0.02	< 0.051	< 0.02	< 0.02	< 0.02	< 0.02	**0.0033**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**20.3**
3049.3	9/20/2016	ALS	FD	**UA**	**UD**	< 0.5	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	**0.0028**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**21**
3050.1	9/20/2016	ALS	SA	**UA**	**US**	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.43**
3050.2	9/20/2016	ALS	SA	**UA**	**US**	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.48**
3050.3	9/20/2016	ALS	SA	**UA/IZ**	**UD**	**0.11**	< 0.14	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.21**
3051.1	8/28/2016	ALS	SA	**UA**	**UD**	< 0.5	**5.1**	**63**	**0.95**	**4**	**7.9**	**1.9**	< 0.02	< 0.02	< 0.02	< 0.02	**0.0044**	< 0.02	< 0.02	**1.36**
3061.1	9/28/2016	ALS	SA	**UA**	**US**	**0.68**	**350**	**90**	**6.5**	**8.9**	**48**	**6.6**	**1.2**	**0.37**	**0.54**	**0.26**	**1.4**	**0.04**	**0.14**	**18.7**
3061.2	10/18/2016	ALS	SA	**UA**	**UD**	**780**	**8200**	**250**	**33**	**57**	**110**	**36**	**8.6**	**3.9**	**6**	**2.2**	**9.4**	**0.42**	**1.4**	**0.61**
3061.3	9/28/2016	ALS	SA	**UA**	**UD**	**1300**	**3600**	**150**	**17**	**6.7**	**96**	**4.1**	**0.34**	**0.082**	**0.11**	**0.045**	**0.39**	**0.007**	**0.023**	**6.18**
3062.1	9/27/2016	ALS	SA	**UA**	**US**	**3**	**980**	**100**	**3**	**1.5**	**46**	**0.89**	**0.053**	**0.012**	**0.018**	**0.0081**	**0.051**	< 0.02	**0.005**	**44.8**
3062.2	9/28/2016	ALS	SA	**UA**	**UM**	< 0.5	< 0.028	< 0.15	< 0.02	**0.039**	< 0.023	**0.099**	**0.0055**	< 0.02	< 0.02	< 0.02	**0.0046**	< 0.02	< 0.02	**0.54**
3062.3	9/27/2016	ALS	SA	**UA**	**UD**	**1.5**	**18**	**34**	**3.2**	**2.1**	**32**	**0.86**	**0.027**	**0.0047**	**0.015**	**0.0052**	**0.047**	< 0.02	**0.0028**	**5.07**
3063.1	9/27/2016	ALS	SA	**UA**	**US**	< 0.5	< 0.97	**4**	< 0.02	**0.41**	**0.57**	**0.63**	**0.01**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**6.82**
3063.2	9/27/2016	ALS	SA	**UA**	**UM**	< 0.5	< 0.069	< 0.021	< 0.021	< 0.021	< 0.021	**0.0062**	**0.0052**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	**0.12**

Table 3-5
ANALYTICAL RESULTS OF GROUNDWATER SAMPLES COLLECTED IN 2016

Location ID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/l)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Arsenic-Total (ug/L)
3063.3	9/27/2016	ALS	SA	UA	UD	16	< 0.26	< 0.047	0.068	0.032	< 0.63	0.012	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.86
5512.1	9/23/2016	ALS	SA	UA	US	3600	1800	80	3.3	2.2	31	1.5	0.23	< 0.99	< 0.99	< 0.99	< 0.99	< 0.99	< 0.99	14.9
5512.1	9/23/2016	ALS	FD	UA	US	3300	2200	80	3.8	3	31	2.1	0.33	< 0.99	< 0.99	< 0.99	< 0.99	< 0.99	< 0.99	14.8
5512.2	9/23/2016	ALS	SA	UA	UM	8400	11000	180	9.3	6.3	54	4.4	0.5	< 0.95	< 0.95	< 0.95	0.44	< 0.95	< 0.95	1.04
5512.3	9/23/2016	ALS	SA	UA	UD	7400	15000	410	120	190	220	140	33	11	16	8.2	41	0.8	4.2	1.07
5513.1	9/24/2016	ALS	SA	UA	US	2900	3100	85	3.4	3.3	29	2.3	0.48	< 0.99	0.23	< 0.99	0.35	< 0.99	< 0.99	6.62
5513.2	9/24/2016	ALS	SA	UA	UM	9600	3800	130	17	36	53	26	5.1	1.6	2.5	1.2	5.3	0.16	0.55	6.8
5513.2	9/24/2016	ALS	FD	UA	UM	9700	3800	140	17	35	55	25	4.4	1.4	2.2	1	5	< 0.99	0.61	7.18
5513.3	9/24/2016	ALS	SA	UA	UD	9900	2100	2200	720	1400	1400	990	210	62	100	44	230	4.7	21	3.33
6001.1	9/23/2016	ALS	SA	UA	UM	0.18	< 0.18	6.7	0.075	0.36	< 0.12	0.18	0.0063	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	4.23
6001.2	9/23/2016	ALS	SA	IZ/LA	LS	0.099	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.0053	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	1.76
6002.1	8/27/2016	ALS	SA	UA	US	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.01	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	1.55
6002.2	8/27/2016	ALS	SA	LA	LS	10	1.9	22	0.58	1.8	5.6	0.72	< 0.02	< 0.02	< 0.02	< 0.02	0.0048	< 0.02	< 0.02	0.71
6002.2	8/28/2016	LOSL	SA	LA	LS	17.5	< 3.5	< 35.5	< 3.5	< 3.5	8	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA
6002.3	8/27/2016	ALS	SA	LA	LD	220	13000	2900	1100	2200	2000	1700	420	140	200	93	460	15	45	3.82
6002.3	8/27/2016	LOSL	SA	LA	LD	539	< 6920	< 1090	< 483	< 818	727	< 802	< 168	< 35	< 63	< 35	< 149	< 35	< 35	NA
6003.1	8/27/2016	ALS	SA	UA	US	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.2
6003.2	8/27/2016	ALS	SA	LA	LS	39	< 0.2	< 0.085	0.11	0.031	0.69	0.0073	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.5
6003.2	8/27/2016	LOSL	SA	LA	LS	21.6	< 3.5	< 3.7	< 3.5	< 3.5	3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA
6003.3	8/27/2016	ALS	SA	LA	LD	170	< 0.28	< 0.02	< 0.081	0.012	0.42	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.65
6003.3	8/27/2016	ALS	FD	LA	LD	180	< 0.28	< 0.031	0.075	0.012	0.44	< 0.02	0.0028	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.67
6003.3	8/27/2016	LOSL	SA	LA	LD	62.9	< 3.5	< 3.5	< 3.5	< 3.5	3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA
6007.1	8/28/2016	ALS	SA	LA/TILL	LD	390	2.5	1.8	< 0.16	0.025	2.1	0.012	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	1.47
6007.1	8/28/2016	LOSL	SA	LA/TILL	LD	204	< 4.2	< 4.5	< 3.5	< 3.5	7.3	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA
6010.1	9/20/2016	ALS	SA	UA	US	0.93	< 0.073	< 0.041	0.076	< 0.02	< 0.044	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5
6010.2	9/20/2016	ALS	SA	UA	UM	0.59	39	18	0.42	0.13	5.8	0.063	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	3.79
6010.3	9/20/2016	ALS	SA	UA	UD	0.076	< 0.071	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.4
6011.1	9/14/2016	ALS	SA	UA	US	< 0.5	< 0.39	3.6	0.11	0.051	< 0.26	0.03	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	6.37
6011.1	9/14/2016	ALS	FD	UA	US	< 0.5	< 0.39	3.6	0.12	0.045	< 0.26	0.03	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	6.41
6011.2	9/14/2016	ALS	SA	UA	UM	< 0.5	< 1.2	6.6	0.33	0.39	< 0.23	0.24	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	3.46
6011.3	9/14/2016	ALS	SA	UA	UD	< 0.5	73	32	0.92	1.3	22	0.64	< 0.02	< 0.02	< 0.02	< 0.02	0.0052	< 0.02	< 0.02	6.18
6012.1	9/13/2016	ALS	SA	UA	US	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.014	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5
6012.2	9/13/2016	ALS	SA	UA	UM	< 0.5	< 0.02	< 0.045	< 0.02	< 0.02	< 0.02	0.0095	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	27.4
6012.3	9/13/2016	ALS	SA	UA	UD	< 0.5	< 0.023	< 0.019	< 0.024	< 0.019	< 0.019	0.0084	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	0.65
6012.3	9/13/2016	ALS	FD	UA	UD	< 0.5	< 0.039	< 0.02	< 0.024	< 0.02	< 0.02	0.009	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.68
6013.1	9/5/2016	ALS	SA	UA	US	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.0052	< 0.02	< 0.02	< 0.02	0.0031	0.0036	0.31
6013.2	9/5/2016	ALS	SA	UA	UM	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5

Table 3-5
ANALYTICAL RESULTS OF GROUNDWATER SAMPLES COLLECTED IN 2016

Location ID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/l)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Arsenic-Total (ug/L)
6013.3	9/5/2016	ALS	SA	**UA**	**UD**	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.79**
6014.1	8/27/2016	ALS	SA	**UA**	**US**	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5
6014.2	8/27/2016	ALS	SA	**UA**	**UM**	**0.85**	< 0.024	< 0.02	< 0.021	< 0.02	< 0.024	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.25**
6014.3	8/27/2016	ALS	SA	**UA**	**UD**	**1.5**	< 0.11	< 0.02	**0.14**	**0.7**	< 0.22	**0.2**	**0.0028**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.5**
6015.1	8/27/2016	ALS	SA	**UA**	**US**	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5
6015.2	8/27/2016	ALS	SA	**UA**	**UM**	**0.41**	< 0.13	< 0.02	**0.079**	**0.39**	**0.68**	**0.082**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**1.06**
6015.3	8/27/2016	ALS	SA	**UA**	**UD**	**0.14**	< 0.23	< 0.053	**0.099**	**0.87**	**2.3**	**0.19**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**3.03**
6016.1	9/13/2016	ALS	SA	**UA**	**US**	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.22**
6016.2	9/13/2016	ALS	SA	**UA**	**UM**	< 0.5	< 0.21	**0.9**	**0.4**	**2.1**	**0.55**	**1.1**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	**1.79**
6016.2	9/13/2016	ALS	FD	**UA**	**UM**	< 0.5	< 1.1	**0.94**	**0.43**	**2.2**	**0.56**	**1.1**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**1.73**
6016.3	9/13/2016	ALS	SA	**UA**	**UD**	**0.9**	**1.6**	< 0.065	**0.87**	**4.3**	**0.44**	**2.1**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.79**
6017.1	9/23/2016	ALS	SA	**UA**	**US**	**0.12**	< 0.44	**4**	**0.082**	**0.044**	**0.59**	**0.03**	**0.0059**	< 0.02	< 0.02	< 0.02	**0.004**	< 0.02	< 0.02	**0.54**
6017.2	9/23/2016	ALS	SA	**UA**	**UM**	**0.18**	< 0.47	**4.4**	**0.24**	**0.082**	**1.4**	**0.085**	**0.0073**	< 0.02	< 0.02	< 0.02	**0.0041**	< 0.02	< 0.02	**3.31**
6017.3	9/23/2016	ALS	SA	**UA**	**UD**	**0.18**	< 0.32	**2.8**	**0.19**	**0.092**	**0.97**	**0.072**	**0.0091**	< 0.02	< 0.02	< 0.02	**0.0056**	< 0.02	< 0.02	**3.94**
6018.1	9/3/2016	ALS	SA	**UA**	**US**	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5
6018.2	9/3/2016	ALS	SA	**UA**	**UD**	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5
6019.1	9/13/2016	ALS	SA	**UA**	**US**	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.22**
6019.2	9/13/2016	ALS	SA	**UA**	**UM**	< 0.5	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	**0.0034**	< 0.5
6019.3	9/13/2016	ALS	SA	**UA**	**UD**	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5
6020.1	9/3/2016	ALS	SA	**UA**	**US**	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.61**
6020.2	9/3/2016	ALS	SA	**UA**	**UM**	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.22**
6020.3	9/3/2016	ALS	SA	**UA**	**UD**	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.26**
6500.1	7/8/2016	ALS	SA	**UA**	**US**	< 0.5	**0.095**	< 0.019	**0.0097**	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	**1.19**
6500.1	7/8/2016	ALS	FD	**UA**	**US**	< 0.5	**0.059**	< 0.02	**0.012**	< 0.02	< 0.02	< 0.02	**0.0038**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.79**
6500.2	9/3/2016	ALS	SA	**LA**	**LS**	**11**	< 0.055	< 0.02	< 0.023	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.37**
6500.3	9/3/2016	ALS	SA	**LA**	**LD**	< 0.5	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	**0.23**
6501.1	7/8/2016	ALS	SA	**UA**	**US**	**0.084**	**0.085**	**0.0071**	< 0.021	< 0.021	**0.0054**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5
6502.1	7/8/2016	ALS	SA	**UA**	**UM**	< 0.5	**0.081**	< 0.02	**0.0049**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5
6502.2	9/3/2016	ALS	SA	**LA**	**LS**	< 0.5	< 0.034	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	**0.6**
6502.3	9/3/2016	ALS	SA	**LA**	**LD**	< 0.5	< 0.058	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.35**
6503.1	9/27/2016	ALS	SA	**UA**	**US**	< 0.5	< 0.13	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.0034**	< 0.02	< 0.02	< 0.02	**0.0049**	< 0.02	< 0.02	**0.18**
6503.2	9/14/2016	ALS	SA	**LA**	**LS**	< 0.5	< 0.071	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5
6503.3	9/14/2016	ALS	SA	**LA**	**LD**	< 0.5	< 0.09	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.44**
8001.1	7/9/2016	ALS	SA	**UA**	**UM**	**0.44**	**0.34**	**0.14**	**2.9**	**5.7**	**4.2**	**4.3**	**0.83**	**0.28**	**0.42**	**0.17**	**1**	**0.023**	**0.083**	**10.3**
8002.1	6/8/2016	ALS	SA	**UA**	**UM**	NA	**0.18**	**0.01**	**0.16**	< 0.02	**0.0092**	**0.01**	**0.0098**	**0.0072**	**0.01**	< 0.02	< 0.02	< 0.02	**0.012**	**0.38**
8002.1	6/8/2016	LOSL	SA	**UA**	**UM**	**3.2**	**213**	**17.8**	< 3.5	< 3.5	**6.4**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA
8006.1	9/5/2016	ALS	SA	**UA**	**UM**	< 0.5	< 0.024	< 0.02	< 0.02	< 0.02	< 0.02	**0.0057**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**1.06**

Table 3-5
ANALYTICAL RESULTS OF GROUNDWATER SAMPLES COLLECTED IN 2016

Location ID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/l)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Arsenic-Total (ug/L)
9001.1	7/8/2016	ALS	SA	**UA**	**UM**	**0.14**	**0.34**	**0.17**	**0.027**	< 0.02	**0.033**	< 0.02	**0.0027**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.33**
9500.1	5/31/2016	ALS	SA	**UA**	**UD**	**0.4**	**78**	**130**	**5.8**	**3.3**	**62**	**1.9**	**0.069**	**0.015**	**0.017**	**0.0063**	**0.067**	< 0.02	**0.0055**	**11**
9500.1	5/31/2016	LOSL	SA	**UA**	**UD**	**12**	**209**	**114**	**7.6**	**4**	**59.1**	**3.8**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA
9501.1	5/31/2016	ALS	SA	**UA**	**US**	**1.6**	**0.66**	**54**	**2.6**	**2**	**26**	**1.1**	**0.029**	**0.0077**	**0.0073**	< 0.02	**0.024**	< 0.02	**0.0034**	**7.1**
9501.1	5/31/2016	LOSL	SA	**UA**	**US**	< 3.5	**15.2**	**32.9**	< 3.5	< 3.5	**16**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA
9503.1	9/28/2016	ALS	SA	**UA**	**US**	< 0.5	**55**	**48**	**2.9**	**1.4**	**28**	**0.71**	**0.019**	< 0.02	< 0.02	< 0.02	**0.014**	< 0.02	< 0.02	**26.1**
9503.2	9/28/2016	ALS	SA	**UA**	**UD**	< 0.5	**59**	**42**	**2.4**	**1.1**	**22**	**0.59**	**0.016**	< 0.02	< 0.02	< 0.02	**0.014**	< 0.02	< 0.02	**24.5**
9504.1	7/13/2016	ALS	SA	**UA**	**UM**	**5500**	**110000**	**16000**	**6400**	**13000**	**11000**	**8100**	**1800**	**680**	**910**	**390**	**2000**	**62**	**230**	**8**

Notes:
Numbers in Bold indicates detections.
< = nondetected values less then the reporting limit
Shaded values indicated the the concentation exceeds the MDEQ standard.

Table 4-1
UPPER AND LOWER AQUIFER GROUNDWATER ELEVATIONS

Well Number	Screen Top Depth (ft bgs)	Screen Bottom Depth (ft bgs)	Aquifer Unit	Aquifer Subunit	Ground Surface Elevation (ft amsl)	Measuring Point Elevation (ft amsl)	August 2016 Depth to Groundwater from Measuring Point (ft)	August 2016 Groundwater Elevation (ft amsl)
3001.1	87	90	UA/IZ	UD	2128.509	2131.804	42.74	2089.064
3002.1	24.5	31.5	UA	US	2089.726	2093.593	18.74	2074.853
3002.2	31.5	34.5	UA	UM	2089.726	2093.971	19.31	2074.661
3003.1	21.5	23.5	UA	US	2103.029	2107.834	24.27	2083.564
3003.2	31	34	UA	US	2103.029	2107.344	23.86	2083.484
3005.1	10	10	UA	US	2101.313	2102.718	10.18	2092.538
3005.2	17	20	UA	US	2101.313	2105.365	13.11	2092.255
3005.3	38	41	UA	UM	2101.313	2105.104	14.78	2090.324
3006.1	14	17	UA	US	2107.779	2109.259	**13.16**	**2096.099**
3006.2	22.5	25.5	UA	US	2107.779	2111.844	15.75	2096.094
3006.3	29	32	UA	US	2107.779	2109.595	13.84	2095.755
3007.1	19.5	22.5	UA	US	2103.953	2105.404	16.81	2088.594
3007.2	35	38	UA	UM	2103.953	2105.671	18.28	2087.391
3007.3	42	45	UA	UM	2103.953	2106.135	18.74	2087.395
3008.1	27	30	UA	US	2098.217	2101.87	22.87	2079
3008.2	70	73	UA	UD	2098.217	2101.659	23.59	2078.069
3008.3	111	114	LA	LS	2098.217	2101.367	NM	NM
3008.4	140	153	LA	LD	2098.217	2100.708	NM	NM
3009.1	79	82	UA/IZ	UD	2096.512	2099.616	23.67	2075.946
3010.1	27	30	UA	US	2096.667	2099.533	23.4	2076.133
3010.2	57	60	UA	UD	2096.667	2099.722	23.68	2076.042
3011.1	14	17	UA	US	2102.481	2103.163	10.09	2093.073
3011.2	27	30	UA	UM	2102.481	2106.198	13.39	2092.808
3011.3	36.5	39.5	UA	UM	2102.481	2106.04	13.26	2092.78
3012.1	77	83	UA/IZ	UD	2104.696	2105.339	24.43	2080.909
3012.2	107	109.8	IZ/LA	LS	2104.696	2105.092	NM	NM
3012.3	130	133	LA	LD	2104.696	-999	NM	NM
3013.1	20.4	23.4	UA	US	2108.522	2112.219	22.22	2089.999
3013.2	68	71	UA	UD	2108.522	2111.705	22.46	2089.245
3013.3	131	134	IZ/LA	LS	2108.522	2111.148	30.04	2081.108
3014.1	28	31	UA	US	2110.412	2113.814	23.48	2090.334
3014.2	68	71	UA	UD	2110.412	2114.307	30.21	2084.097
3014.3	128	131	IZ/LA	LS	2110.412	2114.424	NM	NM
3015.1	68	71	UA	UD	2102.219	2106.622	19.19	2087.432
3015.2	150	153	LA	LD	2102.219	2106.192	27.06	2079.132
3015.3	227	230	TILL	LD	2102.219	2105.173	NM	NM
3016.1	66	69	UA	UD	2101.353	2105.562	25.18	2080.382
3016.2	161	164	LA/TILL	LD	2101.353	2105.068	NM	NM
3016.3	331.5	334.5	TILL	TILL	2101.353	2106.183	NM	NM
3017.1	31	34	UA	US	2101.052	2104.799	26.39	2078.409
3017.2	49	52	UA	UM	2101.052	2104.134	25.78	2078.354
3017.3	75	78	UA	UD	2101.052	2103.686	25.63	2078.056

Table 4-1
UPPER AND LOWER AQUIFER GROUNDWATER ELEVATIONS

Well Number	Screen Top Depth (ft bgs)	Screen Bottom Depth (ft bgs)	Aquifer Unit	Aquifer Subunit	Ground Surface Elevation (ft amsl)	Measuring Point Elevation (ft amsl)	August 2016 Depth to Groundwater from Measuring Point (ft)	August 2016 Groundwater Elevation (ft amsl)
3018.1	40	43	UA	UM	2089.619	2092.197	19.05	2073.147
3018.2	151	154	LA	LD	2089.619	2092.659	18.73	2073.929
3018.3	175	178	LA/TILL	LD	2089.619	2092.428	18.54	2073.888
3019.1	355	358	TILL	TILL	2101.946	2106.431	NM	NM
3019.2	397	400	TILL	TILL	2101.946	2106.236	NM	NM
3020.1	154	160	LA	LD	2097.986	2100.002	NM	NM
3021.1	17	20	UA	US	2106.998	2110.404	10.72	2099.684
3022.1	121	124	LA	LS	2095.218	2097.599	NM	NM
3022.2	149	152	LA	LD	2095.218	2097.418	NM	NM
3024.1	145	150	LA	LD	2092.189	2091.992	NM	NM
3025.1	14	34	UA	US	2101.321	2105.871	**16.02**	**2089.851**
3026.1	18	33	UA	US	2102.467	2106.079	19.92	2086.159
3027.1	9	20.5	UA	US	2109.857	2112.127	21.22	2090.907
3028.1	12.2	23.7	UA	US	2116.251	2120.584	25.39	2095.194
3029.1	51	71	UA	UD	2102.551	2104.647	22.95	2081.697
3030.1	28	33	UA	US	2107.557	2109.701	20.29	2089.411
3030.2	66.5	76.5	UA	UD	2107.557	2110.28	27.45	2082.83
3031.1	16	31	UA	US	2101.939	2104.236	**18.1**	**2086.136**
3031.2	37	52	UA	UM	2101.939	2105.403	21.85	2083.553
3032.1	10.5	20.5	UA	US	2104.421	2108.812	16.38	2092.432
3033.1	15	25	UA	US	2112.55	2115.177	22.17	2093.007
3034.1	15	25	UA	US	2114.169	2116.57	20.58	2095.99
3035.1	15	25	UA	US	2110.925	2113.468	21.19	2092.278
3036.1	15	25	UA	US	2109.839	2112.62	16.03	2096.59
3037.1	15	25	UA	US	2109.201	2111.912	12.63	2099.282
3038.1	21	31	UA	US	2098.105	2101.353	19.67	2081.683
3038.2	57	67	UA	UD	2098.105	2101.055	22.68	2078.375
3039.1	15	30	UA	US	2101.409	2104.279	**25.73**	**2078.549**
3039.2	50	65	UA	UD	2101.409	2103.952	24.78	2079.172
3040.1	25	35	UA	US	2105.237	2107.804	22.58	2085.224
3041.1	20	30	UA	US	2101.336	2104.27	25.06	2079.21
3041.2	44	54	UA	UM	2101.336	2103.924	25.91	2078.014
3042.1	20	30	UA	US	2097.834	2097.595	20.65	2076.945
3042.2	42	52	UA	UM	2097.834	2097.497	20.99	2076.507
3043.1	19	29	UA	US	2093.778	2093.02	18.22	2074.8
3043.2	40	50	UA	UM	2093.778	2092.702	18.63	2074.072
3044.1	14	19	UA	UM	2065.582	2067.21	7.14	2060.07
3044.2	88.5	98.5	IZ/LA	LS	2065.582	2067.008	7.62	2059.388
3044.3	144	154	LA	LD	2065.582	2067.415	8.51	2058.905
3045.1	23	23	UA	US	2116.336	2120.415	16.57	2103.845
3046.1	23	23	UA	US	2118.96	2123.32	20.41	2102.91
3047.1	12	27	UA	US	2081.281	2084.258	13.19	2071.068

Table 4-1
UPPER AND LOWER AQUIFER GROUNDWATER ELEVATIONS

Well Number	Screen Top Depth (ft bgs)	Screen Bottom Depth (ft bgs)	Aquifer Unit	Aquifer Subunit	Ground Surface Elevation (ft amsl)	Measuring Point Elevation (ft amsl)	August 2016 Depth to Groundwater from Measuring Point (ft)	August 2016 Groundwater Elevation (ft amsl)
3047.2	95	105	LA	LS	2081.281	2084.111	13.39	2070.721
3047.3	168	178	LA	LD	2081.281	2083.959	13.14	2070.819
3048.1	35	45	UA	UM	2081.153	2081.341	10.31	2071.031
3048.2	55	65	UA	UD	2081.031	2083.875	13.04	2070.835
3049.1	10	25	UA	US	2092.744	2095.262	14.43	2080.832
3049.2	30	40	UA	UM	2092.909	2095.521	15.1	2080.421
3049.3	49	59	UA/IZ	UD	2092.729	2095.117	14.76	2080.357
3050.1	18	28	UA	US	2106.692	2106.312	21.01	2085.302
3050.2	31	41	UA	US	2106.634	2106.337	21.07	2085.267
3050.3	75	85	UA/IZ	UD	2106.581	2106.064	25.92	2080.144
3051.1	57	67	UA	US	2089.592	2092.41	18.34	2074.07
3052.1	20	30	UA	US	2107.96	2110.4	14.08	2096.32
3052.2	40	50	UA	UM	2107.96	2109.97	27.54	2082.43
3052.3	66	76	UA	UD	2107.96	2109.64	**32.93**	**2076.71**
3053.1	20	30	UA	US	2107.99	2111.15	14.54	2096.61
3053.2	37	47	UA	UM	2107.99	2110.68	16.28	2094.4
3053.3	60	70	UA	UD	2107.99	2110.36	30.16	2080.2
3054.1	20	30	UA	US	2107.89	2111.04	13.91	2097.13
3054.2	37	47	UA	UM	2107.89	2110.37	20.69	2089.68
3054.3	60	70	UA	UD	2107.89	2110.08	32.02	2078.06
3055.1	20	30	UA	US	2107.69	2110.64	13.61	2097.03
3055.2	37	47	UA	UM	2107.69	2110	26.84	2083.16
3055.3	60	70	UA	UD	2107.69	2109.73	35.24	2074.49
3056.1	20	30	UA	US	2107.59	2110.58	**13.63**	**2096.95**
3056.2	37	47	UA	UM	2107.59	2110.32	17.1	2093.22
3056.3	60	70	UA	UD	2107.59	2110.01	36.02	2073.99
3057.1	20	30	UA	US	2108.36	2110.93	14.57	2096.36
3057.2	40	50	UA	UM	2108.42	2111.01	23.53	2087.48
3057.3	66	76	UA	UD	2108.34	2110.93	**31.89**	**2079.04**
3058.1	20	30	UA	US	2106.31	stickup 3.34	10.58	2099.07
3058.2	40	50	UA	UM	2106.5	stickup 3.9	28.17	2082.23
3058.3	60	70	UA	UD	2106.5	stickup 3.68	31.12	2079.06
3059.1	15	30	UA	US	2106.58	stickup 3.22	11.14	2098.66
3059.2	40	50	UA	UM	2106.59	stickup 4	29.63	2080.96
3059.3	61	71	UA	UD	2106.59	stickup 3.75	31.77	2078.57
3060.1	15	30	UA	US	2107.33	stickup 3.14	11.79	2098.68
3060.2	40	50	UA	UM	2107.39	stickup 3.88	29.86	2081.41
3060.3	60	70	UA	UD	2107.39	stickup 3.6	29.74	2081.25
3061.1	7	27	UA	US	2099.799	2102.494	**17.55**	**2084.944**
3061.2	47	57	UA	UD	2099.686	2102.384	**23.03**	**2079.354**
3061.3	68	78	UA	UD	2099.398	2102.267	**23.68**	**2078.587**
3062.1	15	30	UA	US	2095.321	2098.374	**20.5**	**2077.874**

Table 4-1
UPPER AND LOWER AQUIFER GROUNDWATER ELEVATIONS

Well Number	Screen Top Depth (ft bgs)	Screen Bottom Depth (ft bgs)	Aquifer Unit	Aquifer Subunit	Ground Surface Elevation (ft amsl)	Measuring Point Elevation (ft amsl)	August 2016 Depth to Groundwater from Measuring Point (ft)	August 2016 Groundwater Elevation (ft amsl)
3062.2	37	47	UA	UM	2095.301	2098.295	**21.01**	**2077.285**
3062.3	53.5	63.5	UA	UD	2095.291	2098.263	**21**	**2077.263**
3063.1	14	29	UA	US	2097.853	2100.873	**21.3**	**2079.573**
3063.2	37	47	UA	UM	2097.638	2100.583	**21.18**	**2079.403**
3063.3	53	63	UA	UD	2097.576	2100.705	**22.65**	**2078.055**
3091.1	102	105	IZ/LA	LS	2094.834	2097.053	NM	NM
3091.2	142	145	LA	LD	2094.834	2096.731	NM	NM
3092.1	20	20	UA	US	2073.517	-999	NM	NM
3093.1	120	135	LA	LD	2105.323	-999	NM	NM
3094.1	8	8	UA	US	2073.204	2076.165	9.1	2067.065
5512.1	14	27	UA	US	2108.447	2111.598	17.19	2094.408
5512.2	39	49	UA	UM	2108.473	2111.736	29.01	2082.726
5512.3	61	71	UA	UD	2108.638	2111.795	30.77	2081.025
5513.1	5	18	UA	US	2105.708	2108.374	9.36	2099.014
5513.2	36	46	UA	UM	2105.464	2108.597	25.31	2083.287
5513.3	57	67	UA	UD	2105.834	2108.599	30.95	2077.649
6001.1	42	45	UA	UM	2099.921	2103.515	28.55	2074.965
6001.2	109	112	IZ/LA	LS	2099.921	2103.175	29.49	2073.685
6002.1	19	22	UA	US	2084.154	2083.743	15.09	2068.653
6002.2	128	131	LA	LS	2084.154	2083.612	14.91	2068.702
6002.3	159	162	LA	LD	2084.154	2083.96	14.7	2069.26
6003.1	29	32	UA	US	2084.965	2084.822	17.02	2067.802
6003.2	137	140	LA	LS	2084.965	2084.628	16.81	2067.818
6003.3	161	164	LA	LD	2084.965	2084.542	15.9	2068.642
6004.1	156	159	LA	LD	2093.994	2093.705	NM	NM
6007.1	138	148	LA/TILL	LD	2090.603	2091.975	19.77	2072.205
6008.1	147	158	LA/TILL	LD	2100.478	2100.233	NM	NM
6009.1	153	158	LA	LD	2089.432	2092.073	19.88	2072.193
6010.1	21	31	UA	US	2100.285	2099.921	23.24	2076.681
6010.2	34	44	UA	UM	2100.291	2099.804	23.23	2076.574
6010.3	50	60	UA	UD	2100.236	2099.796	23.22	2076.576
6011.1	18	28	UA	US	2097.427	2096.984	20.78	2076.204
6011.2	35	45	UA	UM	2097.353	2096.865	20.93	2075.935
6011.3	50	60	UA	UD	2097.261	2096.796	20.89	2075.906
6012.1	18	28	UA	US	2095.131	2094.713	20.14	2074.573
6012.2	32	42	UA	UM	2095.174	2094.838	20.39	2074.448
6012.3	50	60	UA	UD	2095.191	2094.707	20.71	2073.997
6013.1	15	25	UA	US	2090.372	2089.881	18.02	2071.861
6013.2	28	38	UA	UM	2090.462	2089.901	18.11	2071.791
6013.3	47	57	UA	UD	2090.57	2089.935	18.49	2071.445
6014.1	14	29	UA	US	2084.817	2084.48	16.73	2067.75
6014.2	34	44	UA	UM	2084.808	2084.468	16.58	2067.888

Table 4-1
UPPER AND LOWER AQUIFER GROUNDWATER ELEVATIONS

Well Number	Screen Top Depth (ft bgs)	Screen Bottom Depth (ft bgs)	Aquifer Unit	Aquifer Subunit	Ground Surface Elevation (ft amsl)	Measuring Point Elevation (ft amsl)	August 2016 Depth to Groundwater from Measuring Point (ft)	August 2016 Groundwater Elevation (ft amsl)
6014.3	54	64	UA	UD	2084.82	2084.475	16.47	2068.005
6015.1	13	23	UA	US	2083.884	2083.514	14.86	2068.654
6015.2	29	39	UA	UM	2083.793	2083.401	14.85	2068.551
6015.3	45	55	UA	UD	2083.745	2083.437	14.68	2068.757
6016.1	14	24	UA	US	2089.215	2088.85	16.8	2072.05
6016.2	34	44	UA	UM	2089.328	2088.847	16.82	2072.027
6016.3	54	64	UA	UD	2089.235	2088.992	16.8	2072.192
6017.1	33	43	UA	US	2111.068	2110.736	35.05	2075.686
6017.2	46	56	UA	UM	2111.068	2110.676	35.08	2075.596
6017.3	59	69	UA	UD	2111.068	2110.69	35.12	2075.57
6018.1	16	26	UA	US	2085.305	2084.975	18.3	2066.675
6018.2	44	54	UA	UD	2085.305	2084.872	18.25	2066.622
6019.1	13	23	UA	US	2077.997	2077.549	12.65	2064.899
6019.2	33	43	UA	UM	2077.997	2077.539	13.25	2064.289
6019.3	47	57	UA	UD	2077.997	2077.565	13.31	2064.255
6020.1	6	16	UA	US	2070.822	2070.442	8.16	2062.282
6020.2	23	33	UA	UM	2070.822	2070.498	8.18	2062.318
6020.3	41	51	UA	UD	2070.822	2070.45	8.21	2062.24
6500.1	21	31	UA	US	2073.009	2075.808	15.82	2059.988
6500.2	91	101	LA	LS	2073.009	2075.678	16.97	2058.708
6500.3	150	155	LA	LD	2073.009	2075.531	16.79	2058.741
6501.1	25	35	UA	US	2077.417	2078.838	23.08	2055.758
6501.2	133	143	LA	LD	2077.417	2078.579	23.04	2055.539
6502.1	33.5	43.5	UA	UM	2085.23	2085.206	18.59	2066.616
6502.2	92.5	102.5	LA	LS	2085.23	2085.111	18.64	2066.471
6502.3	142.5	152.5	LA	LD	2085.23	2085.006	19.02	2065.986
6503.1	25	35	UA	US	2094.292	2097.553	24.9	2072.653
6503.2	132.5	136.5	LA	LS	2094.292	2097.4	24.88	2072.52
6503.3	149	159	LA	LD	2094.292	2097.273	24.9	2072.373
8001.1	39	41	UA	UM	2099.249	2102.404	NM	NM
8001.2	119	121	LA	LS	2099.249	2102.117	NM	NM
8002.1	35	37	UA	UM	2107.03	2111.252	18.4	2092.852
8002.2	114	116	IZ/LA	LS	2107.03	2110.752	NM	NM
8002.3	180	182	LA	LD	2107.03	2110.521	NM	NM
8004.1	115	118	LA	LS	2089.526	2092.553	17.7	2074.853
8004.2	176	179	LA	LD	2089.526	2092.297	18.02	2074.277
8005.1	35	37	UA	UM	2100.688	2105.151	abandoned	NM
8005.2	121	123	LA	LS	2100.688	2104.744	NM	NM
8006.1	38	40	UA	UM	2095.976	2095.692	19.78	2075.912
8006.2	93.5	95.5	UA	IZ	2095.976	2095.609	NM	NM
8006.3	137.5	139.5	LA	LD	2095.976	2095.516	NM	NM
9001.1	25	40	UA	UM	2094.758	2097.578	21.45	2076.128

Table 4-1
UPPER AND LOWER AQUIFER GROUNDWATER ELEVATIONS

Well Number	Screen Top Depth (ft bgs)	Screen Bottom Depth (ft bgs)	Aquifer Unit	Aquifer Subunit	Ground Surface Elevation (ft amsl)	Measuring Point Elevation (ft amsl)	August 2016 Depth to Groundwater from Measuring Point (ft)	August 2016 Groundwater Elevation (ft amsl)
9003.1	114	129	LA	LD	2098.531	-999	NM	NM
9006.1	67	73	UA	UD	2110.202	2112.502	NM	NM
9008.1	65	75	UA	UD	2109.414	2112.011	NM	NM
9009.1	73.5	77.5	UA	UD	2107.067	2109.11	NM	NM
9500.1	45	65	UA	UD	2104.115	2106.549	14.59	2091.959
9501.1	18	38	UA	US	2104.03	2106.731	14.38	2092.351
9502.1	20	40	UA	US	2098.304	-999	NM	NM
9503.1	19	39	UA	US	2101.989	-999	19.39	NM
9503.2	45	55	UA	UD	2101.989	-999	19.07	NM
9504.1	42	52	UA	UM	2108.591	2110.341	NM	NM
9505.1	27	30	UA	US	2107.92	2110.66	15.07	2095.59
9505.2	44	47	UA	UM	2107.92	2110.43	26.9	2083.53
9505.3	67	70	UA	UD	2107.92	2109.89	34.75	2075.14
9506.1	27	30	UA	US	2108.22	2110.82	13.62	2097.2
9506.2	44	47	UA	UM	2108.18	2110.66	28.52	2082.14
9506.3	67	70	UA	UD	2108.25	2110.82	**31.56**	**2079.26**
9507.1	27	30	UA	US	2108.92	stickup 4.2	16.19	2096.93
9507.2	67.3	70.3	UA	UD	2108.92	stickup 3.37	29.45	2082.84
9508.1	27	30	UA	US	2108.43	stickup 3.1	13.78	2097.75
9508.2	68	71	UA	UD	2108.43	stickup 3.03	30.68	2080.78
9509.1	26	29	UA	US	2107.6	stickup 4.03	13.63	2098
9509.2	67	70	UA	UD	2107.6	stickup 2.88	35.26	2075.22
9510.1	27	30	UA	US	2107.98	stickup 4.05	13.7	2098.33
9510.2	67	70	UA	UD	2107.98	stickup 3.67	33.64	2078.01
9511.1	27.5	30.5	UA	US	2107.37	stickup 3.32	12.13	2098.56
9511.2	67	70	UA	UD	2107.37	stickup 2.97	40.25	2070.09
Fire Pond	NA	NA	NA			2104.235	2.47	2101.765

Notes:
Red bolded values are groundwater levels in wells with measurable LNAPL overlying the water column in the well. Value is groundwater level beneath the LNAPL.
Purple bolded values are groundwater levels measured in September 2016 after the well was installed.

ft amsl = feet above mean sea level
ft bgs = feet below ground surface
IZ = intermediate zone
NA = Not applicable
NM = Not measured
LA = Lower Aquifer
LD = Lower Aquifer Deep Subunit
LS = Lower Aquifer Shallow Subunit
UA= Upper Aquifer
UD = Upper Aquifer Deep Subunit
UM = Upper Aquifer Middle Subunit
US= Upper Aquifer Shallow Subunit

TABLE 5-1

2016 NAPL MONITORING AND RECOVERY

UPPER AQUIFER MONITORING PROGRAM Annual NAPL Survey for 2015							
Well No.	Screen Depth Feet bgs.	Quarter	LNAPL	Recovered[2] (liters)	DNAPL	Recovered[2] (liters)	Comments
3002.1	24.5-31.5	1st	None	0	None	0	No odor; no film; no oil
		2nd	None	0	None	0	No odor; no film; no oil
		3rd	NM[2]	0	NM[2]	0	
		4th	NM[2]	0	NM[2]	0	
3003.1	21.5-23.5	1st	None	0	None	0	No odor; no film; no oil
		2nd	None	0	None	0	No odor; no film; no oil
		3rd	NM[2]	0	NM[2]	0	
		4th	NM[2]	0	NM[2]	0	
3003.2	31-34	1st	None	0	None	0	No odor; no film; no oil
		2nd	None	0	None	0	No odor; no film; no oil
		3rd	NM[2]	0	NM[2]	0	
		4th	NM[2]	0	NM[2]	0	
3005.2	17-20	1st	None	0	None	0	No odor; no film; no oil
		2nd	None	0	None	0	No odor; no film; no oil
		3rd	NM[2]	0	NM[2]	0	
		4th	NM[2]	0	NM[2]	0	

TABLE 5-1

2016 NAPL MONITORING AND RECOVERY

3005.3	38-41	1st	None	0	None	0	No odor; no film; no oil
		2nd	None	0	None	0	No odor; no film; no oil
		3rd	NM[2]	0	NM[2]	0	
		4th	NM[2]	0	NM[2]	0	
3008.1	27-30	1st	None	0	None	0	No odor; no film; no oil
		2nd	None	0	None	0	No odor; no film; no oil
		3rd	NM[2]	0	NM[2]	0	
		4th	NM[2]	0	NM[2]	0	
3015.1	68-71	1st	None	0	None	0	No odor; no film; no oil
		2nd	None	0	None	0	No odor; no film; no oil
		3rd	NM[2]	0	NM[2]	0	
		4th	NM[2]	0	NM[2]	0	
3017.1	31-34	1st	Sheen	0	None	0	Surface Odor
		2nd	Sheen	0	None	0	Surface Odor
		3rd	NM[2]	0	NM[2]	0	
		4th	NM[2]	0	NM[2]	0	

TABLE 5-1

2016 NAPL MONITORING AND RECOVERY

3017.2	49-52	1st	Film	0	None	0	Odor
		2nd	Sheen	0	None	0	Surface Odor
		3rd	NM[2]	0	NM[2]	0	
		4th	NM[2]	0	NM[2]	0	
3017.3	75-78	1st	Film	0	None	0	Odor
		2nd	Film	0	None	0	Surface Odor
		3rd	NM[2]	0	NM[2]	0	
		4th	NM[2]	0	NM[2]	0	
3018.1	40-43	1st	None	0	None	0	No odor; no film; no oil
		2nd	None	0	None	0	No odor; no film; no oil
		3rd	NM[2]	0	NM[2]	0	
		4th	NM[2]	0	NM[2]	0	

TABLE 5-1

2016 NAPL MONITORING AND RECOVERY

3021.1	17-20	1st	None	0	None	0	No odor; no film; no oil
		2nd	None	0	None	0	No odor; no film; no oil
		3rd	NM[2]	0	NM[2]	0	
		4th	NM[2]	0	NM[2]	0	
3025.1	14-34	1st	0.13’	0	Oil Droplets	0	Surface oil and odor: bottom NAPL droplets and Odor
		2nd	0.16’	0	Oil Droplets	0	Surface oil and odor: bottom NAPL droplets and Odor
		3rd	NM[2]	0	NM[2]	0	
		4th	NM[2]	0	NM[2]	0	
3026.1	18-33	1st	Sheen	0	None	0	Surface Odor
		2nd	Sheen	0	None	0	Surface Odor
		3rd	NM[2]	0	NM[2]	0	
		4th	NM[2]	0	NM[2]	0	

TABLE 5-1

2016 NAPL MONITORING AND RECOVERY

3029.1	51-71	1st	None	0	Oil Droplets	0	Surface no odor; no film; no oil; bottom oil and odor
		2nd	None	0	Oil Droplets	0	Surface no odor; no film; no oil; bottom oil and odor
		3rd	NM[2]	0	NM[2]	0	
		4th	NM[2]	0	NM[2]	0	
3031.1	16-31	1st	0.72’	0.4	NM[3]	0	Surface oil and odor: Recovered app. 0.4 liters of LNAPL from surface
		2nd	0.68’	0.41	NM[3]	0	Surface oil and odor: Recovered app. 0.41 liters of NAPL from surface.
		3rd	NM[2]	0	NM[2]	0	
		4th	NM[2]	0	NM[2]	0	
3031.2	37-52	1st	Film	0	Oil Droplets	0	Surface oil and odor: bottom NAPL droplets and odor
		2nd	Film	0	Oil Droplets	0	Surface oil and odor, bottom NAPL droplets and odor
		3rd	NM[2]	0	NM[2]	0	
		4th	NM[2]	0	NM[2]	0	
3032.1	10.5-20.5	1st	None	0	None	0	No odor; no film; no oil
		2nd	None	0	None	0	No odor; no film; no oil
		3rd	NM[2]	0	NM[2]	0	
		4th	NM[2]	0	NM[2]	0	

TABLE 5-1

2016 NAPL MONITORING AND RECOVERY

3035.1	15-25	1st	None	0	None	0	No odor; no film; no oil
		2nd	None	0	None	0	No odor; no film; no oil
		3rd	NM[2]	0	NM[2]	0	
		4th	NM[2]	0	NM[2]	0	
3038.1	21-31	1st	None	0	None	0	No odor; no film; no oil
		2nd	None	0	None	0	No odor; no film; no oil
		3rd	NM[2]	0	NM[2]	0	
		4th	NM[2]	0	NM[2]	0	
3038.2	57-67	1st	None	0	None	0	No odor; no film; no oil
		2nd	None	0	None	0	No odor; no film; no oil
		3rd	NM[2]	0	NM[2]	0	
		4th	NM[2]	0	NM[2]	0	
3039.1	15-30	1st	1.01’	0.61	NM	0	Surface odor and oil: Recovered 0.61 liters.
		2nd	1.22’	0.75	NM[3]	0	Surface odor and oil: Recovered 0.75 liters from surface.
		3rd	NM[2]	0	NM[2]	0	
		4th	NM[2]	0	NM[2]	0	

TABLE 5-1

2016 NAPL MONITORING AND RECOVERY

3039.2	50-65	1st	NM	0	NM	0	NM[1]
		2nd	NM	0	NM	0	NM
		3rd	NM[2]	0	NM[2]	0	
		4th	NM[2]	0	NM[2]	0	
3041.1	20-30	1st	None	0	None	0	No odor; no film; no oil
		2nd	None	0	None	0	No odor; no film; no oil
		3rd	NM[2]	0	NM[2]	0	
		4th	NM[2]	0	NM[2]	0	
3041.2	44-54	1st	None	0	None	0	No odor; no film; no oil
		2nd	None	0	None	0	No odor; no film; no oil
		3rd	NM[2]	0	NM[2]	0	
		4th	NM[2]	0	NM[2]	0	
3042.1	20-30	1st	None	0	None	0	No odor, no film, no oil
		2nd	None	0	None	0	No Odor, No Film, No Oil
		3rd	NM[2]	0	NM[2]	0	
		4th	NM[2]	0	NM[2]	0	

TABLE 5-1

2016 NAPL MONITORING AND RECOVERY

3042.2	42-52	1st	None	0	None	0	No odor; no film; no oil
		2nd	None	0	None	0	No odor; no film; no oil
		3rd	NM[2]	0	NM[2]	0	
		4th	NM[2]	0	NM[2]	0	
3043.1	19-29	1st	None	0	None	0	No odor; no film; no oil
		2nd	None	0	None	0	No odor; no film; no oil
		3rd	NM[2]	0	NM[2]	0	
		4th	NM[2]	0	NM[2]	0	
3043.2	40-50	1st	None	0	None	0	No odor; no film; no oil
		2nd	None	0	None	0	No odor; no film; no oil
		3rd	NM[2]	0	NM[2]	0	
		4th	NM[2]	0	NM[2]	0	

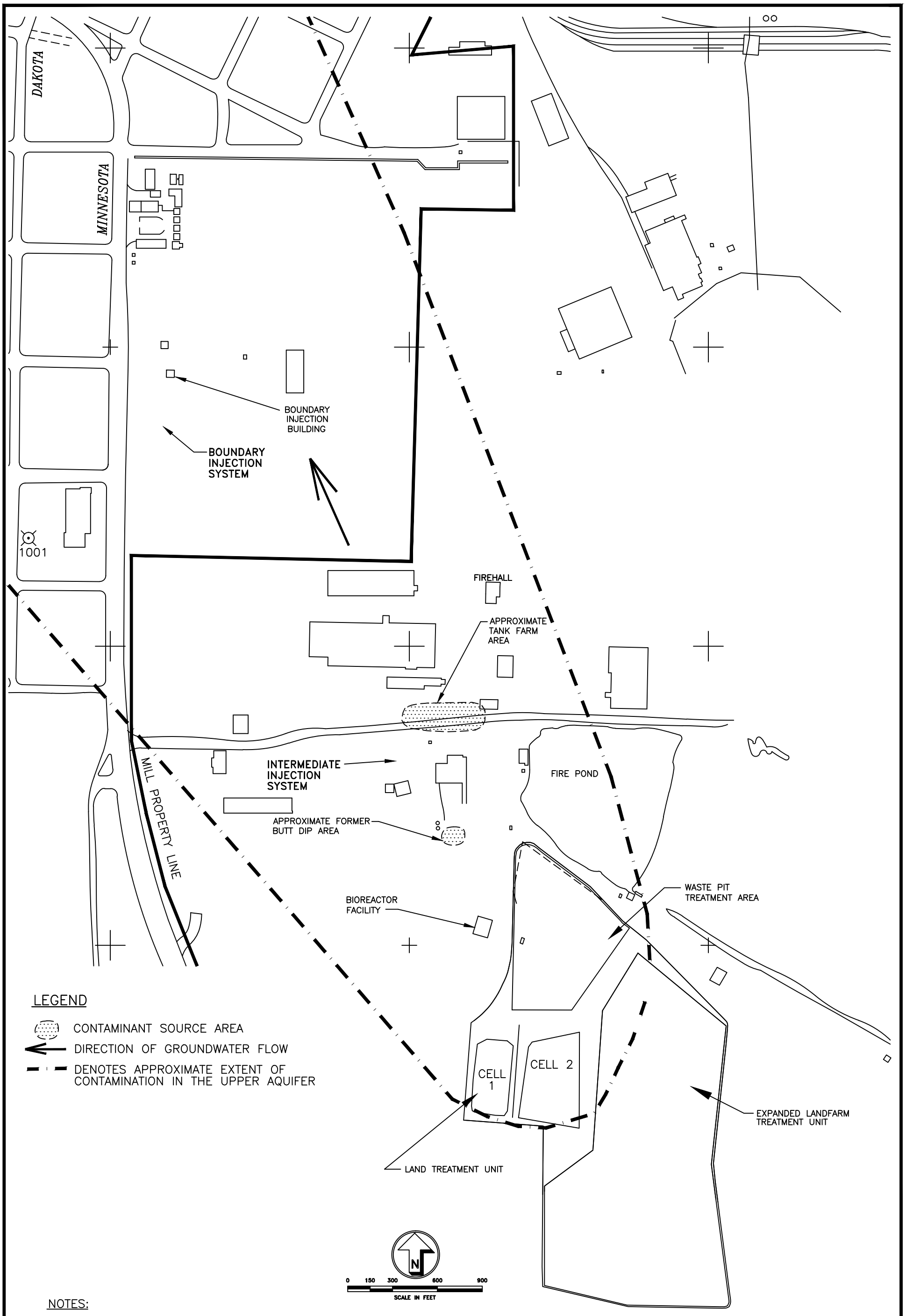
1 "Not Measured" due to Snow.

2 "Not Measured" due to suspension of program in support of the NAPL transmissivity assessment.

[2] Amount recovered is estimated.

[3] Inadvertently Not Measured

FIGURES



NOTES:

1. MANY OF THE 3000, 5000, 6000, 8000, AND 9000 SERIES WELLS ARE COMPLETED AS WELL NESTS. THEREFORE THERE MAY BE MORE THAN ONE WELL AT THE NOTED LOCATION.

Job No. : 2000–12	LOCATION OF REMEDIAL SYSTEMS AT THE LIBBY SITE
Prepared by : D.M.C.	
Date : 3/28/2017	

FIG. 1–1

M:\DCS\Projects\Secure\IP\GIS\2017 maps\2016 Annual Report\Fig2-01 PCP Concentrations LA 2016.mxd

AECOM

PCP Concentrations in the Lower Aquifer

Wells Sampled in 2016

Non-Detect Results

Labels: Location ID and [RL (µg/L)]

- RL < MDEQ Standard

Detected Results

Labels: Location ID and [Concentration (µg/L)]

- <1
- 1 - 9.9
- 10 - 99.9
- 100 - 1,000
- >1,000

MDEQ Standard = 1 µg/L PCP

Standard Source: MDEQ Circular DEQ-7 Numeric Groundwater Standards, October 2012

Bold Indicates detection above MDEQ standard

- Lower Aquifer Well Location Not Sampled in 2016
- Groundwater Elevation Contour for the Lower Aquifer, July/August 2016 (feet amsl)
- Estimated area where NAPL may be present in the Lower Aquifer based on observation of oil or sheen in soil cuttings/core during drilling from 1983 to 2005.
- Estimated area of Lower Aquifer where groundwater PCP concentrations may exceed 1 µg/L, based on recent and historical data.

6501
2056
2058
2060
2062
2064
2066
2068
2070
2072
2074
2076
2078
2080
Kootenai River
Libby Creek
6500.2 [11]
6500.3 [<0.5]
3044.2 [0.09]
3044.3 [0.12]
6502.2 [<0.5]
6502.3 [<0.5]
6003.2 [39]
6003.3 [170]
6002.2 [10]
6002.3 [220]
3047.2 [<0.5]
3047.3 [<0.5]
6503.2 [<0.5]
6503.3 [<0.5]
6007.1 [390]
6009
6008
6004
3018.2 [2.5]
8004
3024
6001.2 [0.099]
8006
3091
3022
9003
3020
3008
8001
3016
3015
3012
Fire Pond
3013
8002
Diversion Canal
3014
3093
Land Treatment Area
Expanded Land Farm Treatment Area
2
N
W
E
S
0
500
Feet

Concentrations for samples analyzed by ALS are shown

amsl = above mean sea level
Vertical datum: NAVD 88

MDEQ = Montana Department of Environmental Quality

NAPL = non-aqueous phase liquid

PCP = Pentachlorophenol

RL = laboratory reporting limit

µg/L = micrograms per liter

PCP Concentrations in the Lower Aquifer 2016

Job No.:	60443319
Designed By:	ARM
Drawn By:	JLC
Date:	2/15/2017

2016 ANNUAL GROUNDWATER MONITORING REPORT FOR THE UPPER AND LOWER AQUIFER
LIBBY GROUNDWATER SITE, LIBBY, MONTANA

Fig. 2-1

M:\DCS\Projects\Secure\IP\GIS\2017 maps\2016 Annual Report\Fig3-01A PCP Concentrations US 2016.mxd

AECOM

PCP Concentrations in Upper Aquifer Shallow Subunit

Wells Sampled in 2016

Non-Detect Results

Labels: Location ID and [RL (µg/L)]

- RL < MDEQ Standard

Detected Results

Labels: Location ID and [Concentration (µg/L)]

- <1
- 1 - 9.9
- 10 - 99.9
- 100 - 1,000
- >1,000

MDEQ Standard = 1 µg/L PCP

Standard Source: MDEQ Circular DEQ-7 Numeric Groundwater Standards, October 2012

Bold Indicates detection above MDEQ standard

* Indicates NAPL sheen, droplets, or greater accumulations may be present in well based on NAPL monitoring since 2014

- Groundwater Elevation Contour for Shallow Subunit of the Upper Aquifer, July/August 2016 (feet amsl)
- Estimated area where NAPL may be present in the Upper Aquifer based on observation of oil or sheen in soil cuttings/core during drilling from 1983 to 2016.
- Estimated area of Upper Aquifer where groundwater PCP concentrations may exceed 1 µg/L, based on recent and historical data.

Concentrations for samples analyzed by ALS are shown

amsl = above mean sea level
Vertical datum: NAVD 88

MDEQ = Montana Department of Environmental Quality

NAPL = non-aqueous phase liquid

PCP = Pentachlorophenol

RL = laboratory reporting limit

µg/L = micrograms per liter

Kootenai River

Libby Creek

Fire Pond

Land Treatment Area

Expanded Land Farm Treatment Area

Diversion Canal

6501.1 [0.084]
6500.1 [<0.5]
6020.1 [<0.5]
6019.1 [<0.5]
6018.1 [<0.5]
6003.1 [<0.5]
6014.1 [<0.5]
6015.1 [<0.5]
6002.1 [<0.5]
6013.1 [<0.5]
3047.1 [<0.5]
6503.1 [<0.5]
6016.1 [<0.5]
6012.1 [<0.5]
3002.1 [<0.5]
3043.1 [<0.5]
6017.1 [0.12]
6011.1 [<0.5]
3010.1 [<0.5]
3049.1 [<0.5]
3062.1 [3]
3042.1 [<0.5]*
3063.1 [<0.5]*
6010.1 [0.93]
3038.1 [<0.5]
3017.1 [0.68]
3008.1 [3.9]
3041.1 [<0.5]
3061.1 [0.68]*
9503.1 [<0.5]
3039.1 [110]*
3025.1 [16]*
3031.1 [18]*
3003.1 [<0.5]
3003.2 [140]
3005.1 [0.095]
3005.2 [<0.5]
3026.1 [48]*
3011.1 [<0.5]
3032.1 [0.61]
9501.1 [1.6]
3007.1 [0.76]
3040.1 [<0.5]
3050.1 [<0.5]
3050.2 [<0.5]
3006.1 [9.7]*
3006.2 [0.78]*
3006.3 [1.7]*
5512.1 [3600]*
5513.1 [2900]
3055.1 [890]
3013.1 [360]
3052.1 [4200]*
3053.1 [3800]*
3057.1 [2000]*
3030.1 [54]*
3059.1 [1900]
3058.1 [2.5]
3060.1 [2000]
3056.1 [4100]*
3021.1 [<0.5]
3037.1 [1.1]
3054.1 [4000]*
3014.1 [<0.5]

2056 2058 2060 2062 2064 2066 2068 2070 2072 2074 2076 2078 2080 2082 2084 2086 2088 2090 2092 2094 2096 2098 2100 2102 2104

2

N W E S

0 500 Feet

Job No.:	60443319
Designed By:	ARM
Drawn By:	JLC
Date:	2/15/2017

PCP Concentrations in the Upper Aquifer Shallow Subunit 2016

2016 ANNUAL GROUNDWATER MONITORING REPORT FOR THE UPPER AND LOWER AQUIFER
LIBBY GROUNDWATER SITE, LIBBY, MONTANA

Fig. 3-1A

M:\DCS\Projects\Secure\IP\GIS\2017 maps\2016 Annual Report\Fig3-01B PCP Concentrations UMUD 2016.mxd

AECOM

PCP Concentrations in Upper Aquifer Middle/Deep Subunit

Wells Sampled in 2016

Non-Detect Results

Labels: Location ID and [RL (µg/L)]

- RL < MDEQ Standard

Detected Results

Labels: Location ID and [Concentration (µg/L)]

- <1
- 1 - 9.9
- 10 - 99.9
- 100 - 1,000
- >1,000

MDEQ Standard = 1 µg/L PCP

Standard Source: MDEQ Circular DEQ-7 Numeric Groundwater Standards, October 2012

Bold Indicates detection above MDEQ standard

* Indicates NAPL sheen, droplets, or greater accumulations may be present in well based on NAPL monitoring since 2014

- Groundwater Elevation Contour for Deep Subunit of the Upper Aquifer, July/August 2016 (feet amsl)
- Estimated area where NAPL may be present in the Upper Aquifer based on observation of oil or sheen in soil cuttings/core during drilling from 1983 to 2016.
- Estimated area of Upper Aquifer where groundwater PCP concentrations may exceed 1 µg/L, based on recent and historical data.

Kootenai River

Libby Creek

Fire Pond

Land Treatment Area

Diversion Canal

Expanded Land Farm Treatment Area

3044.1 [<0.5]

6020.2 [<0.5]
6020.3 [<0.5]

6019.2 [<0.5]
6019.3 [<0.5]

6018.2 [<0.5]
6502.1 [<0.5]

6014.2 [0.85]
6014.3 [1.5]

6015.2 [0.41]
6015.3 [0.14]

6013.2 [<0.5]
6013.3 [<0.5]

3048.1 [0.077]
3048.2 [<0.5]

6016.2 [<0.5]
6016.3 [0.9]

6012.2 [<0.5]
6012.3 [<0.5]

3018.1 [0.78]
3051.1 [<0.5]

3002.2 [110]

3043.2 [<0.5]

6001.1 [0.18]

6017.2 [0.18]
6017.3 [0.18]

8006.1 [<0.5]

9001.1 [0.14]

6011.2 [<0.5]
6011.3 [<0.5]

3009.1 [0.3]
3010.2 [<0.5]

3062.2 [<0.5]
3062.3 [1.5]

3049.2 [0.15]
3049.3 [<0.5]

3042.2 [<0.5]

3063.2 [<0.5]
3063.3 [16]

6010.2 [0.59]
6010.3 [0.076]

3017.2 [0.27]*
3017.3 [430]*

3008.2 [870]*

3038.2 [<0.5]

3061.2 [780]*
3061.3 [1300]

3041.2 [6]

9503.2 [<0.5]

8001.1 [0.44]

3039.2 [2.9]*

3005.3 [<0.5]

3031.2 [390]*

3016.1 [<0.5]*

3029.1 [1500]*

3015.1 [<0.5]

3011.2 [<0.5]
3011.3 [0.072]

9500.1 [0.4]

3012.1 [0.31]*

3007.2 [140]
3007.3 [570]

3050.3 [0.11]

3059.2 [2000]
3059.3 [5700]
3058.2 [3900]
3058.3 [7500]
3060.2 [2400]
3060.3 [4500]
3056.2 [3300]
3056.3 [3100]*

3030.2 [280]*
5512.2 [8400]
5512.3 [7400]*
5513.2 [9600]
5513.3 [9900]
9504.1 [5500]*
3013.2 [20]

8002.1 [3.2]*

3055.2 [13000]
3055.3 [4400]*

3054.2 [2900]
3054.3 [5900]*

3052.2 [5600]
3052.3 [2500]*

3053.2 [2300]
3053.3 [6800]*

3014.2 [<0.5]

3057.2 [2700]
3057.3 [2400]*

2062 2064 2066 2068 2070 2072 2074 2076 2078 2080 2082 2084 2086 2088

Concentrations for samples analyzed by ALS are shown, except well 8002.1 was analyzed by the onsite laboratory
amsl = above mean sea level
Vertical datum: NAVD 88

MDEQ = Montana Department of Environmental Quality

NAPL = non-aqueous phase liquid

PCP = Pentachlorophenol

RL = laboratory reporting limit

µg/L = micrograms per liter

N W E S

0 500 Feet

PCP Concentrations in the Upper Aquifer Middle/Deep Subunit 2016

2016 ANNUAL GROUNDWATER MONITORING REPORT FOR THE UPPER AND LOWER AQUIFER
LIBBY GROUNDWATER SITE, LIBBY, MONTANA

Job No.:	60443319
Designed By:	ARM
Drawn By:	JLC
Date:	2/20/2017

Fig. 3-1B

M:\DCS\Projects\Secure\IP\GIS\2017 maps\2016 Annual Report\Fig3-02A Naphthalene Concentrations US 2016.mxd

AECOM

Naphthalene Concentrations Upper Aquifer Shallow Subunit

Wells Sampled in 2016

Non-Detect Results

Labels: Location ID and [RL (µg/L)]

- RL < MDEQ Standard

Detected Results

Labels: Location ID and [Concentration (µg/L)]

- <100
- 100 - 999.9
- 1,000 - 10,000
- >10,000

MDEQ Standard = 100 µg/L Naphthalene

Standard Source: MDEQ Circular DEQ-7 Numeric Groundwater Standards, October 2012

Bold Indicates detection above MDEQ standard

* Indicates NAPL sheen, droplets, or greater accumulations may be present in well based on NAPL monitoring since 2014

- Groundwater Elevation Contour for Shallow Subunit of the Upper Aquifer, July/August 2016 (feet amsl)
- Estimated area where NAPL may be present in the Upper Aquifer based on observation of oil or sheen in soil cuttings/core during drilling from 1983 to 2016.
- Estimated area of Upper Aquifer where groundwater naphthalene concentrations may exceed 100 µg/L, based on recent and historical data.

Concentrations for samples analyzed by ALS are shown

amsl = above mean sea level
Vertical datum: NAVD 88

MDEQ = Montana Department of Environmental Quality

NAPL = non-aqueous phase liquid

RL = laboratory reporting limit

µg/L = micrograms per liter

Kootenai River

Libby Creek

Fire Pond

Diversion Canal

Land Treatment Area

Expanded Land Farm Treatment Area

6501.1 [0.085]
6500.1 [0.095]
6020.1 [<0.02]
6019.1 [<0.02]
6018.1 [<0.02]
6003.1 [<0.02]
6014.1 [<0.02]
6015.1 [<0.02]
6002.1 [<0.02]
6013.1 [<0.02]
3047.1 [<0.02]
6503.1 [<0.13]
6016.1 [<0.02]
6012.1 [<0.02]
3002.1 [<0.02]
3043.1 [<0.02]
6017.1 [<0.44]
6011.1 [<0.39]
3010.1 [23]
3049.1 [<0.02]
3062.1 [980]
3042.1 [2.3]*
3063.1 [<0.97]*
6010.1 [<0.073]
3038.1 [<0.02]
3017.1 [620]
3008.1 [1200]
3041.1 [75]
3061.1 [350]*
9503.1 [55]
3039.1 [2800]*
3025.1 [150]*
3031.1 [460]*
3005.1 [0.43]
3003.1 [0.88]
3005.2 [<0.02]
3003.2 [0.29]
3026.1 [2800]*
3011.1 [<0.02]
3032.1 [98]
9501.1 [0.66]
3007.1 [730]
3040.1 [<0.02]
3050.1 [<0.02]
3050.2 [<0.02]
3006.1 [4500]*
3006.2 [22000]*
3006.3 [29000]*
5512.1 [1800]*
5513.1 [3100]
3055.1 [820]
3030.1 [13000]*
3059.1 [8100]
3058.1 [4200]
3060.1 [110000]
3056.1 [1800]*
3013.1 [47]
3021.1 [<0.02]
3052.1 [1700]*
3053.1 [1400]*
3057.1 [3200]*
3037.1 [0.15]
3054.1 [13000]*
3014.1 [<0.02]

2056 2058 2060 2062 2064 2066 2068 2070 2072 2074 2076 2078 2080 2082 2084 2086 2088 2090 2092 2094 2096 2098 2100 2102 2104

2

N W E S

0 500 Feet

Naphthalene Concentrations in the Upper Aquifer Shallow Subunit 2016

2016 ANNUAL GROUNDWATER MONITORING REPORT FOR THE UPPER AND LOWER AQUIFER
LIBBY GROUNDWATER SITE, LIBBY, MONTANA

Job No.:	60443319
Designed By:	ARM
Drawn By:	JLC
Date:	2/20/2017

Fig. 3-2A

M:\DCS\Projects\Secure\IP\GIS\2017 maps\2016 Annual Report\Fig3-02B Naphthalene Concentrations UMUD 2016.mxd

AECOM

Naphthalene Concentrations Upper Aquifer Middle/Deep Subunit

Wells Sampled in 2016

Non-Detect Results

Labels: Location ID and [RL (µg/L)]

- RL < MDEQ Standard

Detected Results

Labels: Location ID and [Concentration (µg/L)]

- <100
- 100 - 999.9
- 1,000 - 10,000
- >10,000

MDEQ Standard = 100 µg/L Naphthalene

Standard Source: MDEQ Circular DEQ-7 Numeric Groundwater Standards, October 2012

Bold Indicates detection above MDEQ standard

* Indicates NAPL sheen, droplets, or greater accumulations may be present in well based on NAPL monitoring since 2014

- Groundwater Elevation Contour for Deep Subunit of the Upper Aquifer, July/August 2016 (feet amsl)
- Estimated area where NAPL may be present in the Upper Aquifer based on observation of oil or sheen in soil cuttings/core during drilling from 1983 to 2016.
- Estimated area of Upper Aquifer where groundwater naphthalene concentrations may exceed 100 µg/L, based on recent and historical data.

Kootenai River

Libby Creek

Fire Pond

Diversion Canal

Land Treatment Area

Expanded Land Farm Treatment Area

3044.1 [<0.02]
6020.2 [<0.02]
6020.3 [<0.02]
6019.2 [<0.021]
6019.3 [<0.02]
6018.2 [<0.02]
6502.1 [0.081]
6014.2 [<0.024]
6014.3 [<0.11]
6015.2 [<0.13]
6015.3 [<0.23]
6013.2 [<0.02]
6013.3 [<0.02]
3048.1 [<0.02]
3048.2 [<0.02]
6016.2 [<0.21]
6016.3 [1.6]
6012.2 [<0.02]
6012.3 [<0.023]
3018.1 [3.1]
3051.1 [5.1]
3002.2 [0.02]
3043.2 [<0.047]
6001.1 [<0.18]
6017.2 [<0.47]
6017.3 [<0.32]
8006.1 [<0.024]
6011.2 [<1.2]
6011.3 [73]
9001.1 [0.34]
3009.1 [0.074]
3010.2 [75]
3062.2 [<0.028]
3062.3 [18]
3049.2 [<0.02]
3049.3 [<0.02]
3042.2 [2.6]
3063.2 [<0.069]
3063.3 [<0.26]
6010.2 [39]
6010.3 [<0.071]
3017.2 [610]*
3017.3 [2.2]*
3008.2 [12000]*
3061.2 [8200]*
3061.3 [3600]
3038.2 [3.5]
3041.2 [25]
9503.2 [59]
3039.2 [2800]*
8001.1 [0.34]
3005.3 [0.006]
3031.2 [2600]*
3016.1 [910]*
3029.1 [34000]*
3015.1 [180]
3011.2 [0.22]
3011.3 [0.72]
9500.1 [78]
3012.1 [80]*
3007.2 [3600]
3007.3 [2400]
3050.3 [<0.14]
3030.2 [8800]*
5512.2 [11000]
5512.3 [15000]*
5513.2 [3800]
5513.3 [2100]
9504.1 [110000]*
3013.2 [0.0064]
3055.2 [360]
3055.3 [14000]*
3052.2 [2.1]
3052.3 [790]*
3014.2 [0.0045]
3059.2 [7100]
3059.3 [9300]
3058.2 [8300]
3058.3 [21000]
3060.2 [10000]
3060.3 [7000]
3056.2 [2300]
3056.3 [20000]*
8002.1 [0.18]*
3054.2 [3600]
3054.3 [9000]*
3053.2 [3500]
3053.3 [4300]*
3057.2 [3400]
3057.3 [34000]*

2062 2064 2066 2068 2070 2072 2074 2076 2078 2080 2082 2084 2086 2088

Concentrations for samples analyzed by ALS are shown

amsl = above mean sea level
Vertical datum: NAVD 88

MDEQ = Montana Department of Environmental Quality

NAPL = non-aqueous phase liquid

RL = laboratory reporting limit

µg/L = micrograms per liter

Naphthalene Concentrations in the Upper Aquifer Middle/Deep Subunit 2016

2016 ANNUAL GROUNDWATER MONITORING REPORT FOR THE UPPER AND LOWER AQUIFER
LIBBY GROUNDWATER SITE, LIBBY, MONTANA

Job No.:	60443319
Designed By:	ARM
Drawn By:	JLC
Date:	2/20/2017

N W E S

0 500 Feet

Fig. 3-2B

M:\DCS\Projects\Secure\IP\GIS\2017 maps\2016 Annual Report\Fig4-01A GW Contours US 2016.mxd

AECOM

Kootenai River

Libby Creek

Fire Pond
[2101.8]

Diversion Canal

Land Treatment Area

Expanded
Land Farm
Treatment Area

2 (US Route 2)

- Existing Well Location
- [2075.4] Groundwater Elevation for Shallow Subunit of the Upper Aquifer July/August 2016 (feet amsl)

  The groundwater elevation for well 3039.1 was corrected to account for LNAPL in the well.
- Groundwater Elevation Contour for Shallow Subunit of the Upper Aquifer, July/August 2016 (feet amsl)

  amsl = above mean sea level
  Vertical datum: NAVD 88

2056 2058 2060 2062 2064 2066 2068 2070 2072 2074 2076 2078 2080 2082 2084 2086 2088 2090 2092 2094 2096 2098 2100 2102 2104

6501.1 [2055.8]
6500.1 [2060]
6020.1 [2062.3]
6019.1 [2064.9]
6018.1 [2066.7]
6003.1 [2067.8]
6014.1 [2067.8]
6015.1 [2068.7]
6002.1 [2068.7]
3094.1 [2067.1]
6013.1 [2071.9]
3047.1 [2071.1]
6503.1 [2072.7]
6016.1 [2072]
6012.1 [2074.6]
3002.1 [2074.9]
3043.1 [2074.8]
6017.1 [2075.7]
6011.1 [2076.2]
3010.1 [2076.1]
3049.1 [2080.8]
3062.1 [2077.9]
3042.1 [2076.9]
3063.1 [2079.6]
6010.1 [2076.7]
3038.1 [2081.7]
3017.1 [2078.4]
3008.1 [2079]
3041.1 [2079.2]
3061.1 [2084.9]
3039.1 [2083.9]
3025.1 [2089.9]
3031.1 [2086.1]
3005.1 [2092.5]
3003.1 [2083.6]
3005.2 [2092.3]
3003.2 [2083.5]
3026.1 [2086.2]
3011.1 [2093.1]
3032.1 [2092.4]
9501.1 [2092.4]
3007.1 [2088.6]
3040.1 [2085.2]
3030.1 [2089.4]
3050.2 [2085.3]
3050.1 [2085.3]
3006.1 [2096.1]
3006.2 [2096.1]
3006.3 [2095.8]
5512.1 [2094.4]
3055.1 [2097]
9509.1 [2098]
3052.1 [2096.3]
3013.1 [2090]
9506.1 [2097.2]
3053.1 [2096.6]
3057.1 [2096.4]
3035.1 [2092.3]
3014.1 [2090.3]
3027.1 [2090.9]
5513.1 [2099]
9511.1 [2098.6]
3059.1 [2098.7]
3058.1 [2099.1]
3060.1 [2098.7]
9510.1 [2098.3]
3056.1 [2096.9]
3054.1 [2097.1]
3021.1 [2099.7]
9508.1 [2097.7]
3037.1 [2099.3]
9505.1 [2095.6]
3036.1 [2096.6]
9507.1 [2096.9]
3033.1 [2093]
3028.1 [2095.2]
3034.1 [2096]
3045.1 [2103.8]
3046.1 [2102.9]

N W E S

0 500 Feet

Job No.:	60443319
Designed By:	ARM
Drawn By:	JLC
Date:	2/20/2017

Water Table Elevations for the Upper Aquifer Shallow Subunit (July/August 2016)

2016 ANNUAL GROUNDWATER MONITORING REPORT FOR THE
UPPER AND LOWER AQUIFER
LIBBY GROUNDWATER SITE, LIBBY, MONTANA

Fig. 4-1A

M:\DCS\Projects\Secure\IP\GIS\2017 maps\2016 Annual Report\Fig4-01B GW Contours UMUD 2016.mxd

AECOM

Kootenai River

Libby Creek

Fire Pond

Diversion Canal

Land Treatment Area

Expanded
Land Farm
Treatment Area

O Existing Well Location

[2075.4] Groundwater Elevation for Deep Subunit of the Upper Aquifer July/August 2016 (feet amsl)

Groundwater Elevation Contour for Deep Subunit of the Upper Aquifer, July/August 2016 (feet amsl)

amsl = above mean sea level
Vertical datum: NAVD 88

2062 2064 2066 2068 2070 2072 2074 2076 2078 2080 2082 2084 2086 2088

6020.3 [2062.2]
6019.3 [2064.3]
6018.2 [2066.6]
6014.3 [2068]
6015.3 [2068.8]
6013.3 [2071.4]
3048.2 [2070.8]
6016.3 [2072.2]
6012.3 [2074]
3051.1 [2074.1]
6017.3 [2075.6]
6011.3 [2075.9]
3009.1 [2075.9]
3010.2 [2076]
3049.3 [2080.4]
3062.3 [2077.3]
3063.3 [2078.1]
6010.3 [2076.6]
3038.2 [2078.4]
3017.3 [2078.1]
3008.2 [2078.1]
3061.3 [2078.6]
3061.2 [2079.4]
3039.2 [2079.2]
3015.1 [2087.4]
3016.1 [2080.4]
3029.1 [2081.7]
9500.1 [2092]
3012.1 [2080.9]
3050.3 [2080.1]
3030.2 [2082.8]
5512.3 [2081]
5513.3 [2077.6]
9511.2 [2070.1]
3013.2 [2089.2]
9509.2 [2075.2]
3055.3 [2074.5]
9506.3 [2079.3]
3052.3 [2076.7]
3014.2 [2084.1]
3059.3 [2078.6]
3058.3 [2079.1]
3060.3 [2081.3]
9510.2 [2078]
3056.3 [2074]
3054.3 [2078.1]
9508.2 [2080.8]
9505.3 [2075.1]
3053.3 [2080.2]
9507.2 [2082.8]
3057.3 [2079]

N W E S

0 500 Feet

Groundwater Elevations for the Upper Aquifer Middle/Deep Subunit (July/August 2016)	
2016 ANNUAL GROUNDWATER MONITORING REPORT FOR THE UPPER AND LOWER AQUIFER LIBBY GROUNDWATER SITE, LIBBY, MONTANA	Job No.: 60443319
	Designed By: ARM
	Drawn By: JLC
	Date: 2/20/2017

Fig. 4-1B

M:\DCS\Projects\Secure\IP\GIS\2017 maps\2016 Annual Report\Fig4-02 GW Contours LA 2016.mxd

AECOM

Existing Well Location

[2075.4] Groundwater Elevation for the Lower Aquifer July/August 2016 (feet amsl)

Groundwater Elevation Contour for the Lower Aquifer, July/August 2016 (feet amsl)

amsl = above mean sea level
Vertical datum: NAVD 88

6501.2 [2055.5]
6500.2 [2058.7]
6500.3 [2058.7]
3044.2 [2059.4]
3044.3 [2058.9]
6502.2 [2066.5]
6502.3 [2066]
6003.2 [2067.8]
6003.3 [2068.6]
6002.2 [2068.7]
6002.3 [2069.3]
3047.2 [2070.7]
3047.3 [2070.8]
6503.2 [2072.5]
6503.3 [2072.4]
6007.1 [2072.2]
6009.1 [2072.2]
3018.2 [2073.9]
3018.3 [2073.9]
8004.1 [2074.9]
8004.2 [2074.3]
6001.2 [2073.7]
3015.2 [2079.1]
3013.3 [2081.1]

2056 2058 2060 2062 2064 2066 2068 2070 2072 2074 2076 2078 2080

Kootenai River
Libby Creek
Fire Pond
Diversion Canal
Land Treatment Area
Expanded Land Farm Treatment Area
2

N W E S

0 500 Feet

Groundwater Elevations for the Lower Aquifer (July/August 2016)

2016 ANNUAL GROUNDWATER MONITORING REPORT FOR THE UPPER AND LOWER AQUIFER
LIBBY GROUNDWATER SITE, LIBBY, MONTANA

Job No.:	60443319
Designed By:	ARM
Drawn By:	JLC
Date:	2/20/2017

Fig. 4-2

APPENDIX A

SAMPLING EVENTS – FIELD SAMPLING SHEETS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3002.2	Facility #: 226-00-299	Date: 6-1-16	
SAMPLE #: GW-1681		Location: Libby Mt.	
SAMPLE TIME: 1442	Project Name: FFS-Select Well Sampling	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mil Site	Inst. Calibration Date: 6-1-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: Overcast, Calm, 74°f			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	18.18'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	34.5'	Groundwater Surface Elevation:	
Water Column (Feet):	16.08'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	2.6 / 9.8 L.	Other Remarks:	Purge & Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	3.3 / 12.4		Purge was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1410									PURGE START
1425	10.0L	11.89	7.18	285	.26	~53			
1438	11.2L.	11.81	7.30	285	.26	~54			
1441	12.4L.	11.81	7.30	285	.26	~57			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1681	PCP/PAH-8040	1-1 Liter Amber	LOSL
	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 ml Amber	ALS
	Tot. Arsenic	1-500 ml Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3003.1	Facility #: 226-00-299	Date: 5-31-16	
SAMPLE #: GW-1682		Location: Libby Mt.	
SAMPLE TIME: 1648	Project Name: FFS-Select Well Sampling	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mil Site	Inst. Calibration Date: 5-31-16	
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	Clear, Calm, 72°F		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	21.52'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	23.5'	Groundwater Surface Elevation:	
Water Column (Feet):	1.98'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	.3 / 1.2 L	Other Remarks:	Purge & Sample at 450 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	1.2 / 4.54 L		Purge was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1635									PURGE START
1640	2.0	11.13	6.33	421	.45	-65			
1643	3.2	11.11	6.34	421	.46	-66			
1646	4.4	11.11	6.37	421	.46	-68			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1682	PCP/PAH-8040	1-1 Liter Amber	LOSL
	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 ml Amber	ALS
	Tot. Arsenic	1-500 ml Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3005.2	Facility #: 226-00-299	Date: 6-1-16	
SAMPLE #: GW-1683		Location: Libby Mt.	
SAMPLE TIME: 1031	Project Name: FFS-Select Well Sampling	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mil Site	Inst. Calibration Date: 5-1-16	
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	Overcast, Calm, 53°F		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	12.81'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	20.0'	Groundwater Surface Elevation:	
Water Column (Feet):	7.19'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	1.2 / 4.5 L.	Other Remarks:	Purge + Sample @ 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	2.2 / 8.4 L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1010									PURGE START
1025	6.0 L.	12.70	6.86	068	7.02	65			
1028	7.2 L.	12.71	6.86	068	7.01	65			
1031	8.4 L.	12.76	6.86	068	6.99	65			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1683	PCP/PAH-8040	3-1 Liter Amber	LOSL-Sample, MS/MSD
	PAH-8270sim	3-1 Liter Amber	ALS-Sample, MS/MSD
	PCP-8151	2-40 ml Amber	ALS-Sample, MS/MSD
	Tot. Arsenic	1-500 ml Plastic/HNO3	ALS-Field Duplicate
FD-0075	PCP/PAH-8040	1-1 Liter Amber	LOSL-Field Duplicate
	PAH-8270sim	1-1 Liter Amber	ALS- Field Duplicate
	PCP-8151	1-40 ml Amber	ALS-Field Duplicate
	Tot. Arsenic	1-500 ml Plastic/HNO3	ALS-Field Duplicate

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3005.3	Facility #: 226-00-299	Date: 6-1-16	
SAMPLE #: GW-1684		Location: Libby Mt.	
SAMPLE TIME: 0953	Project Name: FFS-Select Well Sampling	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mil Site	Inst. Calibration Date: 6-1-16	
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	Overcast, calm, 51°F		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	13.51'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	41.0'	Groundwater Surface Elevation:	
Water Column (Feet):	27.49'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	4.5 / 17.02	Other Remarks:	Purge + Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	5.4 / 20.4 L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
0900									PURGE START
0945	18.06.	10.45	6.81	071	6.32	71			
0948	19.26.	10.50	6.82	072	6.23	69			
0951	20.46.	10.51	6.84	072	6.24	68			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1684	PCP/PAH-8040	1-1 Liter Amber	LOSL
	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 ml Amber	ALS
	Tot. Arsenic	1-500 ml Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3006.1	Facility #: 226-00-299	Date: 6-10-16	
SAMPLE #: GW-1685		Location: Libby Mt.	
SAMPLE TIME: 0855	Project Name: FFS-Select Well Sampling	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mil Site	Inst. Calibration Date: 6-10-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: Overcast, Calm 59°F			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	12.42'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	17.0'	Groundwater Surface Elevation:	
Water Column (Feet):	4.58'	Sheen/LNAPL/DNAPL present:	LNAPL / — Light Sheen
Casing Volume (Gallons):	.75/2.8 L.	Other Remarks:	Purge & Sample at 300 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	2.6/10.0L		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
0830									PURGE START
0840	3.0 L.		Drop(@.5 In Purge						
0855	10.0L.	No Drop Bits - Light Sheen							

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1685	PCP/PAH-8040	1-1 Liter Amber	LOSL
	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 ml Amber	ALS
	Tot. Arsenic	1-500 ml Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3007.1	Facility #: 226-00-299	Date: 5-31-16	
SAMPLE #: GW-1686		Location: Libby Mt.	
SAMPLE TIME: 1105	Project Name: FFS-Select Well Sampling	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mil Site	Inst. Calibration Date: 5-31-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: Clear, Calm, 56°F.			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	14.59'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	22.69'	Groundwater Surface Elevation:	
Water Column (Feet):	8.1'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	1.3 / 4.9 L.	Other Remarks:	Purge & Sample at 400ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	6.2 / 8.4 L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1042									PURGE START
1057	6.0 L.	11.15	6.48	249	.49	-99	-		
1100	7.2 L.	11.14	6.49	248	.47	-102			
1103	8.4 L.	11.14	6.52	248	.47	-103			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1686	PCP/PAH-8040	1-1 Liter Amber	LOSL
	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 ml Amber	ALS
	Tot. Arsenic	1-500 ml Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3007.3	Facility #: 226-00-299	Date: 5-31-16	
SAMPLE #: GW-1687		Location: Libby Mt.	
SAMPLE TIME: 1028	Project Name: FFS-Select Well Sampling	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mil Site	Inst. Calibration Date: 5-31-16	
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	Clear, Calm, 54°F		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	15.64'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	43.64'	Groundwater Surface Elevation:	
Water Column (Feet):	28.0'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	4.6 / 17.4 L	Other Remarks:	Purge + Sample @ 400 ml/m.
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	5.4 / 20.4 L.		Purge Water Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
0935									PURGE START
1020	18.0 L.	11.65	6.72	222	.92	-119			
1023	19.2 L	11.65	6.72	222	.94	-119			
1026	20.4 L.	11.61	6.71	223	.94	-119			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1687	PCP/PAH-8040	1-1 Liter Amber	LOSL
	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 ml Amber	ALS
	Tot. Arsenic	1-500 ml Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3008.1	Facility #: 226-00-299	Date: 6-8-16	
SAMPLE #: GW-1688		Location: Libby Mt.	
SAMPLE TIME: 1317	Project Name: FFS-Select Well Sampling	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mil Site	Inst. Calibration Date: 6-8-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: Overcast, Breeze, 76°F			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	21.91'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	30'	Groundwater Surface Elevation:	
Water Column (Feet):	8.09'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	1.3/ 4.9 L.	Other Remarks:	Purge & Sample @ 400ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	2.2 / 8.4 L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1255									PURGE START
1310	6.02.	11.89	4.68	202	.31	-28			
1313	7.22.	11.84	4.69	202	.33	-31			
1316	8.42.	11.84	4.71	202	.33	-32			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1688	PCP/PAH-8040	1-1 Liter Amber	LOSL
	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 ml Amber	ALS
	Tot. Arsenic	1-500 ml Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3008.2	Facility #: 226-00-299	Date: 6-8-16	
SAMPLE #: GW-1689		Location: Libby Mt.	
SAMPLE TIME: 1231	Project Name: FFS-Select Well Sampling	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mil Site	Inst. Calibration Date: 6-8-16	
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	Overcast, Breeze, 73°F		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter: 2"	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed) Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	22.55'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	73'	Groundwater Surface Elevation:	
Water Column (Feet):	50.45'	Sheen/LNAPL/DNAPL present:	Sheen / NAPL Droplets
Casing Volume (Gallons):	8.2 / 31.02	Other Remarks:	Purge & Sample @ 400 ml/m.
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	6.3 / 24.0 L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1130									PURGE START
1230	24.0L.	No Parameters Taken							
			Film on Purge With NAPL Droplets						
		Purged One Hour Then Sampled							

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1689	PCP/PAH-8040	1-1 Liter Amber	LOSL
	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 ml Amber	ALS
	Tot. Arsenic	1-500 ml Plastic/HNO3	ALS
FD-0077	All Analysis		Field Duplicate - LOSL ALS ALS ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3010.1	Facility #: 226-00-299	Date: 6-7-16	
SAMPLE #: GW-1690		Location: Libby Mt.	
SAMPLE TIME: 1324	Project Name: FFS-Select Well Sampling	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mil Site	Inst. Calibration Date: 6-1-16	
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	Overcast, Calm, 62°F		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	22.42'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	30.0'	Groundwater Surface Elevation:	
Water Column (Feet):	7.58'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	1.2 / 4.5 L.	Other Remarks:	Purge + Sample @ 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	2.2 / 8.4		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1300									PURGE START
1315	6.0 L.	12.12	7.11	226	.31	-143			
1318	7.2 L.	12.11	7.11	228	.31	-143			
1321	8.4 L.	12.18	7.11	228	.33	-143			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1690	PCP/PAH-8040	3-1 Liter Amber	LOSL-Sample, MS/MSD
	PAH-8270sim	3-1 Liter Amber	ALS-Sample, MS/MSD
	PCP-8151	2-40 ml Amber	ALS-Sample, MS/MSD
	Tot. Arsenic	1-500 ml Plastic/HNO3	ALS-Field Duplicate
FD-0076	PCP/PAH-8040	1-1 Liter Amber	LOSL-Field Duplicate
	PAH-8270sim	1-1 Liter Amber	ALS- Field Duplicate
	PCP-8151	1-40 ml Amber	ALS-Field Duplicate
	Tot. Arsenic	1-500 ml Plastic/HNO3	ALS-Field Duplicate

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3010.2	Facility #: 226-00-299	Date: 6-1-16	
SAMPLE #: GW-1691		Location: Libby Mt.	
SAMPLE TIME: 1242	Project Name: FFS-Select Well Sampling	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mil Site	Inst. Calibration Date: 6-1-16	
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	Overcast, calm, 58°F		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	22.69'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	60.0'	Groundwater Surface Elevation:	
Water Column (Feet):	37.31'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	6.1 / 23.0 L.	Other Remarks:	Purge & Sample at 400 ml/min
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	7.0 / 26.2 L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1135									PURGE START
1235	24.06 L.	12.34	7.61	260	.31	-172			
1238	25.2 L.	12.39	7.63	260	.32	-172			
1241	26.4 L.	12.42	7.63	260	.31	-171			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1691	PCP/PAH-8040	1-1 Liter Amber	LOSL
	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 ml Amber	ALS
	Tot. Arsenic	1-500 ml Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3013.2	Facility #: 226-00-299	Date: 5-31-16	
SAMPLE #: GW-1692		Location: Libby Mt.	
SAMPLE TIME: 1822	Project Name: FFS-Select Well Sampling	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mil Site	Inst. Calibration Date: 5-31-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: Clear, Cool, 72°F			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	19.13'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	71.0'	Groundwater Surface Elevation:	
Water Column (Feet):	51.87'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	8.5 / 32.16	Other Remarks:	Purge & Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	7.0 / 26.4		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1714									PURGE START
1814	24.01.	11.84	6.47	425	2.05	-3			
1817	25.22.	11.77	6.47	425	2.06	-2			
1820	26.42.	11.76	6.47	425	2.07	-2			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1692	PCP/PAH-8040	1-1 Liter Amber	LOSL
	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 ml Amber	ALS
	Tot. Arsenic	1-500 ml Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3014.1	Facility #: 226-00-299	Date: 5-31-16	
SAMPLE #: GW-1693		Location: Libby Mt.	
SAMPLE TIME: 0912	Project Name: FFS-Select Well Sampling	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mil Site	Inst. Calibration Date: 5-31-16	
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	Clear, Calm, 54°F		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	19.36'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	31.0'	Groundwater Surface Elevation:	
Water Column (Feet):	11.54'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	1.9/ 7.22	Other Remarks:	Purge & Sample at 400ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	2.8/ 10.4L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
0845									PURGE START
0855	8.0L.	9.97	5.92	448	3.42	118			
0905	9.2L.	9.99	5.95	448	3.42	115			
0911	10.4L.	9.99	5.96	448	3.42	114			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1693	PCP/PAH-8040	1-1 Liter Amber	LOSL
	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 ml Amber	ALS
	Tot. Arsenic	1-500 ml Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3014.2	Facility #: 226-00-299	Date: 5-31-16	
SAMPLE #: GW-1694		Location: Libby Mt.	
SAMPLE TIME: 0822	Project Name: FFS-Select Well Sampling	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mil Site	Inst. Calibration Date: 5-31-16	
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	Clear, Calm, 46°F		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	28.50'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	71.0'	Groundwater Surface Elevation:	
Water Column (Feet):	42.50'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	6.9 / 26.1 L.	Other Remarks:	Purge & Sample @ 300ml/m.
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	5.2 / 19.8L		Purge Was Collected.

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
0720	1.8L								PURGE START
0820	13.2L	10.79	6.23	459	4.13	91			
8023	13.96L	10.78	6.23	459	4.10	83			
0826	19.8L	10.81	6.24	459	4.09	82			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1694	PCP/PAH-8040	1-1 Liter Amber	LOSL
	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 ml Amber	ALS
	Tot. Arsenic	1-500 ml Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3025.1	Facility #: 226-00-299	Date: 6-10-16	
SAMPLE #: GW-1695		Location: Libby Mt.	
SAMPLE TIME: 1347	Project Name: FFS-Select Well Sampling	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mil Site	Inst. Calibration Date: 6-10-16	
Well Condition:	Good	If POOR - Explanation:	
Field Conditions/Weather:	Overcast, Breezy, 74°f		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
5"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	15.77'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	34.0'	Groundwater Surface Elevation:	
Water Column (Feet):	18.23'	Sheen/LNAPL/DNAPL present:	Lt. Sheen - Clear
Casing Volume (Gallons):		Other Remarks:	Purge & Sample at 400 ml/mn
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	7.0 / 26.4 L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1340									PURGE START
1340	24.0 L.	11.37	5.69	108	.29	-30			
1343	25.2 L.	11.29	5.71	108	.29	-34			
1346	26.4 L.	11.29	5.77	108	.29	-35			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1695	PCP/PAH-8040	1-1 Liter Amber	LOSL
	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 ml Amber	ALS
	Tot. Arsenic	1-500 ml Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3026.1	Facility #: 226-00-299	Date: 6-8-16	
SAMPLE #: GW1696		Location: Libby Mt.	
SAMPLE TIME: 1451	Project Name: FFS-Select Well Sampling	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mil Site	Inst. Calibration Date: 6-8-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: Overcast, Lt. Breeze, 82°F			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
5"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	17.52'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	33.0'	Groundwater Surface Elevation:	
Water Column (Feet):	15.48'	Sheen/LNAPL/DNAPL present:	Sheen Initially - Clear
Casing Volume (Gallons):		Other Remarks:	Purge & Sample at 400ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	70 / 26.4 L		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1345	24.04								PURGE START
1445	~~26.74~~	12.42	5.78	235	.36	-32			
1448	25.26	12.34	5.76	234	.34	-33			
1451	26.46	12.36	5.77	234	.34	-33			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW1696	PCP/PAH-8040	1-1 Liter Amber	LOSL
	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 ml Amber	ALS
	Tot. Arsenic	1-500 ml Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3030.1	Facility #: 226-00-299	Date: 6-8-16	
SAMPLE #: GW-1697		Location:	Libby Mt.
SAMPLE TIME: 1751	Project Name: FFS-Select Well Sampling	Field Pers./Comp.:	Dave Cosgriff & Randy Cummings - AEI
	Site: Libby Mil Site	Inst. Calibration Date: 6-8-16	

Well Condition: Good — If POOR - Explanation:

Field Conditions/Weather: Overcast, Calm 87°F

Equipment Decontamination: Dedicated Tubing

Casing Diameter: 2"

Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	19.31'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	33.0'	Groundwater Surface Elevation:	
Water Column (Feet):	13.69'	Sheen/LNAPL/DNAPL present:	Sheen, LNAPL
Casing Volume (Gallons):	2.2 / 8.3L.	Other Remarks:	Purge & Sample @ 400ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	2.6 / 10.0L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1725									PURGE START
1750	10.0L.	No Parameters Taken							
			Sheen On Purge Water						
				Purged One Vol. Then Sampled					

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1697	PCP/PAH-8040	1-1 Liter Amber	LOSL
	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 ml Amber	ALS
	Tot. Arsenic	1-500 ml Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3030.2	Facility #: 226-00-299	Date: 6-8-16	
SAMPLE #: GW-1698		Location: Libby Mt.	
SAMPLE TIME: 1701	Project Name: FFS-Select Well Sampling	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mil Site	Inst. Calibration Date: 6-8-16	
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	Overcast, Breeze, 86°F		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	26.61'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	52.0'	Groundwater Surface Elevation:	
Water Column (Feet):	25.39'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	4.1 / 15.5L.	Other Remarks:	Purge & Sample at 300 ml/m.
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	4.4 / 16.8L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1605									PURGE START
1655	15.0L	12.21	6.65	166	.55	-95			
1658	15.9L	12.34	6.66	166	.55	-95			
1701	16.8L.	12.29	6.66	166	.55	-95			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1698	PCP/PAH-8040	1-1 Liter Amber	LOSL
	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 ml Amber	ALS
	Tot. Arsenic	1-500 ml Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3031.1	Facility #: 226-00-299	Date: 6-10-16	
SAMPLE #: GW-1699		Location: Libby Mt.	
SAMPLE TIME: 1227	Project Name: FFS-Select Well Sampling	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mil Site	Inst. Calibration Date: 6-10-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: Overcast, Lt. Breeze, 72°F			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	16.16'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	31.0'	Groundwater Surface Elevation:	
Water Column (Feet):	14.84'	Sheen/LNAPL/DNAPL present:	Trace Sheen
Casing Volume (Gallons):	2.4/9.1 L.	Other Remarks:	Purge & Sample at 300 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	2.9 / 10.8 L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1150									PURGE START
1220	9.0 L.	11.55	4.96	181	.28	-9			
1223	9.9 L.	11.58	5.01	181	.18	-12			
1226	10.8 L.	11.49	5.00	180	.27	-13			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1699	PCP/PAH-8040	1-1 Liter Amber	LOSL
	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 ml Amber	ALS
	Tot. Arsenic	1-500 ml Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3038.1	Facility #: 226-00-299	Date: 5-31-16	
SAMPLE #: GW-1700		Location: Libby Mt.	
SAMPLE TIME: 1612	Project Name: FFS-Select Well Sampling	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mil Site	Inst. Calibration Date: 5-31-16	
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	Clear, Calm, 66°F		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	18.54'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	31.0'	Groundwater Surface Elevation:	
Water Column (Feet):	12.46'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	2.0 / 7.7 L.	Other Remarks:	Purge & Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	2.8 / 10.4 L.	Purge Gas Collected	

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1545									PURGE START
1605	8.0L	10.53	6.59	105	2.80	-10			
1608	9.2 L.	10.53	6.59	105	2.80	-8			
1611	10.4 L.	10.53	6.59	105	2.77	-8			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1700	PCP/PAH-8040	1-1 Liter Amber	LOSL
	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 ml Amber	ALS
	Tot. Arsenic	1-500 ml Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3038.2	Facility #: 226-00-299	Date: 5-31-16	
SAMPLE #: GW-1701		Location: Libby Mt.	
SAMPLE TIME: 1523	Project Name: FFS-Select Well Sampling	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mil Site	Inst. Calibration Date: 5-31-16	
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	Clear, Calm, 66°F		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter: 2"	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed) Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	21.47'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	67.0'	Groundwater Surface Elevation:	
Water Column (Feet):	45.53'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	7.41 / 28.02	Other Remarks:	Purge & Sample @ 400ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	7.0 / 26.4 L		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1475									PURGE START
1515	22.02	10.85	7.07	182	.35	-60			
1518	25.22	10.85	7.07	182	.35	-60			
1521	26.42	10.88	7.04	183	.34	-60			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1701	PCP/PAH-8040	1-1 Liter Amber	LOSL
	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 ml Amber	ALS
	Tot. Arsenic	1-500 ml Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3039.1	Facility #: 226-00-299	Date: 6-10-16	
SAMPLE #: GW-1702		Location: Libby Mt.	
SAMPLE TIME: 1107	Project Name: FFS-Select Well Sampling	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mil Site	Inst. Calibration Date: 6-10-16	
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	Overcast, Lt. Breezy, 71°F		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	24.92'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	30.0'	Groundwater Surface Elevation:	
Water Column (Feet):	5.08'	Sheen/LNAPL/DNAPL present:	Sheen
Casing Volume (Gallons):	.8 / 3.0 L.	Other Remarks:	Purge & Sample at 300 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	1.2 / 4.5 L		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1050									PURGE START
1105	4.5 L.	Sheen On Purge							
				No Parameters Taken					

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1702	PCP/PAH-8040	1-1 Liter Amber	LOSL
	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 ml Amber	ALS
	Tot. Arsenic	1-500 ml Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 8002.1	Facility #: 226-00-299	Date: 6-8-16	
SAMPLE #: GW-1703		Location: Libby Mt.	
SAMPLE TIME: 1058	Project Name: FFS-Select Well Sampling	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mil Site	Inst. Calibration Date: 6-8-16	
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	Overcast, Calm, 68°F		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
x 1"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	17.01'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	37.0'	Groundwater Surface Elevation:	
Water Column (Feet):	19.99	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	2.17 L.	Other Remarks:	Purge & Sample @ 400 ml/m.
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	2.8 / 10.42		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1030									PURGE START
1050	8.0 L.	9.29	4.30	132	.36	193			
1053	9.2 L.	9.30	4.31	132	.35	185			
1056	10.4 L.	9.30	4.30	132	.35	189			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1703	PCP/PAH-8040	1-1 Liter Amber	LOSL
	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 ml Amber	ALS
	Tot. Arsenic	1-500 ml Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 9500.1	Facility #: 226-00-299	Date: 5-31-11	
SAMPLE #: GW-1705		Location: Libby Mt.	
SAMPLE TIME: 1232	Project Name: FFS-Select Well Sampling	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mil Site	Inst. Calibration Date: 5-31-11	
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	Clear, Calm		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
4"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	13.83'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	65.0'	Groundwater Surface Elevation:	
Water Column (Feet):	51.17'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	33.4 / 126.3	Other Remarks:	Purge & Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	7.0 / 26.4		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1125									PURGE START
1225	24.02.	10.59	6.63	135	.57	-111			
1228	25.22.								
1231	26.42.	10.53	6.63	135	.62	-116			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1705	PCP/PAH-8040	1-1 Liter Amber	LOSL
	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 ml Amber	ALS
	Tot. Arsenic	1-500 ml Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 9501.1	Facility #: 226-00-299	Date: 5-31-11	
SAMPLE #: GW-1706		Location: Libby Mt.	
SAMPLE TIME: 1353 1255	Project Name: FFS-Select Well Sampling	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mil Site	Inst. Calibration Date: 5-31-11	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: Clear, Calm, 65°F.			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
4"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	13.59'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	38.0'	Groundwater Surface Elevation:	
Water Column (Feet):	24.41'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	15.9 / 60.1 L.	Other Remarks:	Purge & Sample @ 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	7.0 / 26.4 L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1245									PURGE START
1345	24.0L.	10.37	5.96	115	.64	-24			
1348	25.2L	10.36	5.97	115	.61	-25			
1351	26.4L.	10.36	5.96	115	.63	-34			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1706	PCP/PAH-8040	1-1 Liter Amber	LOSL
	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 ml Amber	ALS
	Tot. Arsenic	1-500 ml Plastic/HNO3	ALS

ARROWHEAD ENGINEERING

Water/NAPL Level Measurements

Date: 5/31 - 6/10, 2016

FSS - Select Well Sampling

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Monitoring Locations	Type	Measurement in Feet	Time	Comments
3002.2	Water Level	18.48'	1404	~~6/1~~ RJC 5/31
	LNAPL Level			
	DNAPL Thickness			
3003.1	Water Level	21.52'	1630	6/1
	LNAPL Level			
	DNAPL Thickness			
3005.2	Water Level	12.81'	0852	6/1
	LNAPL Level			
	DNAPL Thickness			
3005.3	Water Level	13.51'	0853	6/1
	LNAPL Level			
	DNAPL Thickness			
3006.1	Water Level	12.42'	0820	6/10
	LNAPL Level	12.41'		
	DNAPL Thickness			
3007.1	Water Level	14.59'	0930	5/31
	LNAPL Level			
	DNAPL Thickness			
3007.3	Water Level	13.83'	0931	5/31
	LNAPL Level			
	DNAPL Thickness			
3008.1	Water Level	21.91'	1122	6/8
	LNAPL Level			
	DNAPL Thickness			
3008.2	Water Level	22.55'	1123	6/8
	LNAPL Level			
	DNAPL Thickness			
3010.1	Water Level	22.42'	1120	5/31
	LNAPL Level			
	DNAPL Thickness			
3010.2	Water Level	22.69'	1121	5/31
	LNAPL Level			
	DNAPL Thickness			
3013.2	Water Level	19.13'	1210	5/31
	LNAPL Level			
	DNAPL Thickness			
3014.1	Water Level	19.46'	0710	5/31
	LNAPL Level			
	DNAPL Thickness			
3014.2	Water Level	28.30'	0711	5/31
	LNAPL Level			
	DNAPL Thickness			

---- = Not Measured

NP - Not Present (no odor, film or layer)

ARROWHEAD ENGINEERING

Water/NAPL Level Measurements

Date: 5/31 – 6/10, 2016

FSS - Select Well Sampling

Pg 2-2

Monitoring Locations	Type	Measurement in Feet	Time	Comments
3025.1	Water Level	15.77'	1231	6/10
	LNAPL Level	15.76'		
	DNAPL Thickness			
3026.1	Water Level	17.52'	1336	6/8
	LNAPL Level			
	DNAPL Thickness			
3030.1	Water Level	19.31'	1558	6/8
	LNAPL Level			
	DNAPL Thickness			
3030.2	Water Level	26.61'	1600	6/8
	LNAPL Level			
	DNAPL Thickness			
3031.1	Water Level	16.16'	1140	6/10
	LNAPL Level	16.07'		
	DNAPL Thickness			
3038.1	Water Level	18.54'	1407	5/31
	LNAPL Level			
	DNAPL Thickness			
3038.2	Water Level	21.47'	1408	5/31
	LNAPL Level			
	DNAPL Thickness			
3039.1	Water Level	24.92'	1045	6/10
	LNAPL Level	18.34'		
	DNAPL Thickness			
8002.1	Water Level	17.01'	1025	6/8
	LNAPL Level			
	DNAPL Thickness			
8005.1	Water Level	----		Not Taken Abandoned Well
	LNAPL Level			
	DNAPL Thickness			
9500.1	Water Level	13.83'	1120	5/31
	LNAPL Level			
	DNAPL Thickness			
9501.1	Water Level	13.59'	1121	5/31
	LNAPL Level			
	DNAPL Thickness			
	Water Level			
	LNAPL Level			
	DNAPL Thickness			
	Water Level			
	LNAPL Level			
	DNAPL Thickness			

---- = Not Measured

NP - Not Present (no odor, film or layer)

Multi-Meter Calibration Form*

Date: 5-31-16

Site Name: Libby Mill Site

IP Project No.: 226-00-299

Field Work Description: FFS - Select Well Sampling

Field Technician: Randy Cummings / David Cosgriff

Multi-Meter Make: YSI

Multi-Meter Model: 556 MPS S/N: 03D0605-AD

pH Calibration Information (2 point)

PH Standard #1: 7.00 Standard pH Units

PH Standard #2: 4.00 Standard pH Units

Calibrated Properly (Y/N): Y

Conductivity Calibration Information

Specific Conductivity Standard #1: 1,413 µmhos/cm

Meter Reading: 1.413

Specific Conductivity Standard #2: — µmhos/cm (if required)

Meter Reading: —

ORP Calibration Information

ORP Standard #1: 160.0 mvolts Meter Reading: 160.0 mvolts

DO Calibration Per Manufacturer Recommendation Completed (Y/N): Y

* - Note: All calibrations shall be completed following manufacturer recommendations.

Multi-Meter Calibration Form*

Date: ~~5-31-16~~ 6-1-16

Site Name: Libby Mill Site

IP Project No.: 226-00-299

Field Work Description: FFS - Select Well Sampling

Field Technician: Randy Cummings / David Cosgriff

Multi-Meter Make: YSI

Multi-Meter Model: 556 MPS S/N: 13D0605-AD

pH Calibration Information (2 point)

PH Standard #1: 7.00 Standard pH Units

PH Standard #2: 4.00 Standard pH Units

Calibrated Properly (Y/N): Y

Conductivity Calibration Information

Specific Conductivity Standard #1: 1,413 µmhos/cm

Meter Reading: 1413

Specific Conductivity Standard #2: — µmhos/cm (if required)

Meter Reading: —

ORP Calibration Information

ORP Standard #1: 100.0 mvolts Meter Reading: 100.0 mvolts

DO Calibration Per Manufacturer Recommendation Completed (Y/N): Y

* - Note: All calibrations shall be completed following manufacturer recommendations.

Multi-Meter Calibration Form*

Date: 6-8-16 ~~5-31-16~~

Site Name: Libby Mill Site

IP Project No.: 226-00-299

Field Work Description: FFS - Select Well Sampling

Field Technician: Randy Cummings / David Cosgrif

Multi-Meter Make: YSI

Multi-Meter Model: 556 MPS S/N: 13D0605-AD

pH Calibration Information (2 point)

PH Standard #1: 7.00 Standard pH Units

PH Standard #2: 4.00 Standard pH Units

Calibrated Properly (Y/N): Y

Conductivity Calibration Information

Specific Conductivity Standard #1: 1,413 µmhos/cm

Meter Reading: 1,413

Specific Conductivity Standard #2: — µmhos/cm (if required)

Meter Reading: —

ORP Calibration Information

ORP Standard #1: 100.0 mvolts Meter Reading: 100 mvolts

DO Calibration Per Manufacturer Recommendation Completed (Y/N): Y

* - Note: All calibrations shall be completed following manufacturer recommendations.

Multi-Meter Calibration Form*

Date: ~~5-31-16~~ 6-10-16

Site Name: Libby Mill Site

IP Project No.: 226-00-299

Field Work Description: FFS - Select Well Sampling

Field Technician: Randy Cummings / David Cosgr. ff

Multi-Meter Make: YSI

Multi-Meter Model: 556 MPS S/N: 0300605-AD

pH Calibration Information (2 point)

PH Standard #1: 7.00 Standard pH Units

PH Standard #2: 4.00 Standard pH Units

Calibrated Properly (Y/N): Y

Conductivity Calibration Information

Specific Conductivity Standard #1: 1,413 µmhos/cm

Meter Reading: 1.413

Specific Conductivity Standard #2: — µmhos/cm (if required)

Meter Reading: —

ORP Calibration Information

ORP Standard #1: 160.0 mvolts Meter Reading: 200 mvolts

DO Calibration Per Manufacturer Recommendation Completed (Y/N): Y

* - Note: All calibrations shall be completed following manufacturer recommendations.

CHAIN OF CUSTODY RECORD/SAMPLE ANALYSIS REQUEST FORM

Page ___ of ___

Facility Number/Project Name: 2.26-09-299 Libby GW Site - FFS Solvent Well Monitoring

Lab Contact: Mike Funk Office: ___

Ship to: LOSL

Lab Contact Phone: ___

Samplers: Randy Cummings / David Cosgriff

Company Name: Arrowhead Env. Inc.

INTERNATIONAL PAPER

Sample No.	Date	Time	Matrix	Analyses Requested: PRH PCP 8040	Extra Container	Archive	Remarks
GW-1687	5-31	1028	GW	X			
GW-1686	"	1105	"	X			
GW-1705	"	1232	"	X			
GW-1706	"	1353	"	X			
GW-1709	"	1612	"	X			
GW-1682	"	1648	"	X			
GW-1692	"	1823	"	X			
GW-1694	"	0822	"	X			
GW-1693	"	0912	"	X			
GW-1701	"	1523	"	X			

Matrix Code: GW - Groundwater SL - Soil SD - Sediment SW - Surface water

OTHER - Please identify codes ___

Priority: ☒ Normal ☐ Rush Rush time period ___

Shipped via: ☐ FedEx/UPS ☐ Courier Airbill Hand Del.

Condition of Samples Upon Receipt: ___

Custody Seal Intact: ☐ Yes ☐ No ☐ None

Relinquished by: [signature] Date/Time: 5-31-16 1900

Company: AEI

Received by: [signature] Date/Time: 5-31-16 1900

Company: ___

Relinquished by: ___ (Signature) Date/Time: ___

Company: ___

Received by: ___ (Signature) Date/Time: ___

Company: ___

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CHAIN OF CUSTODY RECORD/SAMPLE ANALYSIS REQUEST FORM

Page ___ of ___

Facility Number/Project Name: 226-09-299 Libby GW Site - FFS Select Well Monitoring

Lab Contact: Mike Funk Office: ___

Ship to: LOSL

Lab Contact Phone: ___

Samplers: Randy Cummings / David Cosgriff

Company Name: Arrowhead Env. Inc.

INTERNATIONAL PAPER

Sample No.	Date	Time	Matrix	Analyses Requested: PAH PCP 8040						Extra Container	Archive	Remarks
GW-1687	5-31	1028	GW	X								
GW-1686	"	1105	"	X								
GW-1705	"	1232	"	Y								
GW-1706	"	1353	"	Y								
GW-1709	"	1612	"	Y								
GW-1682	"	1648	"	X								
GW-1692	"	1822	"	X								
GW-1694	"	0822	"	X								
GW-1693	"	0912	"	X								
GW-1701	"	1523	"	Y								

Matrix Code: GW - Groundwater SL - Soil SD - Sediment SW - Surface water

OTHER - Please identify codes ___

Priority: ☒ Normal ☐ Rush Rush time period ___

Shipped via: ☐ FedEx/UPS ☐ Courier Airbill Hand Del.

Condition of Samples Upon Receipt: ___

Custody Seal Intact: ☐ Yes ☐ No ☐ None

Relinquished by: [signature] (Signature) Date/Time: 5-31-16 1900 Received by: ___ (Signature) Date/Time: ___

Company: AEI Company: ___

Relinquished by: ___ (Signature) Date/Time: ___ Received by: ___ (Signature) Date/Time: ___

Company: ___ Company: ___

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CHAIN OF CUSTODY RECORD/SAMPLE ANALYSIS REQUEST FORM

Page ___ of ___

Facility Number/Project Name: 226-00-299 Libby GW Site - FFS Select Well Monitoring

Lab Contact: Mike Funk Office: ___

Ship to: LOSL

Lab Contact Phone: ___

Samplers: Randy Cummings / David Cosgriff

Company Name: Arrowhead Env.

INTERNATIONAL PAPER

Sample No.	Date	Time	Matrix	Analyses Requested: PAH PCP RO40						Extra Container	Archive	Remarks
GW-1683	6-1	1031	GW	X						X		Sample, MS, MSD
GW-1684	"	0953	"	X								
GW-1691	"	1242	"	X								
GW-1690	"	1324	"	X						X		Sample, MS, MSD
FD-0076	"	"	"	X								
FD-0075	"	1031	"	X								
GW-1681	"	1442	"	X								

Matrix Code: GW - Groundwater SL - Soil SD - Sediment SW - Surface water

OTHER - Please identify codes ___

Priority: ☑ Normal ☐ Rush Rush time period ___

Shipped via: ☐ FedEx/UPS ☐ Courier Airbill Hand Del

Condition of Samples Upon Receipt: ___

Custody Seal Intact: ☐ Yes ☐ No ☐ None

Relinquished by: [signature] (Signature) Date/Time: 6-1-16 1530

Company: AEI

Received by: [signature] (Signature) Date/Time: 6/1/16 1530

Company: ___

Relinquished by: ___ (Signature) Date/Time: ___

Company: ___

Received by: ___ (Signature) Date/Time: ___

Company: ___

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CHAIN OF CUSTODY RECORD/SAMPLE ANALYSIS REQUEST FORM

Page ___ of ___

Facility Number/Project Name: 226-00-299 Libby GW Site - FFS Select Well Monitoring

Lab Contact: Mike Funk Office: ___

Ship to: LOSL

Lab Contact Phone: ___

Samplers: Randy Cummings / David Cosgriff

Company Name: Arrowhead Env.

INTERNATIONAL PAPER

Sample No.	Date	Time	Matrix	Analyses Requested: PAH PCP 8040						Extra Container	Archive	Remarks
GW-1683	6-1	1031	GW	X						X		Sample, MS, MSD
GW-1684	"	0957	"	X								
GW-1691	"	1242	"	X								
GW-1690	"	1324	"	X						X		Sample, MS, MSD
FD-0076	"	"	"	X								
FD-0075	"	1031	"	X								
GW-1681	"	1442	"	X								

Matrix Code: GW - Groundwater SL - Soil SD - Sediment SW - Surface water

OTHER - Please identify codes ___

Priority: ☑ Normal ☐ Rush Rush time period ___

Shipped via: ☐ FedEx/UPS ☐ Courier Airbill Hand Del.

Condition of Samples Upon Receipt: ___

Custody Seal Intact: ☐ Yes ☐ No ☐ None

Relinquished by: [signature] (Signature) Date/Time: 6-1-11 1530

Company: AEI

Received by: ___ (Signature) Date/Time: ___

Company: ___

Relinquished by: ___ (Signature) Date/Time: ___

Company: ___

Received by: ___ (Signature) Date/Time: ___

Company: ___

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Cooler #3

CHAIN OF CUSTODY RECORD/SAMPLE ANALYSIS REQUEST FORM

Page ___ of ___

Facility Number/Project Name: 226-00-299 Libby GW Site – FFS Select Well Sampling

Lab Contact: Chris Leafe Office: ___

Ship to: ALS-Environmental
1317 S. 13th Ave
Kelso, Wa. 98626

Lab Contact Phone: 360-577-7222

Samplers: Randy Cummings, David Cosgriff

Company Name: Arrow Head Env Inc.

INTERNATIONAL PAPER

Sample No.	Date	Time	Matrix	Analyses Requested: PAH 8270 SIM	PLP 8151	Tot. Arsenic				Extra Container	Archive	Remarks
GW-1705	5/31	1232	GW	X	X	X						
GW-1687	"	1028	"	X	X	X						
GW-1686	"	1105	"	X	X	X						
GW-1682	"	1648	"	X	X	X						
GW-1692	"	1822	"	X	X	X						
GW-1700	"	1613	"	X	X	X						
GW-1706	"	1353	"	X	X	X						

Att. & Inv.
Arrowhead Env
David Cosgriff
P.O. Box V 843
Libby, MT. 59923
406-293-1011

Matrix Code: GW - Groundwater SL - Soil SD - Sediment SW - Surface water
OTHER - Please identify codes ___

Priority: ☑ Normal ☐ Rush Rush time period ___

Shipped via: ☑ FedEx/UPS ☐ Courier Airbill 8092 3085 7730

Condition of Samples Upon Receipt: ___

Custody Seal Intact: ☐ Yes ☐ No ☐ None

Relinquished by: [signature] (Signature) Date/Time: 1240 6-2-16
Company: AET

Received by: ___ (Signature) Date/Time: ___
Company: ___

Relinquished by: ___ (Signature) Date/Time: ___
Company: ___

Received by: ___ (Signature) Date/Time: ___
Company: ___

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Cooler #2

CHAIN OF CUSTODY RECORD/SAMPLE ANALYSIS REQUEST FORM

Page ___ of ___

Facility Number/Project Name: 226-07-299 Libby GW Site / FFS Select Well Sampling

Lab Contact: Chris Leet Office: ___

Ship to: RJS Environmental
1317 S. 13th Ave
Kelso, Wa. 98626

Lab Contact Phone: 360-577-7222

Samplers: Randy Cummings - David Cosgriff

Company Name: Arrowhead Eng. Inc.

INTERNATIONAL PAPER

Sample No.	Date	Time	Matrix	PAH 8270 SIM	PCP 8151	Tot. Arsenic				Extra Container	Archive	Remarks
GW-1701	5/31	1523	GW	X	X	X						
GW-1681	6/1	1442	"	X	X	X						
GW-1690	"	~~1243~~ 1324	"	X	X	X				X		Sample, MS, MSD
FD-0076	"	"	"	X	X	X						
GW-1691	"	1242	"	X	X	X						

Rust + Inv.
Arrowhead Eng
P.O. Box 843
Libby, Mt 59923
406-293-1011

Matrix Code: GW - Groundwater SL - Soil SD - Sediment SW - Surface water
OTHER - Please identify codes ___

Priority: ☒ Normal ☐ Rush Rush time period ___

Shipped via: ☒ FedEx/UPS ☐ Courier Airbill 8792 9085 7720

Condition of Samples Upon Receipt: ___

Custody Seal Intact: ☐ Yes ☐ No ☐ None

Relinquished by: [signature] (Signature) Date/Time: 1300 6-2-16
Company: AET

Received by: ___ (Signature) Date/Time: ___
Company: ___

Relinquished by: ___ (Signature) Date/Time: ___
Company: ___

Received by: ___ (Signature) Date/Time: ___
Company: ___

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Cooler #1

CHAIN OF CUSTODY RECORD/SAMPLE ANALYSIS REQUEST FORM

Page ___ of ___

Facility Number/Project Name: 226-00-298 / Libby GW Site - FFS Select Well Sampling

Lab Contact: Chris Leaf Office: ___

Ship to: ALS Environmental
1317 S 13th Ave
Kelso, Wa 98626

Lab Contact Phone: 360-577-7222

Samplers: Randy Cummings, David Cosgriff

Company Name: Arrowhead Enc. Inc

INTERNATIONAL PAPER

Sample No.	Date	Time	Matrix	PAH 8270 SIM	PCP 8151	Tot Arsenic				Extra Container	Archive	Remarks
GW-1694	5/31	0822	GW	X	X	X						
GW-1693	5/31	0912	"	X	X	X						
GW-1684	6/1	0953	"	X	X	X						
GW-1683	6/1	1031	"	X	X	X				X		Sample, MS, MSD
FD-0075	"	"	"	X	X	X						

Inv. to Ref.
Arrowhead Enc. Inc.
David Cosgriff
P.O. Box 843
Libby, Mt. 59923
406-293-1011

Matrix Code: GW - Groundwater SL - Soil SD - Sediment SW - Surface water
OTHER - Please identify codes ___

Priority: ☒ Normal ☐ Rush Rush time period ___

Shipped via: ☒ FedEx/UPS ☐ Courier Airbill 8092-3095-7719

Condition of Samples Upon Receipt: ___

Custody Seal Intact: ☐ Yes ☐ No ☐ None

Relinquished by: RJC (Signature) AEI Date/Time: 1200 4-2-16 Received by: ___ (Signature) Date/Time: ___

Company: ___ Company: ___

Relinquished by: ___ (Signature) Date/Time: ___ Received by: ___ (Signature) Date/Time: ___

Company: ___ Company: ___

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CHAIN OF CUSTODY RECORD/SAMPLE ANALYSIS REQUEST FORM

Page ___ of ___

Facility Number/Project Name: 226-00-299 Libby Mill Site - FFS - Select Well Sampling

Lab Contact: Mike Funk Office: ___

Ship to: Libby On-Site Lab

Lab Contact Phone: ___

Samplers: Randy Cummings / David Cosgriff

Company Name: Hydrometrics Env

Analyses Requested

Sample No.	Date	Time	Matrix	PAH PCP 8040	Extra Container	Archive	Remarks
GW-1697	6-8	1751	GW	X			
GW-1698	"	1701	"	X			
GW-1696	"	1451	"	X			
GW-1688	"	1317	"	X			
GW-1689	"	1231	"	X			
GW-1703	"	1058	"	X			
FD-0077	"	1231	"	X			

INTERNATIONAL PAPER

Matrix Code: GW - Groundwater SL - Soil SD - Sediment SW - Surface water

OTHER - Please identify codes ___

Priority: ☑ Normal ☐ Rush Rush time period ___

Shipped via: ☐ FedEx/UPS ☐ Courier Airbill Hand Del.

Condition of Samples Upon Receipt: ___

Custody Seal Intact: ☐ Yes ☐ No ☐ None

Relinquished by: ___ (Signature) Date/Time: 6-8-16 1820 Received by: ___ (Signature) Date/Time: ___

Company: ___ Company: ___

Relinquished by: ___ (Signature) Date/Time: ___ Received by: ___ (Signature) Date/Time: ___

Company: ___ Company: ___

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Cooler # 2

CHAIN OF CUSTODY RECORD/SAMPLE ANALYSIS REQUEST FORM

Page ___ of ___

Facility Number/Project Name:
226-00-299 Libby Mill Site - FFS Select Well Sampling

Lab Contact: Chris Leaf Office: ___

Ship to: ALS Env. Serv.
1317 S. 13th Ave.
Kelso, Wa. 98626

Lab Contact Phone: 360-577-7222

Samplers: Randy Cummings / David Cosgriff

Company Name: Arrowhead Env.

INTERNATIONAL PAPER

Sample No.	Date	Time	Matrix	PAH 8270 SIM	PCP 8151	Tot. Arsenic				Extra Container	Archive	Remarks
GW-1698	6-8	1701	GW	X	X	X						
GW-1688	"	1317	"	X	X	X						
GW-1697	"	1751	"	X	X	X						
GW-1696	"	1451	"	X	X	X						
GW-1703	"	1058	"	X	X	X						
GW-1689	"	1231	"	X	X	X						
FD-0077	"	"	"	X	X	X						

Inv. to Rpt.
Arrowhead Env, Inc
David Cosgriff
P.O. Box. 843
Libby, MT. 59923
406-293-1011

Matrix Code: GW - Groundwater SL - Soil SD - Sediment SW - Surface water
OTHER - Please identify codes ___

Priority: [X] Normal [ ] Rush Rush time period ___

Shipped via: [ ] FedEx/UPS [ ] Courier [ ] Airbill 8492 3085 7752

Condition of Samples Upon Receipt: ___

Custody Seal Intact: [ ] Yes [ ] No [ ] None

Relinquished by: (Signature) Date/Time: 6-9-16 1200 Received by: (Signature) Date/Time: ___

Company: AEI Company: ___

Relinquished by: (Signature) Date/Time: ___ Received by: (Signature) Date/Time: ___

Company: ___ Company: ___

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CHAIN OF CUSTODY RECORD/SAMPLE ANALYSIS REQUEST FORM

Page ___ of ___

Facility Number/Project Name: 226-00-259 Libby Mill Site - FFS Select Well Sampling

Lab Contact: Mike Funk Office: ___

Ship to: Libby On-Site Lab

Lab Contact Phone: ___

Samplers: Randy Cummings

Company Name: Arrowhead Env.

INTERNATIONAL PAPER

Sample No.	Date	Time	Matrix	Analyses Requested: PAH PCP 8040						Extra Container	Archive	Remarks
GW-1685	6-10	0955	GW	X								
GW-1695	"	1347	"	X								
GW-1699	"	1227	"	X								
GW-1702	"	1107	"	X								

Matrix Code: GW - Groundwater SL - Soil SD - Sediment SW - Surface water

OTHER - Please identify codes ___

Priority: ☒ Normal ☐ Rush Rush time period ___

Shipped via: ☐ FedEx/UPS ☐ Courier Airbill Hand Del.

Condition of Samples Upon Receipt: ___

Custody Seal Intact: ☐ Yes ☐ No ☐ None

Relinquished by: [signature] (Signature) Date/Time: 6-10-16 1610 Received by: [signature] (Signature) Date/Time: 6/10/16 1610

Company: ___ Company: ___

Relinquished by: ___ (Signature) Date/Time: ___ Received by: ___ (Signature) Date/Time: ___

Company: ___ Company: ___

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CHAIN OF CUSTODY RECORD/SAMPLE ANALYSIS REQUEST FORM

Page ___ of ___

Facility Number/Project Name: 226-00-299 Libby Mill Site – FFS Select Well Sampling

Lab Contact: Attn Chris Latf Office: ___

Ship to: ALS Laboratories
1317 S 13th Ave
Kelso, WA. 98626

Lab Contact Phone: 360-577-7222

Samplers: Randy Cummings & Dave Cosgriff

Company Name: Arrowhead Inc.

INTERNATIONAL PAPER

Sample No.	Date	Time	Matrix	PAH 8270 SIM	PCP 8151	Tot. Arsenic				Extra Container	Archive	Remarks
GW-1702	6-10	1102	GW	X	X	X						
GW-1685	"	0855	"	X	X	X						
GW-1699	"	1227	"	X	X	X						
GW-1695	"	1347	"	X	X	X						

Bot 4 Inv:
Arrowhead Inc
David Cosgriff
8413 - P.O. Box
Libby MT. 59923
406-293-1011

Matrix Code: GW - Groundwater SL - Soil SD - Sediment SW - Surface water
OTHER - Please identify codes ___

Priority: ☑ Normal ☐ Rush Rush time period ___

Shipped via: ☑ FedEx/UPS ☐ Courier Airbill 8092-3085-7763

Condition of Samples Upon Receipt: ___

Custody Seal Intact: ☐ Yes ☐ No ☐ None

Relinquished by: ___ (Signature) Date/Time: 6-13-16 1230 Received by: ___ (Signature) Date/Time: ___

Company: ___ Company: ___

Relinquished by: ___ (Signature) Date/Time: ___ Received by: ___ (Signature) Date/Time: ___

Company: ___ Company: ___

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ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3005.1	**Facility #:** 226-00-299	**Date:** 7-9-16	
SAMPLE #: GW-1711		**Location:** Libby, Mt.	
SAMPLE TIME: 1321	**Project Name:** July, 2016 Well Monitoring	**Field Pers./Comp.:** Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mill Site	**Inst. Calibration Date:** 7-9-16	
Well Condition: Good		**If *POOR* - Explanation:**	
Field Conditions/Weather: 60°F, Calm, Overcast			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
1"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	9.97'	**Measuring Point Elev. (Feet):**	
Depth of Well (Feet):	10'	**Groundwater Surface Elevation:**	
Water Column (Feet):	.03	**Sheen/LNAPL/DNAPL present:**	None
Casing Volume (Gallons):		**Other Remarks:**	200 Purge+Sample@200ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	1.1 / 4.2 L.		Purge water collected.

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1300									PURGE START
1315	3.0 L.	16.78	6.88	79	3.62	-74			
1318	3.6 L.	16.77	6.87	79	3.72	-72			
1321	4.2 L.	16.73	6.87	79	3.73	-70			

Purging Equipment	Peristaltic Pump	**Sampling Equipment**	Same	**Sample Intake Depth**	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1711	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 mil Amber	ALS
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3003.2	Facility #: 226-00-299	Date: 7-9-16	
SAMPLE #: GW-1710		Location: Libby, Mt.	
SAMPLE TIME: 1505	Project Name: July, 2016 Well Monitoring	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mill Site	Inst. Calibration Date: 7-9-16	
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	65°F, Calm, Overcast		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	22.38'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	34'	Groundwater Surface Elevation:	
Water Column (Feet):	11.62'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	1.9/7.2L	Other Remarks:	Purge + Sample @ 200ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	2.2/8.4L	Purge was collected	

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1420									PURGE START
1456	7.2L	11.80	6.42	404	.52	25			
1459	7.8L	11.90	6.40	405	.49	25			
1502	8.4L	11.86	6.43	405	.48	28			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1710	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 mil Amber	ALS
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3006.2	Facility #: 226-00-299	Date: 7-9-16	
SAMPLE #: GW-1712		Location: Libby, Mt.	
SAMPLE TIME: 1555	Project Name: July, 2016 Well Monitoring	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mill Site	Inst. Calibration Date: 7-9-16	
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	65° F, Calm Overcast		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	15.38'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	25.5'	Groundwater Surface Elevation:	
Water Column (Feet):	10.12'	Sheen/LNAPL/DNAPL present:	Sheen / No Sheen
Casing Volume (Gallons):	1.6 / 6.0 L	Other Remarks:	Purge & Sample @ 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	3.2 / 12.0 L	Purge was collected	

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1520									PURGE START
1535	6.0	11.31	6.57	137	.44	-69			
1538	7.2	11.27	6.46	137	.42	-65			
1541	8.4	11.17	6.42	137	.42	-63			
1544	9.6	11.20	6.25	136	.41	-37			
1547	10.8	11.20	6.28	136	.40	-60			
1550	12.0	11.26	6.32	136	.40	-63			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1712	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 mil Amber	ALS
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3006.3	Facility #: 226-00-299	Date: 7-9-16	
SAMPLE #: GW-1713		Location: Libby, Mt.	
SAMPLE TIME: 1652	Project Name: July, 2016 Well Monitoring	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mill Site	Inst. Calibration Date: 7-9-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: 68° F, Calm, Overcast			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	13.47'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	32'	Groundwater Surface Elevation:	
Water Column (Feet):	18.53'	Sheen/LNAPL/DNAPL present:	Oil Droplets / Clear
Casing Volume (Gallons):	3.0 / 11.3L	Other Remarks:	Purge & Sample @ 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	5.4 / 20.4L	Purge WQ collected	

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1600									PURGE START
1630	12.0L	11.03	6.47	141	.39	-50			
1633	13.2L	11.10	5.31	141	.34	-5			
1636	14.4L	11.06	5.70	141	.32	-29			
1639	15.6L	10.90	5.91	141	.31	-41			
1642	16.8L	10.88	5.91	141	.30	-45			
1645	18.0L	10.92	6.12	140	.28	-59			
1648	19.2L	10.74	6.21	140	.29	-64			
1651	20.4L	10.72	6.15	139	.29	-60			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1713	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 mil Amber	ALS
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3037.1	Facility #: 226-00-299	Date: 7-9-16	
SAMPLE #: GW-1718		Location: Libby, Mt.	
SAMPLE TIME: 1731	Project Name: July, 2016 Well Monitoring	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mill Site	Inst. Calibration Date: 7-9-16	
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	70°F, Calm, Light+ Overcast		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	11.85'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	25'	Groundwater Surface Elevation:	
Water Column (Feet):	13.15'	Sheen/LNAPL/DNAPL present:	
Casing Volume (Gallons):	2.179 / 2 = 7.9L	Other Remarks:	Purge + Sample @ 400ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	2.8 / 10.4L		Purge was collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1705									PURGE START
1725	8.0L	11.09	6.15	341	.51	-7			
1728	9.2L	11.04	6.17	341	.48	-5			
1731	10.4L	11.09	6.20	341	.60	-5			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1718	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 mil Amber	ALS
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3060.3	Facility #: 226-00-299	Date: 7-10-16	
SAMPLE #: GW-1745		Location: Libby, Mt.	
SAMPLE TIME: 1337	Project Name: July, 2016 Well Monitoring	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mill Site	Inst. Calibration Date: 7-10-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: 75°F, overcast, calm			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	26.44'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	70'	Groundwater Surface Elevation:	
Water Column (Feet):	43.56'	Sheen/LNAPL/DNAPL present:	Sheen
Casing Volume (Gallons):	7.1 / 26.84	Other Remarks:	Purge & Sample at 350 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	6.1 / 23.11.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1238									PURGE START
1330	21.01.	13.83	6.10	533	.47	-23			
1333	22.05.	13.82	6.09	533	.45	-24			
1336	23.16.	13.84	6.11	534	.45	-24			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1745	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 mil Amber	ALS
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3060.1	Facility #: 226-00-299	Date: 7-20-16	
SAMPLE #: GW-1743		Location: Libby, Mt.	
SAMPLE TIME: 1417	Project Name: July, 2016 Well Monitoring	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mill Site	Inst. Calibration Date: 7-10-16	
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	76°f, calm, overcast		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	11.27'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	30'	Groundwater Surface Elevation:	
Water Column (Feet):	18.73'	Sheen/LNAPL/DNAPL present:	Droplets
Casing Volume (Gallons):	3.1 / 11.72.	Other Remarks:	Purged & Sampled at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	3.2 / 12.0L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1345									PURGE START
1415	12.0L.	No Parameters Taken							
		Droplets In Purge							
		Sheen On Surface							

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1743	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 mil Amber	ALS
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3060.2	Facility #: 226-00-299	Date: 7-10-16	
SAMPLE #: GW-1744		Location: Libby, Mt.	
SAMPLE TIME: 1521	Project Name: July, 2016 Well Monitoring	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mill Site	Inst. Calibration Date: 7-10-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: 78°F, overcast, calm			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	26.66'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	50'	Groundwater Surface Elevation:	
Water Column (Feet):	23.34'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	3.8/ 14.4L.	Other Remarks:	Purge & Sample at ~~400~~ 350 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	4.3/ 16.1L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1435	14.9L.								PURGE START
1515	~~16.0L.~~	13.33	6.40	630	1.64	-68			
1518	15.05L.	13.36	6.41	632	1.71	-70			
1521	16.1L.	13.35	6.41	632	1.72	-71			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1744	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 mil Amber	ALS
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3007.2	Facility #: 226-00-299	Date: 7-9-16	
SAMPLE #: GW-1714		Location: Libby, Mt.	
SAMPLE TIME: 1112	Project Name: July, 2016 Well Monitoring	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mill Site	Inst. Calibration Date: 7-9-16	
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	61°f, calm, overcast		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	17.07'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	38'	Groundwater Surface Elevation:	
Water Column (Feet):	20.93'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	3.4/12.9 L	Other Remarks:	Purge + Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	4.34/16.4 L		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1030									PURGE START
1105	14.0 L	11.46	6.74	171	.40	-90			
1108	15.2 L	11.46	6.74	172	.40	-90			
1111	16.4 L	11.47	6.74	172	.40	-91			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1714	PAH-8270sim	3-1 Liter Amber	ALS-Sample/MS/MSD
	PCP-8151	2-40 mil Amber	ALS-Sample/MS/MSD
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS-Sample
FD-0080	PAH-8270sim	1-1 Liter Amber	ALS-Field Duplicate
	PCP-8151	1-40 mil Amber	ALS-Field Duplicate
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS-Field Duplicate

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3009.1	Facility #: 226-00-299	Date: 7-8-16	
SAMPLE #: GW-1715		Location: Libby, Mt.	
SAMPLE TIME: 1147	Project Name: July, 2016 Well Monitoring	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mill Site	Inst. Calibration Date: 7-8-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: 64°F, calm, overcast			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	23.01	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	82'	Groundwater Surface Elevation:	
Water Column (Feet):	58.99'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	9.6/36.3 L.	Other Remarks:	Purge & Sample @ 400 ml.p.m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	7.0/26.4 L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1040									PURGE START
1140	24.0 L.	12.05	6.54	442	2.67	59			
1143	25.2 L.	12.11	6.53	442	2.65	59			
1146	26.4 L.	12.02	6.54	442	~~6.82~~ 2.68	59			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1715	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 mil Amber	ALS
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 6500.1	Facility #: 226-00-299	Date: 7-8-16	
SAMPLE #: GW-1746		Location:	Libby, Mt.
SAMPLE TIME: 1247	Project Name: July, 2016 Well Monitoring	Field Pers./Comp.:	Dave Cosgriff & Randy Cummings - AEI
	Site: Libby Mill Site	Inst. Calibration Date:	7-8-16
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	66°F, calm, overcast		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	13.58'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	31'	Groundwater Surface Elevation:	
Water Column (Feet):	17.42'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	2.8/10.6 L.	Other Remarks:	Purge & Sample @ 400 ml/min
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	3.8/14.4 L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1210									PURGE START
1240	12.0L.	12.91	6.81	434	4.78	25.7			
1243	13.2L.	12.94	6.84	433	4.75	24.1			
1246	14.4L.	12.92	6.84	433	4.77	23.5			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1746	PAH-8270sim	3-1 Liter Amber	ALS-Sample/MS/MSD
	PCP-8151	2-40 mil Amber	ALS-Sample/MS/MSD
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS-Sample
FD-0083	PAH-8270sim	1-1 Liter Amber	ALS-Field Duplicate
	PCP-8151	1-40 mil Amber	ALS-Field Duplicate
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS-Field Duplicate

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 6501.1	Facility #: 226-00-299	Date: 7-8-16	
SAMPLE #: GW-1747		Location: Libby, Mt.	
SAMPLE TIME: 1332	Project Name: July, 2016 Well Monitoring	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mill Site	Inst. Calibration Date: 7-8-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: 63°F, calm, overcast			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	21.63'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	35'	Groundwater Surface Elevation:	
Water Column (Feet):	13.37'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	2.2/8.3 L.	Other Remarks:	Purged Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	2.8/10.4 L		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1304									PURGE START
1325	8.4 L.	11.98	7.13	416	5.96	45			
1328	9.2 L.	11.96	7.15	416	5.98	46			
1331	10.4 L.	11.98	7.16	416	6.00	46			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1747	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 mil Amber	ALS
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 6502.1	Facility #: 226-00-299	Date: 7-8-16	
SAMPLE #: GW-1748		Location: Libby, Mt.	
SAMPLE TIME: 1422	Project Name: July, 2016 Well Monitoring	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mill Site	Inst. Calibration Date: 7-8-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: 68°F, calm, Overcast			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
1"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	17.64'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	43.5'	Groundwater Surface Elevation:	
Water Column (Feet):	25.86'	Sheen/LNAPL/DNAPL present:	None.
Casing Volume (Gallons):	1.0 / 3.8 L.	Other Remarks:	Purge & Sample at 400ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	1.6 / 6.0 L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1400									PURGE START
1415	6.0L.	9.78	6.40	213	7.24	121			
1418	7.2L.	9.77	6.41	213	7.24	121			
1421	8.4L.	9.77	6.41	213	7.24	121			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1748	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 mil Amber	ALS
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 9001.1	Facility #: 226-00-299	Date: 7-8-16	
SAMPLE #: GW-1750		Location: Libby, Mt.	
SAMPLE TIME: 1552	Project Name: July, 2016 Well Monitoring	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mill Site	Inst. Calibration Date: 7-8-16	
Well Condition: Good		**If *POOR* - Explanation:**	
Field Conditions/Weather: 68°f, calm, overcast			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
10"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	20.83'	**Measuring Point Elev. (Feet):**	
Depth of Well (Feet):	40'	**Groundwater Surface Elevation:**	
Water Column (Feet):	19.7'	**Sheen/LNAPL/DNAPL present:**	None
Casing Volume (Gallons):	80.3 / 307.6 L.	**Other Remarks:**	Purge & Sample at 400ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	7.0 / 26.42.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1445									PURGE START
1545	24.0L.	12.08	7.06	255	.27	-71			
1547	25.3L.	12.05	7.06	255	.27	-71			
1551	26.4L.	12.03	7.06	254	.27	-71			

Purging Equipment	Peristaltic Pump	**Sampling Equipment**	Same	**Sample Intake Depth**	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1750	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 mil Amber	ALS
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #:	3011.3	Facility #:	226-00-299
SAMPLE #:	GW-1717		
SAMPLE TIME:	0757	Project Name:	July, 2016 Well Monitoring
		Site:	Libby Mill Site
Date:	7-9-16		
Location:	Libby, Mt.		
Field Pers./Comp.:	Dave Cosgriff & Randy Cummings - AEI		
Inst. Calibration Date:	7-9-16		
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	Calm Overcast, 49°F		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	12.21'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	39.5'	Groundwater Surface Elevation:	
Water Column (Feet):	26.29'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	4.3 / 16.3 L.	Other Remarks:	Purge & Sample @ 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	4.9 / 18.4 L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
0710									PURGE START
0750	16.06.	9.91	6.49	156	1.34	-90			
0753	17.22.	9.91	6.50	155	1.35	-90			
0756	18.4 L.	9.91	6.50	155	1.41	-90			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1717	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 mil Amber	ALS
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3011.2	Facility #: 226-00-299	Date: 7-9-16	
SAMPLE #: GW-1716		Location: Libby, Mt.	
SAMPLE TIME: 0847	Project Name: July, 2016 Well Monitoring	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mill Site	Inst. Calibration Date: 7-9-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: 51°F, overcast, calm			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	13.34'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	30'	Groundwater Surface Elevation:	
Water Column (Feet):	16.66'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	2.7/10.2 L	Other Remarks:	Purge + Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	3.5/13.2 L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
0819									PURGE START
0840	12.02	10.00	6.65	153	1.27	-100			
0843	13.22	10.01	6.65	155	1.26	-100			
0846	13.42	10.01	6.65	155	1.26	-100			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1716	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 mil Amber	ALS
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 8001.1	Facility #: 226-00-299	Date: 7-9-16	
SAMPLE #: GW-1749		Location: Libby, Mt.	
SAMPLE TIME: 0953	Project Name: July, 2016 Well Monitoring	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mill Site	Inst. Calibration Date: 7-9-16	
Well Condition: Good		If POOR - Explanation:	
Field Conditions/Weather: 54°F, calm, overcast			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
1"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	13.42'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	41'	Groundwater Surface Elevation:	
Water Column (Feet):	27.58'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	1.1/4.2L.	Other Remarks:	Purge & Sample @ 300ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	1.7/6.3L		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
0930									PURGE START
0945	4.5L.	10.44	6.72	156	.43	-70			
0948	5.4L.	10.43	6.72	156	.43	-70			
0951	6.3L.	10.44	6.72	155	.41	-70			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1749	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 mil Amber	ALS
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3058.3	Facility #: 226-00-299	Date: 7-20-16	
SAMPLE #: GW-1739		Location: Libby, Mt.	
SAMPLE TIME: 1657	Project Name: July, 2016 Well Monitoring	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mill Site	Inst. Calibration Date: 7-20-16	
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	72°F, Overcast, Rain, Calm		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	26.79'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	70'	Groundwater Surface Elevation:	
Water Column (Feet):	43.21'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	7.0/26.6L	Other Remarks:	Purge & Sample @ 400 ml/m.
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	7.0/26.4L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1550									PURGE START
1650	24.0L.	11.97	7.46	398	.31	-51			
1653	25.2L	11.98	7.45	398	.30	-49			
1656	26.4L.	12.03	7.44	398	.30	-49			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1739	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 mil Amber	ALS
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3058.2	Facility #: 226-00-299	Date: 7-10-16	
SAMPLE #: GW-1738		Location:	Libby, Mt.
SAMPLE TIME: 1802	Project Name: July, 2016 Well Monitoring	Field Pers./Comp.:	Dave Cosgriff & Randy Cummings - AEI
	Site: Libby Mill Site	Inst. Calibration Date:	7-10-16

Well Condition: Good — If *POOR* - Explanation:

Field Conditions/Weather:

Equipment Decontamination: Dedicated Tubing

Casing Diameter: 2"

Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	25.40'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	50'	Groundwater Surface Elevation:	
Water Column (Feet):	24.6'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	4.0/15.12.	Other Remarks:	Purge + Sample at 400 ml/m.
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	4.9/18.46.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1715									PURGE START
1755	16.0 L.	11.19	8.27	305	.32	-71			
1758	17.2 L.	11.20	8.26	305	.31	-70			
1801	18.4 L.	11.18	8.26	305	.31	-72			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1738	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 mil Amber	ALS
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3058.1	Facility #: 226-00-299	Date: 7-20-16	
SAMPLE #: GW-1737		Location: Libby, Mt.	
SAMPLE TIME: 1854	Project Name: July, 2016 Well Monitoring	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mill Site	Inst. Calibration Date: 7-20-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: 72°F, Overcast, Calm			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	9.97'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	30'	Groundwater Surface Elevation:	
Water Column (Feet):	20.03'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	3.3 / 12.56.	Other Remarks:	Purge + Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	4.0 / 15.2 L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1815									PURGE START
1847	12.8L.	11.08	7.10	12.5	.45	-133			
1850	14.0L.	11.05	7.09	12.5	.46	-132			
1853	15.2L.	11.04	7.09	124	.45	-133			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1737	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 mil Amber	ALS
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3059.3	Facility #: 226-00-299	Date: 7-11-16	
SAMPLE #: GW-1742		Location: 7-11-16	Libby, Mt.
SAMPLE TIME: 1102	Project Name: July, 2016 Well Monitoring	Field Pers./Comp.:	Dave Cosgriff & Randy Cummings - AEI
	Site: Libby Mill Site	Inst. Calibration Date:	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: 69°F, overcast, calm			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	26.76'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	71'	Groundwater Surface Elevation:	
Water Column (Feet):	44.24'	Sheen/LNAPL/DNAPL present:	Sheen - None
Casing Volume (Gallons):	7.2 / 27.2 L	Other Remarks:	Purge + Sample @ 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	2.0 / 26.4 L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
0955									PURGE START
1055	24.06 L.	12.05	6.55	492	.48	-68			
1058	25.22 L.	12.04	6.54	491	.47	-68			
1101	26.4 L.	12.04	6.55	492	.47	-69			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1742	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 mil Amber	ALS
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3059.2	Facility #: 226-00-299	Date: 7-11-16	
SAMPLE #: GW-1741		Location: Libby, Mt.	
SAMPLE TIME: 1207	Project Name: July, 2016 Well Monitoring	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mill Site	Inst. Calibration Date: 7-11-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: 64°F, overcast, calm			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	25.88'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	50'	Groundwater Surface Elevation:	
Water Column (Feet):	24.12'	Sheen/LNAPL/DNAPL present:	Sheen - None
Casing Volume (Gallons):	3.9/14.7	Other Remarks:	Purge & Sample Rt 350ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	4.4 / 16.8 L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1117									PURGE START
1159	14.76.	13.83	7.46	493	.54	-129			
1202	15.75L.	13.82	7.45	493	.51	-129			
1205	16.8L.	13.84	7.46	493	.55	-128			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1741	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 mil Amber	ALS
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3059.1	Facility #: 226-00-299	Date: 7-11-16	
SAMPLE #: GW-1740		Location:	Libby, Mt.
SAMPLE TIME: 1257	Project Name: July, 2016 Well Monitoring	Field Pers./Comp.:	Dave Cosgriff & Randy Cummings - AEI
	Site: Libby Mill Site	Inst. Calibration Date: 7-11-16	
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	68°F, Overcast, Lt Breeze		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	10.72'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	30'	Groundwater Surface Elevation:	
Water Column (Feet):	19.28'	Sheen/LNAPL/DNAPL present:	Sheen
Casing Volume (Gallons):	3.1/ 11.7 L.	Other Remarks:	Purge & Sample @ 200 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	/14.4 L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1230									PURGE START
1250	12.0 L.	13.66	6.76	193	.99	-106			
1253	13.2 L.	13.62	6.75	193	.97	-106			
1256	14.4 L	13.65	6.75	193	.99	-106			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1740	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 mil Amber	ALS
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS
FD-0082	PAH-8270sim	1-1 Liter Amber	ALS-Field Duplicate
	PCP-8151	1-40 mil Amber	ALS-Field Duplicate
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS-Field Duplicate

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3054.3	Facility #: 226-00-299	Date: 7-11-16	
SAMPLE #: GW-1727		Location: Libby, Mt.	
SAMPLE TIME: 1432	Project Name: July, 2016 Well Monitoring	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mill Site	Inst. Calibration Date: 7-11-16	

Well Condition: Good — If *POOR* - Explanation:

Field Conditions/Weather: 73° F, overcast, Lt. Breeze

Equipment Decontamination: Alconox Wash, Dedicated Tubing, D.I. Rinse, New Bladder

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	27.22'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	70'	Groundwater Surface Elevation:	
Water Column (Feet):	42.78'	Sheen/LNAPL/DNAPL present:	Sheen — ~~None~~ Sheen
Casing Volume (Gallons):	7.0/26.4L.	Other Remarks:	Purge & Sample @ 400 ml/m.
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	7.0/26.4L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1425									PURGE START
1425	24.0L	15.04	6.90	537	6.35	-63			
1428	25.2L.	15.05	6.92	537	6.30	-62			
1431	26.4L.	15.05	6.92	537	6.25	-62			

Purging Equipment	~~Peristaltic Pump~~ Bladder Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1727	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 mil Amber	ALS
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3054.2	Facility #: 226-00-299	Date: 7-21-16	
SAMPLE #: GW-1726		Location: Libby, Mt.	
SAMPLE TIME: 1532	Project Name: July, 2016 Well Monitoring	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mill Site	Inst. Calibration Date: 7-1-16	
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	73°f, overcast, lt. Breeze		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	19.66'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	47'	Groundwater Surface Elevation:	
Water Column (Feet):	27.34'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	4.5/17.0L.	Other Remarks:	Purge & Sample @ 400 ml/m.
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	5.2/19.6L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1443									PURGE START
1526	17.2L.	16.92	7.01	348	1.43	-109			
1529	18.4L.	16.87	7.01	348	1.41	-109			
1531	19.6L.	16.91	7.00	348	1.43	-109			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1726	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 mil Amber	ALS
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3054.1	Facility #: 226-00-299	Date: 7-12-16	
SAMPLE #: GW-1725		Location: Libby, Mt.	
SAMPLE TIME: 1621	Project Name: July, 2016 Well Monitoring	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mill Site	Inst. Calibration Date: 7-12-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: 74°F, overcast, Lt. Breeze			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	13.73'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	30'	Groundwater Surface Elevation:	
Water Column (Feet):	16.27'	Sheen/LNAPL/DNAPL present:	Droplets
Casing Volume (Gallons):	2.7/10.2L.	Other Remarks:	Purge & Sample at 400 ml/m -
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	3.2/12.0L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1550									PURGE START
1620	12.L.	No Parameters Taken							
	NAPL	Droplets In Purge.							

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1725	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 mil Amber	ALS
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3056.2	Facility #: 226-00-299	Date: 7-11-16	
SAMPLE #: GW-1732		Location: Libby, Mt.	
SAMPLE TIME: 1745	Project Name: July, 2016 Well Monitoring	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mill Site	Inst. Calibration Date: 7-11-16	
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	74°F, Overcast, Lt. Breeze		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	16.23'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	47'	Groundwater Surface Elevation:	
Water Column (Feet):	30.77'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	5.0 / 19.02	Other Remarks:	Purge & Sample @ 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	5.7 / 21.66.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1650									PURGE START
1738	19.26.	15.68	6.78	375	.49	-159			
1741	20.46.	15.69	6.77	374	.49	-159			
1744	21.66.	15.61	6.78	375	.49	-159			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1732	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 mil Amber	ALS
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3056.3	Facility #: 226-00-299	Date: 7-11-16	
SAMPLE #: GW-1733		Location: Libby, Mt.	
SAMPLE TIME: 1856	Project Name: July, 2016 Well Monitoring	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mill Site	Inst. Calibration Date: 7-11-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: 73°f, Overcast, Lt. Breeze			
Equipment Decontamination: Alconox Wash, DI Rinse, New Bladder			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	28.18'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	70'	Groundwater Surface Elevation:	
Water Column (Feet):	41.82'	Sheen/LNAPL/DNAPL present:	Droplets / Sheen
Casing Volume (Gallons):	6.8 / 25.71.	Other Remarks:	Purge & Sample @ ~400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	6.3 / 24.0L		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1755									PURGE START
1855	24.0	No Parameters Taken							
		NAPL Droplets In Purge							

Purging Equipment	Bladder Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1733	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 mil Amber	ALS
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS
RB-0012	PAH-8270sim	1-1 Liter Amber	ALS-Equip. Rinse
	PCP-8151	1-40 mil Amber	ALS-Equip. Rinse
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS-Equip. Rinse

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3056.1	Facility #: 226-00-299	Date: 7-11-16	
SAMPLE #: GW-1731		Location: Libby, Mt.	
SAMPLE TIME: 1941	Project Name: July, 2016 Well Monitoring	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mill Site	Inst. Calibration Date: 7-11-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: 73°F, overcast, Lt. Breeze			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	13.37'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	30'	Groundwater Surface Elevation:	
Water Column (Feet):	16.63'	Sheen/LNAPL/DNAPL present:	Droplets/Sheen
Casing Volume (Gallons):	2.7/10.2 L	Other Remarks:	Purge r Sample at 400ml/m.
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	3.2 / 12.0 L.		Purge was Contained

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1910									PURGE START
1940	12.0L	Parameters Not Taken							
		Small NAPL Droplets In Purge							
				Sheen On Surface					

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1731	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 mil Amber	ALS
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3053.3	Facility #: 226-00-299	Date: 7-12-16	
SAMPLE #: GW-1724		Location: Libby, Mt.	
SAMPLE TIME: 0812	Project Name: July, 2016 Well Monitoring	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mill Site	Inst. Calibration Date: 7-12-16	

Well Condition: (Good) — If *POOR* - Explanation:

Field Conditions/Weather: 49°F; overcast, calm

Equipment Decontamination: Alconox Wash, Dedicated Tubing, D.I Rinse, Low Bladder

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	27.51'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	70'	Groundwater Surface Elevation:	
Water Column (Feet):	42.49'	Sheen/LNAPL/DNAPL present:	None - Faint Sheen on Sample
Casing Volume (Gallons):	6.9 / 26.1 L.	Other Remarks:	~~Pre~~ Purge & Sample @ 400ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	7.0 / ~~14~~ 26.4 L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
0705 ~~0740~~									PURGE START
0802	24.02.	15.40	6.00	427	1.82	-28			
0803	25.26.	15.41	6.02	427	1.80	-28			
0811	26.4 L.	15.41	6.02	427	1.81	-29			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1724	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 mil Amber	ALS
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3053.2	Facility #: 226-00-299	Date: 7-12-16	
SAMPLE #: GW-1723		Location: Libby, Mt.	
SAMPLE TIME: 0922	Project Name: July, 2016 Well Monitoring	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mill Site	Inst. Calibration Date: 7-12-16	
Well Condition:	Good	**If *POOR* - Explanation:**	
Field Conditions/Weather:	54°F, Overcast, Calm		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	16.24'	**Measuring Point Elev. (Feet):**	
Depth of Well (Feet):	47'	**Groundwater Surface Elevation:**	
Water Column (Feet):	30.76'	**Sheen/LNAPL/DNAPL present:**	None
Casing Volume (Gallons):	5.0 / 19.9 L	**Other Remarks:**	Purge & Sample @ ~400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	5.9 / 22.4 L.		Purge Was Contained

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
0825									PURGE START
0915	20.06	15.82	6.69	354	1.213	-130			
0918	21.24	15.79	6.67	354	1.210	-131			
0921	22.41	15.81	6.69	354	1.42	-131			

Purging Equipment	Peristaltic Pump	**Sampling Equipment**	Same	**Sample Intake Depth**	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1723	PAH-8270sim	3-1 Liter Amber	ALS-Sample/MS/MSD
	PCP-8151	2-40 mil Amber	ALS-Sample/MS/MSD
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS-Sample
FD-0081	PAH-8270sim	1-1 Liter Amber	ALS-Field Duplicate
	PCP-8151	1-40 mil Amber	ALS-Field Duplicate
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS-Field Duplicate

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3053.1	Facility #: 226-00-299	Date: 7-12-16	
SAMPLE #: GW-1722		Location: Libby, Mt.	
SAMPLE TIME: 1001	Project Name: July, 2016 Well Monitoring	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mill Site	Inst. Calibration Date: 7-12-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: 59°F, Lt. Overcast, Calm			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	14.78'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	30'	Groundwater Surface Elevation:	
Water Column (Feet):	15.22'	Sheen/LNAPL/DNAPL present:	Small Droplets - Sheen
Casing Volume (Gallons):	2.5 / 9.42	Other Remarks:	Purge & Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	2.6 / 10.01		Purge Was Contained

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
0935									PURGE START
1000	10.01	No Parameters Taken							
		Sheen On Purge							

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1722	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 mil Amber	ALS
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3052.3	Facility #: 226-00-299	Date: 7-12-16	
SAMPLE #: GW-1721		Location: Libby, Mt.	
SAMPLE TIME: 1132	Project Name: July, 2016 Well Monitoring	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mill Site	Inst. Calibration Date: 7-12-16	
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	62°F, Lt, Overcast, Calm		
Equipment Decontamination:	Alconox Wash, DI Rinse, New Bladder		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	28.00'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	76'	Groundwater Surface Elevation:	
Water Column (Feet):	48.0'	Sheen/LNAPL/DNAPL present:	Droplets, Sheen
Casing Volume (Gallons):	7.8/ 29.64	Other Remarks:	Purge & Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	6.3/24.04		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1030									PURGE START
1130	24.04	No	Parameters	Taken					
				Shown On Surface					

Purging Equipment	Bladder Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1721	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 mil Amber	ALS
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3052.1	Facility #: 226-00-299	Date: 7-12-16	
SAMPLE #: GW-1719		Location: Libby, Mt.	
SAMPLE TIME: 1211	Project Name: July, 2016 Well Monitoring	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mill Site	Inst. Calibration Date: 7-12-16	
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	70 °F, Lt Overcast, Calm		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	14.74'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	30'	Groundwater Surface Elevation:	
Water Column (Feet):	15.26'	Sheen/LNAPL/DNAPL present:	Small Droplets - Surface
Casing Volume (Gallons):	2.5/9.5 L.	Other Remarks:	Purge & Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	2.6/10.0L		Purge Was Contained

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1145									PURGE START
1210	10.0L.	No Parameters Taken							
			Sheen On Surface						

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1719	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 mil Amber	ALS
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3052.2	Facility #: 226-00-299	Date: 7-12-16	
SAMPLE #: GW-1720		Location: Libby, Mt.	
SAMPLE TIME: 1327	Project Name: July, 2016 Well Monitoring	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mill Site	Inst. Calibration Date: 7-12-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: 73°F, Lt, Overcast, Calm			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	25.50'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	50'	Groundwater Surface Elevation:	
Water Column (Feet):	24.5'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	4.0 / 15.1 L.	Other Remarks:	Purge & Sample @ 350ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	4.7 / 17.85 L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1235									PURGE START
1320	15.25 L.	16.54	6.96	620	.89	-128			
1323	16.8 L.	16.53	6.96	620	.88	-128			
1326	17.85 L.	16.54	6.97	620	.87	-129			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1720	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 mil Amber	ALS
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3055.2	Facility #: 226-00-299	Date: 7-12-16	
SAMPLE #: GW-1729		Location: Libby, Mt.	
SAMPLE TIME: 1442	Project Name: July, 2016 Well Monitoring	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mill Site	Inst. Calibration Date: 7-12-16	

Well Condition: Good — If *POOR* - Explanation:

Field Conditions/Weather: 74°F, Lt Overcast, Calm

Equipment Decontamination: Dedicated Tubing

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	24.62'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	47'	Groundwater Surface Elevation:	
Water Column (Feet):	22.38'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	3.6 / 13.6 L.	Other Remarks:	Purge & Sample at 300 ml/mn
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	4.0 / 15.3 L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1350									PURGE START
1435	13.5 L.	20.32	7.12	553	1.73	-31			
1438	14.4 L.	19.96	7.10	553	1.33	-32			
1441	15.3 L.	19.97	7.11	553	1.33	-32			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1729	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 mil Amber	ALS
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3055.3	Facility #: 226-00-299	Date: 7-12-16	
SAMPLE #: GW-1730		Location: Libby, Mt.	
SAMPLE TIME: 1557	Project Name: July, 2016 Well Monitoring	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mill Site	Inst. Calibration Date: 7-12-16	
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	75°F, Lt. Overcast, Calm.		
Equipment Decontamination:	Alconox Wash, DI Rinse, New Bladder		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	28.2'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	70'	Groundwater Surface Elevation:	
Water Column (Feet):	41.8'	Sheen/LNAPL/DNAPL present:	NAPL Present
Casing Volume (Gallons):	6.8 / 25.8	Other Remarks:	Purge & Sample @ 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	6.3 / 24.04		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1455									PURGE START
1535	24.01	No Parameters Taken							

Purging Equipment	Bladder Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1730	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 mil Amber	ALS
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3055.1	Facility #: 226-00-299	Date: @ 7-12-16	
SAMPLE #: GW-1728		Location: Libby, Mt.	
SAMPLE TIME: 1642	Project Name: July, 2016 Well Monitoring	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mill Site	Inst. Calibration Date: 7-12-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: 76°F, 64 Overcast, Calm			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	13.85	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	30'	Groundwater Surface Elevation:	
Water Column (Feet):	16.15'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	2.6 / 9.8 L	Other Remarks:	Purge & Sample at 400ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	3.3 / 12.4 L.		Purge Was Contained

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1610									PURGE START
1635	10.0 L.	18.13	6.98	479	.45	-144			
1638	11.2 L.	18.10	6.98	478	.45	-144			
1641	12.4 L.	18.12	6.96	479	.48	-144			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1728	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 mil Amber	ALS
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3057.1	Facility #: 226-00-299	Date: 7-13-16	
SAMPLE #: GW-1734		Location: Libby, Mt.	
SAMPLE TIME: 1042	Project Name: July, 2016 Well Monitoring	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mill Site	Inst. Calibration Date: 7-13-16	
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	71°F, Lt. Overcast, Calm		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	15.10'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	30'	Groundwater Surface Elevation:	
Water Column (Feet):	14.9'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	2.4 / 9.1 L.	Other Remarks:	Purge & Sample @ 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	2.8 / 12.4 L.		Purge Was Contained

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1010									PURGE START
1035	10.2 L.	18.31	5.40	526	.31	-77			
1038	11.2 L.	18.20	5.42	524	.32	-78			
1041	12.2 L.	18.21	5.43	525	.30	-78			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1734	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 mil Amber	ALS
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3057.3	Facility #: 226-00-299	Date: 7-13-16	
SAMPLE #: GW-1736		Location: Libby, Mt.	
SAMPLE TIME: 1157	Project Name: July, 2016 Well Monitoring	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mill Site	Inst. Calibration Date: 7-13-16	
Well Condition:	(good)	If *POOR* - Explanation:	
Field Conditions/Weather:	71°F, Lt. Rain Overcast, Calm		
Equipment Decontamination:	Alconox Wash, DI Rinse, New Bladder		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	28.46'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	76'	Groundwater Surface Elevation:	
Water Column (Feet):	47.54'	Sheen/LNAPL/DNAPL present:	NAPL, Sheen
Casing Volume (Gallons):	7.7/ 29.1	Other Remarks:	Purge + Sample @ 100 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	6.3/ 24.02.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1055									PURGE START
1155	24.02.	No Parameters Taken							
		NAPL in Purge & Sheen On Surface							

Purging Equipment	Bladder Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1736	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 mil Amber	ALS
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3057.2	Facility #: 226-00-299	Date: 7-13-16	
SAMPLE #: GW-1735		Location: Libby, Mt.	
SAMPLE TIME: 1332	Project Name: July, 2016 Well Monitoring	Field Pers./Comp.: Dave Cosgriff & Randy Cummings - AEI	
	Site: Libby Mill Site	Inst. Calibration Date: 7-13-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: 72°F, Lt. Overcast, Calm			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	12.11'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	50'	Groundwater Surface Elevation:	
Water Column (Feet):	37.89'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	4.5/17.0 L.	Other Remarks:	Purge & Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	5.4/ 20.4 L.		Purge Was Contained

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1240									PURGE START
1325	18.02	18.32	5.89	490	.65	-95			
1328	19.2 L.	18.33	5.90	489	.64	-97			
1331	20.4 L.	18.33	5.92	489	.65	-97			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1735	PAH-8270sim	1-1 Liter Amber	ALS
	PCP-8151	1-40 mil Amber	ALS
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 9504.1	Facility #: 226-00-299	Date: 7-13-16	
SAMPLE #: ~~GW-1754~~ RE GW-1751		Location:	Libby, Mt.
SAMPLE TIME: 1457	Project Name: July, 2016 Well Monitoring	Field Pers./Comp.:	Dave Cosgriff & Randy Cummings - AEI
	Site: Libby Mill Site	Inst. Calibration Date:	7-13-16
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	74°F, Lt. Overcast, Lt. Breeze		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
6"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	14.18'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	75'	Groundwater Surface Elevation:	
Water Column (Feet):	60.82'	Sheen/LNAPL/DNAPL present:	NAPL, Sheen
Casing Volume (Gallons):	39.4 / 238 L.	Other Remarks:	Purge & Sample @ 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	6.3 / 24.0L.		Purge Was Contained

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1355									PURGE START
1455	24.0L	No Parameters Taken							
		NAPL in Purge & Sheen On Surface							

Purging Equipment	Peristaltic Pump	Sampling Equipment	Same	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
RE ~~GW-1754~~	PAH-8270sim	1-1 Liter Amber	ALS
GW-1751	PCP-8151	1-40 mil Amber	ALS
	Total Arsenic	1-500 mil Plastic w/ HNO3	ALS

Libby Groundwater Site - Libby, MT
July Select Well Sampling
Groundwater Sample Locations and Analysis.

Location	Sample No.	Sample Type	PCP/PAH-8040	PCP-8151		PAH-8270SIM		B&E-8260		Total Arsenic[2]	
3003.2	GW-1710	Primary		X		X				X	
3005.1	GW-1711	Primary		X		X				X	
3006.2	GW-1712	Primary		X		X				X	
3006.3	GW-1713	Primary		X		X				X	
3007.2	GW-1714	Primary/MS/MSD		X		X				X	
	FD-0080	Field Duplicate		X		X				X	
3009.1	GW-1715	Primary		X		X				X	
3011.2	GW-1716	Primary		X		X				X	
3011.3	GW-1717	Primary		X		X				X	
3037.1	GW-1718	Primary		X		X				X	
3052.1	GW-1719	Primary		X		X				X	
3052.2	GW-1720	Primary		X		X				X	
3052.3	GW-1721	Primary		X		X				X	
3053.1	GW-1722	Primary		X		X				X	
3053.2	GW-1723	Sample/MS/MSD		X		X				X	
	FD-0081	Field Duplicate		X		X				X	
3053.3	GW-1724	Primary		X		X				X	
3054.1	GW-1725	Primary		X		X				X	
3054.2	GW-1726	Primary		X		X				X	
3054.3	GW-1727	Primary		X		X				X	
3055.1	GW-1728	Primary		X		X				X	
3055.2	GW-1729	Primary		X		X				X	
3055.3	GW-1730	Primary		X		X				X	
3056.1	GW-1731	Primary		X		X				X	
3056.2	GW-1732	Primary		X		X				X	
3056.3	GW-1733	Primary		X		X				X	
	RB-0012	Equip. Rinse		X		X				X	
3057.1	GW-1734	Primary		X		X				X	

3057.2	GW-1735	Primary		X		X				X		
3057.3	GW-1736	Primary		X		X				X		
3058.1	GW-1737	Primary		X		X				X		
3058.2	GW-1738	Primary		X		X				X		
3058.3	GW-1739	Primary		X		X				X		
3059.1	GW-1740	Primary		X		X				X		
	FD-0082	Field Duplicate		X		X				X		
3059.2	GW-1741	Primary		X		X				X		
3059.3	GW-1742	Primary		X		X				X		
3060.1	GW-1743	Primary		X		X				X		
3060.2	GW-1744	Primary		X		X				X		
3060.3	GW-1745	Primary		X		X				X		
6500.1	GW-1746	Sample/MS/MSD		X		X				X		
	FD-0083	Field Duplicate		X		X				X		
6501.1	GW-1747	Primary		X		X				X		
6502.1	GW-1748	Primary		X		X				X		
8001.1	GW-1749	Primary		X		X				X		
9001.1	GW-1750	Primary		X		X				X		
9504.1	GW-1751	Primary		X		X				X		

QA Samples - Include Duplicate, Field Blank, Equipment Rinse (if needed), Trip Blanks (VOCs), and MS/MSDs
Well 3050 and 6017 Cluster to be purged and sampled with bladder pump due to depth to water table.

1 - PCP-8040M - Analyzed by Libby On-Site Laboratory

2 - No MS/MSD for Arsenic Analysis.

3 - No MS/MSD for B&E-8260 analysis for Well 8006.1.

Cooler #1

CHAIN OF CUSTODY RECORD/SAMPLE ANALYSIS REQUEST FORM

Page ___ of ___

Facility Number/Project Name: 226-30-299 Libby Mill Site - July Select Well Sampling

Lab Contact: Chris Leaf Office: ___

Ship to: ALS Env. 1317 S. 13th Ave. Kelso, WA. 98626

Lab Contact Phone: 360-577-7222

Samplers: R. Cummings / D. Cosgriff

Company Name: Arrowhead Eng. Inc.

INTERNATIONAL PAPER

Sample No.	Date	Time	Matrix	PAH 8270 S/M	PCP 8151	Tot. Arsenic				Extra Container	Archive	Remarks
GW-1744	7-8	1247	GW	X	X	X				X		Sample/MS/MSD
FD-0083	"	"	"	X	X	X						
GW-1715	"	1147	"	X	X	X						
GW-1750	"	1552	"	X	X	X						
GW-1748	"	1422	"	X	X	X						
												Rpt. & Inv. David Cosgriff Arrowhead Eng. Inc. P.O. Box 843 Libby, MT. 59923 406-293-1011

Matrix Code: GW - Groundwater SL - Soil SD - Sediment SW - Surface water

OTHER - Please identify codes ___

Priority: ☒ Normal ☐ Rush Rush time period ___

Shipped via: ☒ FedEx/UPS ☐ Courier Airbill 8092 3085 7800

Condition of Samples Upon Receipt: ___

Custody Seal Intact: ☐ Yes ☐ No ☐ None

Relinquished by: ___ (Signature) Date/Time: 7-11-16 1100 Received by: ___ (Signature) Date/Time: ___

Company: AEI Company: ___

Relinquished by: ___ (Signature) Date/Time: ___ Received by: ___ (Signature) Date/Time: ___

Company: ___ Company: ___

Distribution: White and Yellow Copies - Accompany Shipment; Pink Copy - Project File

Cooler #2

CHAIN OF CUSTODY RECORD/SAMPLE ANALYSIS REQUEST FORM

Page ___ of ___

Facility Number/Project Name: 22L-00-299 Libby Mill Site - July Select Well Sampling

Lab Contact: Chris Leek Office: ___

Ship to: ALS Env. 1317 S. 13th Ave Kelso, Wa 98626

Lab Contact Phone: 360-577-7222

Samplers: D. Cosgriff / R. Cummings

Company Name: Arrowhead Env. Inc.

INTERNATIONAL PAPER

Sample No.	Date	Time	Matrix	PAH 8270 SIM	PCP 8151	Tot Arsenic				Extra Container	Archive	Remarks
GW-1719	7-9	0953	GW	X	X	X						
GW-1717	"	0957	"	X	X	X						
GW-1713	"	1555	"	X	X	X						
FD-0080	"	1112	"	X	X	X						
GW-1714	"	"	"	X	X	X				X		Sample/MT/MSD
												Rpt & Inv. David Cosgriff P.O. Bx. 893 Libby, Mt. 59923 406-293-1011 Arrowhead Eng. Inc.

Matrix Code: GW - Groundwater SL - Soil SD - Sediment SW - Surface water

OTHER - Please identify codes ___

Priority: ☑ Normal ☐ Rush Rush time period ___

Shipped via: ☑ FedEx/UPS ☐ Courier Airbill 8892 3085 7796

Condition of Samples Upon Receipt: ___

Custody Seal Intact: ☐ Yes ☐ No ☐ None

Relinquished by: (Signature) Date/Time: 7-11-6 1100

Company: ___ Received by: (Signature) Date/Time: ___

Company: ___

Relinquished by: (Signature) Date/Time: ___ Received by: (Signature) Date/Time: ___

Company: ___ Company: ___

Distribution: White and Yellow Copies - Accompany Shipment; Pink Copy - Project File

Cooler #3

CHAIN OF CUSTODY RECORD/SAMPLE ANALYSIS REQUEST FORM

Page ___ of ___

Facility Number/Project Name: 220-00-299 Libby Mill Site - July Select Well Sampling

Lab Contact: Chain Leaf Office: ___

Ship to: ALS Env. 1317 S. 13th Ave. Kelso, Wa. 98626

Lab Contact Phone: 360-577-7222

Samplers: D. Cosgriff - R. Cummings

Company Name: Arrowhead Env

Analyses Requested

Sample No.	Date	Time	Matrix	PAH 8270 SIM	PCP 8151	Tot. Arsenic				Extra Container	Archive	Remarks
GW - 1716	7-9	0847	GW	X	X	X						
GW - 1711	"	1321	"	X	X	X						
GW - 1713	"	1652	"	X	X	X						
GW - 1718	"	1731	"	X	X	X						
GW - 1710	"	1505	"	X	X	X						
GW - 1747	7-8	1330	"	X	X	X						

Rpt + Inv.
David Cosgriff
Arrowhead Env.
P.O. Box 843
Libby, MT. 59923
406-293-1011

Matrix Code: GW - Groundwater SL - Soil SD - Sediment SW - Surface water
OTHER - Please identify codes ___

Priority: ☑ Normal ☐ Rush Rush time period ___

Shipped via: ☑ FedEx/UPS ☐ Courier Airbill 8092 2085 7785

Condition of Samples Upon Receipt: ___

Custody Seal Intact: ☐ Yes ☐ No ☐ None

Relinquished by: [signature] (Signature) Date/Time: 7-11-16 1100 Received by: ___ (Signature) Date/Time: ___

Company: ARI Company: ___

Relinquished by: ___ (Signature) Date/Time: ___ Received by: ___ (Signature) Date/Time: ___

Company: ___ Company: ___

Distribution: White and Yellow Copies - Accompany Shipment; Pink Copy - Project File

cooler #4

CHAIN OF CUSTODY RECORD/SAMPLE ANALYSIS REQUEST FORM

Page ___ of ___

Facility Number/Project Name: 226-00-299 Libby Mill Site - July Select Well Sampling

Lab Contact: Chris Leaf Office: ___

Ship to: ASL Env.
1317 S. 13th Ave.
Kelso, Wa. 98626

Lab Contact Phone: 360-577-7222

Samplers: D. Cosgriff - R. Cummings

Company Name: Arrowhead Eng. Inc.

INTERNATIONAL PAPER

Sample No.	Date	Time	Matrix	PAH 8270 SIM	PCP 8151	Tot. Arsenic				Extra Container	Archive	Remarks
GW-1739	7-10	1657	GW	x	x	x						
GW-1743	"	1417	"	x	x	x						
GW-1744	"	1521	"	x	x	x						
GW-1745	"	1337	"	x	x	x						
GW-1738	"	1802	"	x	x	x						
GW-1737	"	1854	"	x	x	x						
												Pat. & Inv.
												David Cosgriff
												Arrowhead Eng.
												P.O. Bx. 812
												Libby, Mt. 59923
												406-293-1011

Matrix Code: GW - Groundwater SL - Soil SD - Sediment SW - Surface water
OTHER - Please identify codes ___

Priority: ☒ Normal ☐ Rush Rush time period ___

Shipped via: ☒ FedEx/UPS ☐ Courier Airbill 8092 3085 7774

Condition of Samples Upon Receipt: ___

Custody Seal Intact: ☐ Yes ☐ No ☐ None

Relinquished by: [signature] (Signature) Date/Time: 7-11-16 1100 Received by: ___ (Signature) Date/Time: ___

Company: AEI Company: ___

Relinquished by: ___ (Signature) Date/Time: ___ Received by: ___ (Signature) Date/Time: ___

Company: ___ Company: ___

Distribution: White and Yellow Copies - Accompany Shipment; Pink Copy - Project File

Cooler #5

CHAIN OF CUSTODY RECORD/SAMPLE ANALYSIS REQUEST FORM

Page ___ of ___

Facility Number/Project Name: 226-00-299 Libby Mill Site - July Select Well Sampling

Lab Contact: Chris Leaf Office: ___

Ship to: ALS Env.
1317 S. 13th Ave
Kelso, Wa. 98626

Lab Contact Phone: 360-577-7222

Samplers: D. Cosgriff - R. Cummings

Company Name: Arrowhead Env. Inc.

INTERNATIONAL PAPER

Sample No.	Date	Time	Matrix	PAH 8270 SIM	PCP 8151	Tot. Arsenic				Extra Container	Archive	Remarks
GW-1733	7-11	1856	GW	X	X	X						
RB-0012	"	"	"	X	X	X						
GW-1727	"	1432	"	X	X	X						
GW-1732	"	1745	"	X	X	X						
GW-1730	7-12	1557	"	X	X	X						
GW-1728	"	1642	"	X	X	X						
GW-1729	"	1442	"	X	X	X						
												Rpt. & Inv. David Cosgriff Arrowhead Eng P.O. Bx. 843 Libby, Mt. 59923 406 293 1011

Matrix Code: GW - Groundwater SL - Soil SD - Sediment SW - Surface water
OTHER - Please identify codes ___

Priority: ☒ Normal ☐ Rush Rush time period ___

Shipped via: ☒ FedEx/UPS ☐ Courier ☐ Airbill 8092 3085 7822

Condition of Samples Upon Receipt: ___

Custody Seal Intact: ☐ Yes ☐ No ☐ None

Relinquished by: [signature] (Signature) Date/Time: 7-13-16 1100 Received by: ___ (Signature) Date/Time: ___

Company: AEI Company: ___

Relinquished by: ___ (Signature) Date/Time: ___ Received by: ___ (Signature) Date/Time: ___

Company: ___ Company: ___

Distribution: White and Yellow Copies - Accompany Shipment; Pink Copy - Project File

Cooler #6

CHAIN OF CUSTODY RECORD/SAMPLE ANALYSIS REQUEST FORM

Page ___ of ___

Facility Number/Project Name: 226-00-109 Libby Mill Site - July Select Well Sampling

Lab Contact: Chris Leaf Office: ___

Ship to: A+S Env. 1317 S. 13th Ave Kelso, WA 98626

Lab Contact Phone: 360-577-7222

Samplers: D. Cosgriff - R. Cummings

Company Name: Arrowhead Env.

INTERNATIONAL PAPER

Sample No.	Date	Time	Matrix	PAH 8270 SIM	PCP 8151	Tot. Arsenic				Extra Container	Archive	Remarks
GW-1741	7-11	1207	GW	X	X	X						
GW-1742	"	1102	"	X	X	X						
GW-1731	"	1941	"	X	X	X						
GW-1760	"	1257	"	X	X	X						
FD-0082	"	"	"	X	X	X						
GW-1726	"	1532	"	X	X	X						
GW-1725	"	1621	"	X	X	X						

Rpt. & Inv.
David Cosgriff
Arrowhead Env.
PO Box 843
Libby, MT 59923
406-293-1011

Matrix Code: GW - Groundwater SL - Soil SD - Sediment SW - Surface water
OTHER - Please identify codes ___

Priority: ☒ Normal ☐ Rush Rush time period ___

Shipped via: ☐ FedEx/UPS ☐ Courier Airbill 8791 3065 7811

Condition of Samples Upon Receipt: ___

Custody Seal Intact: ☐ Yes ☐ No ☐ None

Relinquished by: [signature] (Signature) Date/Time: 7-13-16 1124 Received by: ___ (Signature) Date/Time: ___

Company: AEI Company: ___

Relinquished by: ___ (Signature) Date/Time: ___ Received by: ___ (Signature) Date/Time: ___

Company: ___ Company: ___

Distribution: White and Yellow Copies - Accompany Shipment; Pink Copy - Project File

Cooler #7

CHAIN OF CUSTODY RECORD/SAMPLE ANALYSIS REQUEST FORM

Page ___ of ___

Facility Number/Project Name: 22J-00-299 Libby Mill Site - July Select Well Sampling

Lab Contact: Chris Lee Office: ___

Ship to: ALS - Env.
1317 S. 13th Ave.
Kelso, WA 98626

Lab Contact Phone: 360-577-7222

Samplers: D. Cosgriff - D. Cummings

Company Name: Arrowhead Env.

Analyses Requested

Sample No.	Date	Time	Matrix	PAH 8270 SIM	PCP 8151	Tot. Arsenic				Extra Container	Archive	Remarks
GW-1721	7-12	1132	GW	X	X	X						
GW-1724	"	0812	"	X	X	X						
GW-1722	"	1091	"	X	X	X						
FD-0081	"	0927	"	X	X	X						
GW-1723	"	"	"	X	X	X				X		Sample/MS/MSD

Rpt. & Inv.
David Cosgriff
Arrowhead Env.
P.O. Box 8430
Libby MT. 59923
406-293-1011

Matrix Code: GW - Groundwater SL - Soil SD - Sediment SW - Surface water
OTHER - Please identify codes ___

Priority: ☑ Normal ☐ Rush Rush time period ___

Shipped via: ☐ FedEx/UPS ☐ Courier Airbill 8282 3095 7544

Condition of Samples Upon Receipt: ___

Custody Seal Intact: ☐ Yes ☐ No ☐ None

Relinquished by: [signature] (Signature) Date/Time: 7-14-16 0900 Received by: ___ (Signature) Date/Time: ___

Company: ___ Company: ___

Relinquished by: ___ (Signature) Date/Time: ___ Received by: ___ (Signature) Date/Time: ___

Company: ___ Company: ___

Distribution: White and Yellow Copies - Accompany Shipment; Pink Copy - Project File

Cooler #8

CHAIN OF CUSTODY RECORD/SAMPLE ANALYSIS REQUEST FORM

Page ___ of ___

Facility Number/Project Name: 226-00-299 Libby Mill Site - July Select Well Sampling

Lab Contact: Chris Leaf Office: ___

Ship to: ALS - Env
1317 S. 13th Ave
Kelso, Wa. 98626

Lab Contact Phone: 360-~~[illegible]~~-577-7222

Samplers: D. Cosgriff - R. Cummings

Company Name: Arrowhead Env.

INTERNATIONAL PAPER

Sample No.	Date	Time	Matrix	PRH 8270 SIM	PCP 8151	Tot. Arsenic				Extra Container	Archive	Remarks
GW-1720	7-12	1327	GW	X	X	X						
GW-1719	"	1211	"	X	X	X						
GW-1736	7-13	1157	"	X	X	X						
GW-1735	"	1332	"	X	X	X						
GW-1734	"	1042	"	X	X	X						
GW-1754	"	1457	"	X	X	X						

Rpt. + Inv.
David Cosgriff
Arrowhead Env
P.O. Bx. 843
Libby, MT 59923
406 293 1011

Matrix Code: GW - Groundwater SL - Soil SD - Sediment SW - Surface water
OTHER - Please identify codes ___

Priority: ☒ Normal ☐ Rush Rush time period ___

Shipped via: ☒ FedEx/UPS ☐ Courier Airbill 8092 3085 7833

Condition of Samples Upon Receipt: ___

Custody Seal Intact: ☐ Yes ☐ No ☐ None

Relinquished by: [signature] (Signature) Date/Time: 7-14-16 0800 Received by: ___ (Signature) Date/Time: ___

Company: AEI Company: ___

Relinquished by: ___ (Signature) Date/Time: ___ Received by: ___ (Signature) Date/Time: ___

Company: ___ Company: ___

Distribution: White and Yellow Copies - Accompany Shipment; Pink Copy - Project File

ARROWHEAD ENGINEERING

Water/NAPL Level Measurements

Date: 7-5-16

Monitoring Locations	Type	Measurement in Feet	Time	Comments
3003.2	Water Level	22.38'	1206	
	LNAPL Level			
	DNAPL Thickness			
3005.1	Water Level	9.97'	1201	
	LNAPL Level			
	DNAPL Thickness			
3006.2	Water Level	15.38'	1501	
	LNAPL Level			
	DNAPL Thickness			
3006.3	Water Level	13.47'	1503	
	LNAPL Level			
	DNAPL Thickness			
3007.2	Water Level	17.07'	1238	
	LNAPL Level			
	DNAPL Thickness			
3009.1	Water Level	23.01'	1216	
	LNAPL Level			
	DNAPL Thickness			
3011.2	Water Level	13.34'	1439	
	LNAPL Level			
	DNAPL Thickness			
3011.3	Water Level	13.21'	1440	
	LNAPL Level			
	DNAPL Thickness			
3037.1	Water Level	11.85'	1256	
	LNAPL Level			
	DNAPL Thickness			
3052.1	Water Level	14.74'	1702	Product
	LNAPL Level			
	DNAPL Thickness			
3052.2	Water Level	25.50'	1302	
	LNAPL Level			
	DNAPL Thickness			
3052.3	Water Level	28.00'	1305	Product
	LNAPL Level			
	DNAPL Thickness			
3053.1	Water Level	14.78'	1307	Product
	LNAPL Level			
	DNAPL Thickness			
3053.2	Water Level	16.24'	1308	
	LNAPL Level			
	DNAPL Thickness			

---- = Not Measured

NP - Not Present (no odor, film or layer)

ARROWHEAD ENGINEERING

Water/NAPL Level Measurements

Date: 7-5-16

Monitoring Locations	Type	Measurement in Feet	Time	Comments
3053.3	Water Level	27.51'	1309	Product
	LNAPL Level			
	DNAPL Thickness			
3054.1	Water Level	13.73'	1312	Film
	LNAPL Level			
	DNAPL Thickness			
3054.2	Water Level	19.66'	1313	
	LNAPL Level			
	DNAPL Thickness			
3054.3	Water Level	27.72'	~~1311~~ 1314	Product
	LNAPL Level			
	DNAPL Thickness			
3055.1	Water Level	13.85'	1317	
	LNAPL Level			
	DNAPL Thickness			
3055.2	Water Level	24.62'	1318	
	LNAPL Level			
	DNAPL Thickness			
3055.3	Water Level	28.20'	1321	Film
	LNAPL Level			
	DNAPL Thickness			
3056.1	Water Level	13.37'	1344	Product
	LNAPL Level			
	DNAPL Thickness			
3056.2	Water Level	16.23'	1328	
	LNAPL Level			
	DNAPL Thickness			
3056.3	Water Level	28.18'	1331	Film
	LNAPL Level			
	DNAPL Thickness			
3057.1	Water Level	15.10'	1349	Film
	LNAPL Level			
	DNAPL Thickness			
3057.2	Water Level	22.11'	1353	Sheen
	LNAPL Level			
	DNAPL Thickness			
3057.3	Water Level	28.46'	1355	Product
	LNAPL Level			
	DNAPL Thickness			
3058.1	Water Level	9.97'	1247	
	LNAPL Level			
	DNAPL Thickness			

---- = Not Measured

NP - Not Present (no odor, film or layer)

ARROWHEAD ENGINEERING

Water/NAPL Level Measurements

Date: 7-5-16

Monitoring Locations	Type	Measurement in Feet	Time	Comments
3058.2	Water Level	25.40'	1248	
	LNAPL Level			
	DNAPL Thickness			
3058.3	Water Level	26.79'	1248	
	LNAPL Level			
	DNAPL Thickness			
3059.1	Water Level	10.72'	1243	
	LNAPL Level			
	DNAPL Thickness			
3059.2	Water Level	~~12.9~~ 25.88'	1241	
	LNAPL Level			
	DNAPL Thickness	~~26.76'~~	~~1244~~	
3059.3	Water Level	26.76'	1244	
	LNAPL Level			
	DNAPL Thickness			
3060.1	Water Level	11.27'	1251	
	LNAPL Level			
	DNAPL Thickness			
3060.2	Water Level	26.66	1252	
	LNAPL Level			
	DNAPL Thickness			
3060.3	Water Level	26.44'	1253	
	LNAPL Level			
	DNAPL Thickness			
6500.1	Water Level	13.58'	1221	
	LNAPL Level			
	DNAPL Thickness			
6501.1	Water Level	21.63'	1227	
	LNAPL Level			
	DNAPL Thickness			
6502.1	Water Level	17.64'	1422	
	LNAPL Level			
	DNAPL Thickness			
8001.1	Water Level	13.42'	1447	
	LNAPL Level			
	DNAPL Thickness			
9001.1	Water Level	20.83'	1214	
	LNAPL Level			
	DNAPL Thickness			
9502.1	Water Level			
	LNAPL Level			
	DNAPL Thickness			

---- = Not Measured

NP - Not Present (no odor, film or layer)

ARROWHEAD ENGINEERING

Water/NAPL Level Measurements

Date: 7-5-16

Monitoring Locations	Type	Measurement in Feet	Time	Comments
9503.1	Water Level			
	LNAPL Level			
	DNAPL Thickness			
9503.2	Water Level			
	LNAPL Level			
	DNAPL Thickness			
9504.1	Water Level	14.18'	1512	Active Inj. Well
	LNAPL Level			
	DNAPL Thickness			
	Water Level			
	LNAPL Level			
	DNAPL Thickness			
	Water Level			
	LNAPL Level			
	DNAPL Thickness			
	Water Level			
	LNAPL Level			
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	DNAPL Thickness			
	Water Level			
	LNAPL Level			
	DNAPL Thickness			
	Water Level			
	LNAPL Level			
	DNAPL Thickness			

---- = Not Measured

NP - Not Present (no odor, film or layer)

Multi-Meter Calibration Form*

Date: 7-8-16

Site Name: Libby Mill Site

IP Project No.: 226-00-199

Field Work Description: July Well Sampling

Field Technician: D. Cosgriff / R. Cummings

Multi-Meter Make: YSI

Multi-Meter Model: 556 MPS S/N: 03D0605

pH Calibration Information (2 point)

PH Standard #1: 7.00 Standard pH Units

PH Standard #2: 4.00 Standard pH Units

Calibrated Properly (Y/N): Y

Conductivity Calibration Information

Specific Conductivity Standard #1: 1.413 µmhos/cm

Meter Reading: 1.413

Specific Conductivity Standard #2: — µmhos/cm (if required)

Meter Reading: —

ORP Calibration Information

ORP Standard #1: 100.0 mvolts Meter Reading: 100 mvolts

DO Calibration Per Manufacturer Recommendation Completed (Y/N): Y

* - Note: All calibrations shall be completed following manufacturer recommendations.

Multi-Meter Calibration Form*

Date: 7-9-16

Site Name: Libby Mill Site

IP Project No.: 226-00-299

Field Work Description: July Well Sampling

Field Technician: D. Cosgriff / R. Cummings

Multi-Meter Make: YSI

Multi-Meter Model: 556 MPS S/N: 03D0605

pH Calibration Information (2 point)

PH Standard #1: 7.00 Standard pH Units

PH Standard #2: 4.00 Standard pH Units

Calibrated Properly (Y/N): Y

Conductivity Calibration Information

Specific Conductivity Standard #1: 1.413 µmhos/cm

Meter Reading: 1.413

Specific Conductivity Standard #2: — µmhos/cm (if required)

Meter Reading: —

ORP Calibration Information

ORP Standard #1: 100.0 mvolts Meter Reading: 100 mvolts

DO Calibration Per Manufacturer Recommendation Completed (Y/N): Y

* - Note: All calibrations shall be completed following manufacturer recommendations.

Multi-Meter Calibration Form*

Date: 7-10-06

Site Name: Libby Mill Site

IP Project No.: 226-00-299

Field Work Description: July Well Sampling

Field Technician: D. Cosgriff / R. Cummings

Multi-Meter Make: YSI

Multi-Meter Model: 556 MPS S/N: 03D0605

pH Calibration Information (2 point)

PH Standard #1: 7.00 Standard pH Units

PH Standard #2: 4.00 Standard pH Units

Calibrated Properly (Y/N): Y

Conductivity Calibration Information

Specific Conductivity Standard #1: 1.413 µmhos/cm

Meter Reading: 1.413

Specific Conductivity Standard #2: — µmhos/cm (if required)

Meter Reading: —

ORP Calibration Information

ORP Standard #1: 100.0 mvolts Meter Reading: 100 mvolts

DO Calibration Per Manufacturer Recommendation Completed (Y/N): Y

* - Note: All calibrations shall be completed following manufacturer recommendations.

Multi-Meter Calibration Form*

Date: 7-11-16

Site Name: Libby Mill Site

IP Project No.: 226-00-299

Field Work Description: July Well Sampling

Field Technician: D. Seigriff / R. Cummings

Multi-Meter Make: YSI

Multi-Meter Model: 556 MPS S/N: 03D0605

pH Calibration Information (2 point)

PH Standard #1: 7.00 Standard pH Units

PH Standard #2: 4.00 Standard pH Units

Calibrated Properly (Y/N): Y

Conductivity Calibration Information

Specific Conductivity Standard #1: 1.413 µmhos/cm

Meter Reading: 1.413

Specific Conductivity Standard #2: — µmhos/cm (if required)

Meter Reading: —

ORP Calibration Information

ORP Standard #1: 100.0 mvolts Meter Reading: 206 mvolts

DO Calibration Per Manufacturer Recommendation Completed (Y/N): Y

* - Note: All calibrations shall be completed following manufacturer recommendations.

Multi-Meter Calibration Form*

Date: 7-12-16

Site Name: Libby Mill Site

IP Project No.: 226-00-299

Field Work Description: July Well Sampling

Field Technician: D. Cosgriff / R. Cummings

Multi-Meter Make: YSI

Multi-Meter Model: 556 MPS S/N: 07D0605

pH Calibration Information (2 point)

PH Standard #1: 7.00 Standard pH Units

PH Standard #2: 4.00 Standard pH Units

Calibrated Properly (Y/N): Y

Conductivity Calibration Information

Specific Conductivity Standard #1: 1.413 µmhos/cm

Meter Reading: 1.413

Specific Conductivity Standard #2: — µmhos/cm (if required)

Meter Reading: —

ORP Calibration Information

ORP Standard #1: 100.0 mvolts Meter Reading: 160 mvolts

DO Calibration Per Manufacturer Recommendation Completed (Y/N): Y

* - Note: All calibrations shall be completed following manufacturer recommendations.

Multi-Meter Calibration Form*

Date: 7-13-16

Site Name: Libby Mill Site

IP Project No.: 226-00-299

Field Work Description: July Well Sampling

Field Technician: D. Cosgriff / R. Cummings

Multi-Meter Make: YSI

Multi-Meter Model: 556 MPS S/N: 07D0605

pH Calibration Information (2 point)

PH Standard #1: 7.00 Standard pH Units

PH Standard #2: 4.00 Standard pH Units

Calibrated Properly (Y/N): Y

Conductivity Calibration Information

Specific Conductivity Standard #1: 1.413 µmhos/cm

Meter Reading: 1.413

Specific Conductivity Standard #2: — µmhos/cm (if required)

Meter Reading: —

ORP Calibration Information

ORP Standard #1: 100.0 mvolts Meter Reading: 100 mvolts

DO Calibration Per Manufacturer Recommendation Completed (Y/N): Y

* - Note: All calibrations shall be completed following manufacturer recommendations.

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3002.1	Facility #: 226-00-299	Date: 9-5-16	
SAMPLE #: GW-1752	Project Name: Sept. 2016 Well Smplg	Location: Libby, MT	
SAMPLE TIME: 1507	Site: FFS-Rem. Support / Libby Mill Site	Field Pers./Comp.: David Cosgriff, Randy Cummings	
		Inst. Calibration Date: 9-5-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: 64°F, Raining			
Equipment Decontamination: Dedicated ~~Tubing~~			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	18.74'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	~~38~~ 31.5'	Groundwater Surface Elevation:	
Water Column (Feet):	12.76'	Sheen/LNAPL/DNAPL present:	
Casing Volume (Gallons):	2.08g / 7.86L	Other Remarks:	~~Purge/Sample @ 400 ml/m~~
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	2.8g / 10.4L		Purge collected.

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1440									PURGE START
1500	8.0L	15.52	6.34	187	4.61	216	1.43		
1503	9.2L	15.62	6.35	187	4.53	217			
1506	10.4L	15.65	6.35	187	4.49	219			

Purging Equipment	~~Bladder Pump~~ Peristaltic	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1752	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3011.1	Facility #: 226-00-299	Date: 9-3-16	
SAMPLE #: GW-1753	Sept. 2016 Well Smplg	Location: Libby, MT	
	Project Name: FFS-Rem. Support	Field Pers./Comp.: David Cosgriff, Randy Cummings	
SAMPLE TIME: 1852	Site: Libby Mill Site	Inst. Calibration Date: 9-3-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: 61°F, Lt Overcast Calm			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	10.09'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	~~40~~ 17.0'	Groundwater Surface Elevation:	
Water Column (Feet):	6.91'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	1.1 / 4.2 L	Other Remarks:	Purge & Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	1.2 / 8.4 L		

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1830									PURGE START
1845	6.0 L	15.31	6.80	155	.74	101	8.71		
1848	7.2 L	15.34	6.80	154	.72	102			
1851	8.4 L	15.37	6.80	154	.72	102			

Purging Equipment	~~Bladder Pump~~ Peristaltic	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1753	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #:	3012.1	Facility #:	226-00-299	Date:	9-24-16
SAMPLE #:	GW-1851		Sept. 2016 Well Smplg	Location:	Libby, MT
		Project Name:	FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME:	1419	Site:	Libby Mill Site	Inst. Calibration Date:	9-24-16
Well Condition:		Good		**If *POOR* - Explanation:**	
Field Conditions/Weather:		63°F, Clear, Calm			
Equipment Decontamination:		Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed) Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47
2"	

Depth to Water (Feet):	24.42'	**Measuring Point Elev. (Feet):**	
Depth of Well (Feet):	83.0'	**Groundwater Surface Elevation:**	
Water Column (Feet):	58.57'	**Sheen/LNAPL/DNAPL present:**	None
Casing Volume (Gallons):	9.5/35.9 L.	**Other Remarks:**	Purged & Sampled at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	7.0/26.4 L		Purge Was Continued

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1310									PURGE START
1419	24.02	13.27	6.79	133	1.66	-101	2.61		
1413	25.2 L	13.07	6.79	134	1.55	-102			
1416	26.4 L	13.03	6.79	134	1.49	-101			

Purging Equipment	Peristaltic Pump	**Sampling Equipment**	Dedicated Tubing	**Sample Intake Depth**	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1851	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1-250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3013.1	Facility #: 226-00-299	Date: 9-21-16	
SAMPLE #: GW-1755	Sept. 2016 Well Smplg	Location:	Libby, MT
	Project Name: FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME: 1657	Site: Libby Mill Site	Inst. Calibration Date: 9-21-16	
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	Overcast, Calm, 60°F		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	22.22'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	27.53' ~~135'~~	Groundwater Surface Elevation:	
Water Column (Feet):	5.31'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	.9/3.4 L.	Other Remarks:	Purge & Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	2.8/10.4 L		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1630									PURGE START
1650	8.0 L.	14.23	6.54	410	.98	31	2.13		
1653	9.2 L.	14.23	6.55	411	.98	32			
1656	10.4 L.	14.22	6.54	411	.96	32			

Purging Equipment	~~Bladder Pump~~ Peristaltic	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1755	PAH-8270sim	3 - 1 L. Amber	ALS-Sample/MS/MSD
	PCP-8151	2 - 40 ml. Amber	ALS-Sample/MS/MSD
	TOTAL ARSENIC	1 - 500 ml. Plastic/HNO3	ALS-Sample
FD-0085	PAH-8270sim	1 - 1 L. Amber	ALS-Field Duplicate
	PCP-8151	1 - 40 ml. Amber	ALS-Field Duplicate
	TOTAL ARSENIC	1 - 500 ml. Plastic/HNO3	ALS-Field Duplicate

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3015.1	Facility #: 226-00-299	Date: 9-3-16	
SAMPLE #: GW-1756	Sept. 2016 Well Smplg	Location: Libby, MT	
	Project Name: FFS-Rem. Support	Field Pers./Comp.: David Cosgriff, Randy Cummings	
SAMPLE TIME: 2137	Site: Libby Mill Site	Inst. Calibration Date: 9-3-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: 61°F, Lt. Overcast, Calm			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	19.19'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	71.0' ~~230'~~	Groundwater Surface Elevation:	
Water Column (Feet):	51.81'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	8.4 / 31.82.	Other Remarks:	Purge & Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	7.0 / 26.4 L		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
2030									PURGE START
2130	24.0 L	16.04	6.69	139	.63	-97	.38		
2133	25.2 L.	16.07	6.69	139	.62	-98			
2136	26.4 L.	16.07	6.69	139	.62	-98			

Purging Equipment	~~Bladder Pump~~ Peristaltic	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1756	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 150 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3016.1	Facility #: 226-00-299	Date: 09-20-16	
SAMPLE #: GW-1757	Project Name: Sept. 2016 Well Smplg	Location: Libby, MT	
SAMPLE TIME: 1842	Site: FFS-Rem. Support / Libby Mill Site	Field Pers./Comp.: David Cosgriff, Randy Cummings	
		Inst. Calibration Date: 09-20-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: Light Overcast, Breeze			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	25.18'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	~~330~~ 69.0'	Groundwater Surface Elevation:	
Water Column (Feet):	43.82'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	7.19 / 26.8 L	Other Remarks:	Purge & Sample @ 300ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	5.2 / 19.8 L		Purge Contained

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1735									PURGE START
1835	18.0L	16.46	6.93	149	2.03	-99	3.74		
1838	18.9L	16.35	6.94	149	1.93	-99			
1841	19.8L	16.36	6.94	148	1.94	-98			

Purging Equipment	~~Bladder Pump~~ Peristaltic	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1757	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3017.1	Facility #: 226-00-299	Date: 9-24-16	
SAMPLE #: GW-1758	Sept. 2016 Well Smplg	Location:	Libby, MT
	Project Name: FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME: 1742	Site: Libby Mill Site	Inst. Calibration Date:	9-24-16
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	Lt. Overcast, Breeze, 65°F		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	26.39'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	34.0' ~~78~~	Groundwater Surface Elevation:	
Water Column (Feet):	7.61'	Sheen/LNAPL/DNAPL present:	Sheen
Casing Volume (Gallons):	1.2 / 4.5 L	Other Remarks:	Purge & Sample at 400 ml/mv
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	2.2 / 8.4 L		Purge Was Contained

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1720									PURGE START
1735	6.0 L.	13.14	6.70	161	1.21	-120	1.03		Clear
1738	7.2 L.	13.16	6.79	161	1.18	-120			
1741	8.4 L.	13.13	6.70	161	1.11	-120			

Purging Equipment	~~Bladder Pump~~ Peristaltic	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1758	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3017.2	Facility #: 226-00-299	Date: 9-24-16	
SAMPLE #: GW-1759	Sept. 2016 Well Smplg	Location: Libby, MT	
	Project Name: FFS-Rem. Support	Field Pers./Comp.: David Cosgriff, Randy Cummings	
SAMPLE TIME: 1707	Site: Libby Mill Site	Inst. Calibration Date: 9-24-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: Lt. Overcast, Breeze, 67°F			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	25.78'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	52.0' ~~28~~	Groundwater Surface Elevation:	
Water Column (Feet):	26.22'	Sheen/LNAPL/DNAPL present:	Sheen
Casing Volume (Gallons):	4.3/ 16.3 L	Other Remarks:	Purge & Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	5.4/ 20.4L		Purge Was Contained

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1615									PURGE START
1700	18.92	12.27	6.67	162	1.18	-122	2.63		Clear
1703	19.22	12.24	6.67	162	1.03	-122			
1706	20.42	12.23	6.67	162	1.01	-122			

Purging Equipment	~~Bladder Pump~~ Peristaltic	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1759	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3017.3	Facility #: 226-00-299	Date: 9-24-16	
SAMPLE #: GW-1760	Sept. 2016 Well Smplg	Location:	Libby, MT
	Project Name: FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME: 1552	Site: Libby Mill Site	Inst. Calibration Date: 9-24-16	
Well Condition:		If *POOR* - Explanation:	
Field Conditions/Weather:	65°F, Lt. Overcast, Breezy		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	25.63'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	78'	Groundwater Surface Elevation:	
Water Column (Feet):	52.37'	Sheen/LNAPL/DNAPL present:	Sheen
Casing Volume (Gallons):	8.5 / 32.1 L	Other Remarks:	Purge & Sample Rt 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	7.0 / 26.4 L.		Purge Was Contained

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1445									PURGE START
1545	24.0L	12.04	6.42	394	1.53	35	2.17		Clear
1548	25.2 L	12.01	6.42	395	1.47	35			
1551	26.4	11.97	6.40	395	1.37	36			

Purging Equipment	~~Bladder Pump~~ Peristaltic	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1760	PAH-8270sim	3 - 1 L. Amber	ALS-Sample/MS/MSD
	PCP-8151	2 - 40 ml. Amber	ALS-Sample/MS/MSD
	TOTAL ARSENIC	1 - ~~500~~ ml. Plastic/HNO3	ALS-Sample
FD-0086	PAH-8270sim	250 1 - 1 L. Amber	ALS-Field Duplicate
	PCP-8151	1 - 40 ml. Amber	ALS-Field Duplicate
	TOTAL ARSENIC	1 - ~~500~~ ml. Plastic/HNO3	ALS-Field Duplicate
		250	

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3018.1	Facility #: 226-00-299	Date: 08/28/16	
SAMPLE #: GW-1761	Sept. 2016 Well Smplg	Location: Libby, MT	
	Project Name: FFS-Rem. Support	Field Pers./Comp.: David Cosgriff, Randy Cummings	
SAMPLE TIME: 1724	Site: Libby Mill Site	Inst. Calibration Date: 08/28/16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: °F, Clear, Calm			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	19.05'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	~~298~~ 43'	Groundwater Surface Elevation:	
Water Column (Feet):	23.95'	Sheen/LNAPL/DNAPL present:	
Casing Volume (Gallons):	3.9g / 14.7L	Other Remarks:	Purge/Sample @ 400ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	4.6g / 17.2L		Purge Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1640									PURGE START
1717	14.8L	13.93	9.00	331	1.46	90	7.87		
1720	16.0L	13.80	9.00	330	1.45	90			
1723	17.2L	13.93	9.00	331	1.44	90			

Purging Equipment	~~Bladder Pump~~ Peristaltic	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1761	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3018.2	Facility #: 226-00-299	Date: 08/28/16	
SAMPLE #: GW-1762	Project Name: Sept. 2016 Well Smplg	Location: Libby, MT	
SAMPLE TIME: 1607	Site: FFS-Rem. Support / Libby Mill Site	Field Pers./Comp.: David Cosgriff, Randy Cummings	
		Inst. Calibration Date: 08/26/16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: 80°F, Clear, Calm			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	18.73'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	~~288~~ 154'	Groundwater Surface Elevation:	
Water Column (Feet):	135.27	Sheen/LNAPL/DNAPL present:	
Casing Volume (Gallons):	22.0g / 83.2L	Other Remarks:	Purge/Sample @ 300ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	5.24g / 19.8L		Purge Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1500									PURGE START
1600	18.0L	14.97	7.23	350	1.18	-30	2.52		
1603	18.9L	14.92	7.25	350	1.18	-30			
1606	19.8L	15.00	7.26	350	1.17	-31			

Purging Equipment	~~Bladder Pump~~ Peristaltic	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1762	PCP/PAH-8040	3 - 1 L. Amber	LOSL-Sample/MS/MSD
	PAH-8270sim	3 - 1 L. Amber	ALS-Sample/MS/MSD
	PCP-8151	2 - 40 ml. Amber	ALS-Sample/MS/MSD
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS-Sample
FD-0087	PCP/PAH-8040	1 - 1 L. Amber	LOSL-Field Duplicate
	PAH-8270sim	1 - 1 L. Amber	ALS-Field Duplicate
	PCP-8151	1 - 40 ml. Amber	ALS-Field Duplicate
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS-Field Duplicate

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #:	3021.1	Facility #:	226-00-299	Date:	9-3-16
SAMPLE #:	GW-1763		Sept. 2016 Well Smplg	Location:	Libby, MT
		Project Name:	FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME:	1927	Site:	Libby Mill Site	Inst. Calibration Date:	9-3-16
Well Condition:		Good		**If *POOR* - Explanation:**	
Field Conditions/Weather:		61°f, Lt. Overcast, Calm			
Equipment Decontamination:		Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	10.72'	**Measuring Point Elev. (Feet):**	
Depth of Well (Feet):	20.0' ~~54~~	**Groundwater Surface Elevation:**	
Water Column (Feet):	9.28'	**Sheen/LNAPL/DNAPL present:**	None
Casing Volume (Gallons):	1.5/5.7 L.	**Other Remarks:**	Purge + Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	2.2 / 8.4 L.		

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1905									PURGE START
1920	6.0L	13.53	6.69	145	.77	71	9.02		
1923	7.2L.	13.52	6.68	145	.75	72			
1926	8.4 L.	13.51	6.68	145	.74	72			

Purging Equipment	~~Bladder Pump~~ Peristaltic	**Sampling Equipment**	Dedicated Tubing	**Sample Intake Depth**	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1763	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3029.1	Facility #: 226-00-299	Date: 9-27-16	
SAMPLE #: GW-1764	Sept. 2016 Well Smplg	Location:	Libby, MT
	Project Name: FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME: 1051	Site: Libby Mill Site	Inst. Calibration Date: 9-27-16	
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	50's, Clear, Calm		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
4"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	22.95'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	72'	Groundwater Surface Elevation:	
Water Column (Feet):	49.05'	Sheen/LNAPL/DNAPL present:	DNAPL/Sheen
Casing Volume (Gallons):	32.0/121 L.	Other Remarks:	Purge & Sample @ 400ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	6.3 / 24.0L		Purge Was Contained

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
0950									PURGE START
1050	24.0L	No Parameters Taken							
		NAPL Droplets & Sheen In Purge							

Purging Equipment	~~Bladder Pump~~ Peristaltic	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1764	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - 500 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3031.2	Facility #: 226-00-299	Date: 9-24-16	
SAMPLE #: GW-1765	Sept. 2016 Well Smplg	Location: Libby, MT	
	Project Name: FFS-Rem. Support	Field Pers./Comp.: David Cosgriff, Randy Cummings	
SAMPLE TIME: 2011	Site: Libby Mill Site	Inst. Calibration Date: 9-24-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: Clear, Breeze			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	21.85'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	52'	Groundwater Surface Elevation:	
Water Column (Feet):	30.15'	Sheen/LNAPL/DNAPL present:	Sheen
Casing Volume (Gallons):	4.9 / 18.5 L	Other Remarks:	Purged Sample @ 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	5.4 / 20.5 L		Purge Was Contained

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1920									PURGE START
2010	20.0L		Parameters Not Taken						
			Sheen On Purge						

Purging Equipment	~~Bladder Pump~~ Peristaltic	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1765	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3032.1	Facility #: 226-00-299	Date: 09-21-16	
SAMPLE #: GW-1766	Project Name: Sept. 2016 Well Smplg	Location: Libby, MT	
SAMPLE TIME: 1752	Site: FFS-Rem. Support / Libby Mill Site	Field Pers./Comp.: David Cosgriff, Randy Cummings	
		Inst. Calibration Date: 09-21-16	

Well Condition: Good — If *POOR* - Explanation:

Field Conditions/Weather: Overcast, 62°F

Equipment Decontamination: Dedicated Tubing

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	16.35'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	~~21.5~~ 20.5'	Groundwater Surface Elevation:	
Water Column (Feet):	4.15'	Sheen/LNAPL/DNAPL present:	
Casing Volume (Gallons):	.67g / 2.5L	Other Remarks:	Purge + Sample @ 400ml/m
Calculated Purge Vol. (Gal.):			Purge collected
Actual Purge Volume (Gal.):			

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1730									PURGE START
1745	6.0L	15.70	6.42	174	5.57	-66	2.21		
1748	7.2L	15.70	6.41	173	5.47	-66			
1751	8.4L	15.70	6.43	174	5.31	-67			

Purging Equipment	~~Bladder Pump~~ Peristaltic	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1766	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3039.2	Facility #: 226-00-299	Date: 9-24-16	
SAMPLE #: GW-1767	Project Name: Sept. 2016 Well Smplg	Location: Libby, MT	
SAMPLE TIME: RPC 1906 ~~1907~~	Site: FFS-Rem. Support / Libby Mill Site	Field Pers./Comp.: David Cosgriff, Randy Cummings	
		Inst. Calibration Date: 9-24-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: Clear, Breeze, 65°F			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	24.78'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	65'	Groundwater Surface Elevation:	
Water Column (Feet):	40.22'	Sheen/LNAPL/DNAPL present:	DNAPL / Sheen
Casing Volume (Gallons):	6.6 / 24.96	Other Remarks:	Purge & Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	6.3 / 24.0 L		Purge Was Continued

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1805									PURGE START
1905	24.0L	No Parameters Taken							
		Product In Purge							

Purging Equipment	~~Bladder Pump~~ Peristaltic	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1767	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3040.1	Facility #: 226-00-299	Date: 9-3-16	
SAMPLE #: GW-1768	Sept. 2016 Well Smplg	Location: Libby, MT	
	Project Name: FFS-Rem. Support	Field Pers./Comp.: David Cosgriff, Randy Cummings	
SAMPLE TIME: 2017	Site: Libby Mill Site	Inst. Calibration Date: 9-3-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: 63°F, Lt. Overcast, Calm			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	12.58'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	~~50'~~ 35'	Groundwater Surface Elevation:	
Water Column (Feet):	12.42'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	2/7.6L.	Other Remarks:	Purge & Sample @ 400ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	2.8/10.4L		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1950									PURGE START
2010	8.0L.	11.71	6.50	486	3.43	180	.66		
2013	9.2L.	11.72	6.50	487	3.42	181			
2016	10.4L.	11.70	6.50	486	3.41	182			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1768	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3041.1	Facility #: 226-00-299	Date: 9-21-16	
SAMPLE #: GW-1769	Project Name: Sept. 2016 Well Smplg	Location: Libby, MT	
	Site: FFS-Rem. Support	Field Pers./Comp.: David Cosgriff, Randy Cummings	
SAMPLE TIME: 1352	Site: Libby Mill Site	Inst. Calibration Date: 9-21-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: Overcast, Calm, 61°F			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	25.06'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	~~30.07~~ 30.0'	Groundwater Surface Elevation:	
Water Column (Feet):	4.94'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	.81 / 3.0 L	Other Remarks:	Purge & Sample at 300 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	1.7 / 6.3 L		Purge Was Contained

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1330									PURGE START
1345	4.5 L.	11.46	6.33	231	1.46	-46	.31		
1348	5.4 L.	11.45	6.33	2.31	1.43	-46			
1351	6.3 L.	11.46	6.33	231	1.42	-47			

Purging Equipment	~~Bladder Pump~~ Peristaltic	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1769	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3041.2	Facility #: 226-00-299	Date: 9-21-16	
SAMPLE #: GW-1770	Sept. 2016 Well Smplg	Location: Libby, MT	
	Project Name: FFS-Rem. Support	Field Pers./Comp.: David Cosgriff, Randy Cummings	
SAMPLE TIME: 1322	Site: Libby Mill Site	Inst. Calibration Date: 9-21-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: 59°F, Overcast, Calm			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	25.91'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	54' ~~57~~	Groundwater Surface Elevation:	
Water Column (Feet):	28.09'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	4.6 / 17.4 L.	Other Remarks:	Purge & Sample At 300 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	5.2 / 19.8 L.		Purge Was Contained

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1215									PURGE START
1315	18.92.	11.39	6.36	274	1.58	-83	.86		
1318	18.9 L.	11.41	6.37	275	1.56	-85			
1321	19.8 L.	11.46	6.40	275	1.55	-85			

Purging Equipment	~~Bladder Pump~~ Peristaltic	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1770	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3042.1	Facility #: 226-00-299	Date: 9-21-16	
SAMPLE #: GW-1771	Sept. 2016 Well Smplg	Location: Libby, MT	
	Project Name: FFS-Rem. Support	Field Pers./Comp.: David Cosgriff, Randy Cummings	
SAMPLE TIME: 1607	Site: Libby Mill Site	Inst. Calibration Date: 9-21-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: Overcast, Calm, 61°F			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	20.65'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	30.0' ~~55~~	Groundwater Surface Elevation:	
Water Column (Feet):	9.35'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	1.5/5.7 L.	Other Remarks:	Purge + Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	2.2/8.4 L.		Purge Was Contained

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1545									PURGE START
1600	6.0 L.	12.59	6.83	191	1.00	-123	1.36		
1603	7.2 L.	12.58	6.84	190	.98	-123			
1606	8.4 L.	12.58	6.84	191	.97	-123			

Purging Equipment	~~Bladder Pump~~ Peristaltic	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1771	PAH-8270sim	3 - 1 L. Amber	ALS-Sample/MS/MSD
	PCP-8151	2 - 40 ml. Amber	ALS-Sample/MS/MSD
	TOTAL ARSENIC	1 - 500 ml. Plastic/HNO3	ALS-Sample
FD-0088	PAH-8270sim	1 - 1 L. Amber	ALS-Field Duplicate
	PCP-8151	1 - 40 ml. Amber	ALS-Field Duplicate
	TOTAL ARSENIC	1 - 500 ml. Plastic/HNO3	ALS-Field Duplicate

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3042.2	Facility #: 226-00-299	Date: 9-21-16	
SAMPLE #: GW-1772	Sept. 2016 Well Smplg	Location:	Libby, MT
	Project Name: FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME: 1532	Site: Libby Mill Site	Inst. Calibration Date:	9-21-16
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	Overcast, Calm, 61°f		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	20.99'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	52' 55'	Groundwater Surface Elevation:	
Water Column (Feet):	31.01'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	5.1/19.32 L.	Other Remarks:	Purged + Sampled at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	5.9 / 22.42.		Purge Was Contained

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1435									PURGE START
1525	20.82.	12.19	6.98	246	1.04	-146	1.07		
1528	21.22.	12.19	6.99	246	1.04	-146			
1531	22.42.	12.19	6.99	246	1.04	-146			

Purging Equipment	~~Bladder Pump~~ Peristaltic	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1772	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3043.1	Facility #: 226-00-299	Date: 8-5-16	
SAMPLE #: GW-1773	Sept. 2016 Well Smplg	Location:	Libby, MT
	Project Name: FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME: 1402	Site: Libby Mill Site	Inst. Calibration Date:	8-5-16
Well Condition:	Good	If POOR - Explanation:	
Field Conditions/Weather:	Partial Overcast, Calm, 62°F		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	18.22'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	29' ~~57~~	Groundwater Surface Elevation:	
Water Column (Feet):	10.78	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	1.8/ 5.8 L.	Other Remarks:	Purge & Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	2.8/10.4 L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1335									PURGE START
1355	8.0 L.	14.01	6.94	279	2.09	182	1.18		
1358	9.2 L.	13.90	6.93	279	2.05	183			
1401	10.4 L.	13.82	6.93	279	2.06	184			

Purging Equipment	~~Bladder Pump~~ Peristaltic	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1773	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3043.2	Facility #: 226-00-299	Date: 9-5-16	
SAMPLE #: GW-1774	Sept. 2016 Well Smplg	Location:	Libby, MT
	Project Name: FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME: 1327	Site: Libby Mill Site	Inst. Calibration Date: 9-5-16	
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	59 deg; Lt. Overcast, Calm		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	18.63'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	50' ~~ST~~	Groundwater Surface Elevation:	
Water Column (Feet):	31.37'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	5.1/19.36	Other Remarks:	Purge & Sample at 400ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	5.9/22.42		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1230									PURGE START
1320	20.0L.	13.65	7.57	322	6.87	170	2.08		
1323	21.2L.	13.62	7.57	322	6.86	170			
1326	22.4L.	13.65	7.57	322	6.86	170			

Purging Equipment	~~Bladder Pump~~ Peristaltic	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1774	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3044.1	Facility #: 226-00-299	Date: 08-26-16	
SAMPLE #: GW-1775	Sept. 2016 Well Smplg	Location: Libby, MT	
SAMPLE TIME: 1330	Project Name: FFS-Rem. Support	Field Pers./Comp.: David Cosgriff, Randy Cummings	
	Site: Libby Mill Site	Inst. Calibration Date: 08/26/16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: 73° F, Clear, Calm			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	~~7.62'~~ 7.14'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	~~12.0~~ 19.0	Groundwater Surface Elevation:	
Water Column (Feet):	11.86	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	1.9g / 7.2L	Other Remarks:	Purge & Sample @ 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	3.8g / 14.4L		

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1253									PURGE START
1323	12.0L	11.92	6.88	388	3.71	185	.39		
1326	13.2L	11.93	6.89	388	3.64	185			
1329	14.4L	11.89	6.88	388	3.60	186			

Purging Equipment	~~Bladder Pump~~ Peristaltic	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1775	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3044.2	Facility #: 226-00-299	Date: 8-26-16	
SAMPLE #: GW-1776	Sept. 2016 Well Smplg	Location:	Libby, MT
	Project Name: FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME: 1247	Site: Libby Mill Site	Inst. Calibration Date: 8-26-16	

Well Condition: Good — If *POOR* - Explanation:

Field Conditions/Weather: 68°F, Clear, Calm

Equipment Decontamination: Dedicated Tubing

Casing Diameter: 2"

Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	7.62'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	~~170~~ 99.0'	Groundwater Surface Elevation:	
Water Column (Feet):	91.38'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	14.9/56.3 L	Other Remarks:	Purge & Sample at 400ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	~~15.0~~ ~~26.4L/6.9L~~ BU 28.84/7.6 gal		

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1135									PURGE START
12.35	24.0	10.37	6.82	306	2.45	211	.53		
12.38	25.2	10.46	7.02	306	2.24	197			
12.41	26.4	10.40	7.16	306	2.19	196			
12.43	27.6	10.50	7.20	305	2.13	193			
12.47	28.8	10.50	7.21	305	2.14	193			

Purging Equipment	~~Bladder Pump~~ Peristaltic	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1776	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3044.3	Facility #: 226-00-299	Date: 8-25-16 (26)	
SAMPLE #: GW-1777	Sept. 2016 Well Smplg	Location: Libby, MT	
	Project Name: FFS-Rem. Support	Field Pers./Comp.: 26 David Cosgriff, Randy Cummings	
SAMPLE TIME: 1122	Site: Libby Mill Site	Inst. Calibration Date: 8-25-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: 67°F, Clear, Calm			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
3"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	8.51'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	170'	Groundwater Surface Elevation:	
Water Column (Feet):	161.49'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	59.3 / 224.2	Other Remarks:	Purge & Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	7.0 / 26.3 L		

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1015									PURGE START
1115	24.0 L.	10.07	7.10	289	6.70	198	.37		
1118	25.2 L.	10.10	7.11	289	6.64	198			
1121	26.4 L.	10.10	7.11	289	6.67	198			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1777	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3047.1	Facility #: 226-00-299	Date: 8-26-16	
SAMPLE #: GW-1778	Sept. 2016 Well Smplg	Location:	Libby, MT
	Project Name: FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME: 1537	Site: Libby Mill Site	Inst. Calibration Date:	8-26-16
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	Clear, Calm, 82°F		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	13.19'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	~~200'~~ 27'	Groundwater Surface Elevation:	
Water Column (Feet):	13.81'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	2.3/8.7 L	Other Remarks:	Purge & Sample @ 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	33g / 124L		Purge Water Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1505									PURGE START
1530	10.0L	15.39	6.96	341	1.63	193	1.73		
1533	11.2L	14.90	6.96	340	1.68	194			
1536	12.4L	14.87	6.95	340	1.67	195			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1778	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3047.2	Facility #: 226-00-299	Date: 08-26-16	
SAMPLE #: GW-1779	Project Name: Sept. 2016 Well Smplg	Location: Libby, MT	
SAMPLE TIME: 1817	Site: FFS-Rem. Support / Libby Mill Site	Field Pers./Comp.: David Cosgriff, Randy Cummings	
		Inst. Calibration Date: 08-26-16	

Well Condition: Good — If *POOR* - Explanation:

Field Conditions/Weather: 83° F, Overcast

Equipment Decontamination: Dedicated Tubing

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	13.39'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	105.0' ~~200'~~	Groundwater Surface Elevation:	
Water Column (Feet):	91.61	Sheen/LNAPL/DNAPL present:	NONE
Casing Volume (Gallons):	14.9g / 56.3L	Other Remarks:	Purge & Sample @ 400ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	7.0g / 26.4L		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1710									PURGE START
1810	24.0L	13.05	7.23	338	4.02	198	7.58		
1813	25.2L	13.11	7.21	338	4.00	198			
1816	26.4L	13.11	7.22	338	4.00	198			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1779	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3047.3	Facility #: 226-00-299	Date: 8-26-16	
SAMPLE #: GW-1780	Sept. 2016 Well Smplg	Location: Libby, MT	
	Project Name: FFS-Rem. Support	Field Pers./Comp.: David Cosgriff, Randy Cummings	
SAMPLE TIME: 1655	Site: Libby Mill Site	Inst. Calibration Date: 8-26-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: Calm, Lt. Overcast, 82°F			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	13.14'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	~~200'~~ 178'	Groundwater Surface Elevation:	
Water Column (Feet):	164.86	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	26.9 / 101.72	Other Remarks:	Purge + Sample @ 400ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	26.4 / ~~99.8~~ g 7.0 g		Purge was collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1548									PURGE START
1648	24.0K	14.41	7.01	307	3.76	194	.39		
1652	25.2K	14.43	7.02	307	3.68	193			
1654	26.4K	14.41	7.01	307	3.65	192			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1780	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3048.1	Facility #: 226-00-299	Date: 9-5-16	
SAMPLE #: GW-1781	Project Name: Sept. 2016 Well Smplg	Location: Libby, MT	
SAMPLE TIME: 1751	Site: FFS-Rem. Support / Libby Mill Site	Field Pers./Comp.: David Cosgriff, Randy Cummings	Inst. Calibration Date: 9-5-16

Well Condition: Good — If *POOR* - Explanation:

Field Conditions/Weather: 69°F, Partly Cloudy, Calm

Equipment Decontamination: Dedicated Tubing

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	10.31'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	45'	Groundwater Surface Elevation:	
Water Column (Feet):	34.69'	Sheen/LNAPL/DNAPL present:	
Casing Volume (Gallons):	5.7g / 21.6L	Other Remarks:	Purge + Sample @ 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	6.3g / 24.0L		Purge collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1650									PURGE START
1744	21.6L	12.63	7.23	1339	1.02	72	2.40		
1747	22.8L	12.55	7.23	339	1.02	67			
1750	24.0L	12.53	7.23	339	1.02	65			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1781	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3048.2	Facility #: 226-00-299	Date: 9-5-16	
SAMPLE #: GW-1782	Sept. 2016 Well Smplg	Location: Libby, MT	
	Project Name: FFS-Rem. Support	Field Pers./Comp.: David Cosgriff, Randy Cummings	
SAMPLE TIME: 1642	Site: Libby Mill Site	Inst. Calibration Date: 9-5-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: 58°F, Cloudy			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	13.04'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	65'	Groundwater Surface Elevation:	
Water Column (Feet):	51.96'	Sheen/LNAPL/DNAPL present:	
Casing Volume (Gallons):	8.5g / 32.1L	Other Remarks:	Purge/Sample @ 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	7.0g / 26.4L		Purge Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1535									PURGE START
1635	24.0L	12.50	7.30	316	3.31	218	.86		
1638	25.2L	12.46	7.30	316	3.34	219			
1641	26.4L	12.46	7.31	316	3.29	218			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1782	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3049.1	Facility #: 226-00-299	Date: 9-20-16	
SAMPLE #: GW-1783	Sept. 2016 Well Smplg	Location:	Libby, MT
	Project Name: FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME: 1717	Site: Libby Mill Site	Inst. Calibration Date:	9-20-16
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	67. Overcast, Breezy		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	14.43	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	25'	Groundwater Surface Elevation:	
Water Column (Feet):	10.57'	Sheen/LNAPL/DNAPL present:	None.
Casing Volume (Gallons):	1.7 / 6.4 L.	Other Remarks:	Purge & Sample @ 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	2.8 / 10.4 L.		Purge Contained

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1650									PURGE START
1710	8.0 L.	17.55	6.73	235	1.26	-122	.68		
1713	9.2 L.	17.52	6.71	234	1.25	-122			
1716	10.4 L.	17.56	6.72	234	1.24	-122			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1783	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3049.2	Facility #: 226-00-299	Date: 9-20-16	
SAMPLE #: GW-1784	Sept. 2016 Well Smplg	Location:	Libby, MT
	Project Name: FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME: 1642	Site: Libby Mill Site	Inst. Calibration Date: 9-20-16	
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	Lt. Overcast, Breeze,		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	15.10'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	40'	Groundwater Surface Elevation:	
Water Column (Feet):	24.9'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	4.1 / 15.56.	Other Remarks:	Purge & Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	4.9 / 18.4 L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1555									PURGE START
1635	16.04.	13.13	7.14	265	1.47	-171	.62		
1638	17.2 L.	13.05	7.13	265	1.49	-171			
1641	18.4 L.	12.97	7.14	265	1.46	-171			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1784	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3049.3	Facility #: 226-00-299	Date: 9-20-16	
SAMPLE #: GW-1785	Project Name: Sept. 2016 Well Smplg	Location: Libby, MT	
	Site: FFS-Rem. Support	Field Pers./Comp.: David Cosgriff, Randy Cummings	
SAMPLE TIME: 1537	Site: Libby Mill Site	Inst. Calibration Date: 9-20-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: Lt. Overcast, Calm, 65°F			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	14.76'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	59'	Groundwater Surface Elevation:	
Water Column (Feet):	44.24'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	7.2/ 27.22	Other Remarks:	Purge & Sample @ 400 ml/min
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	7.0 /26.4 L		Purge Was Contained

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1430									PURGE START
1530	24.0 L.	12.85	7.40	307	1.50	-191	.14		
1533	25.1 L.	12.85	7.40	307	1.50	-191			
1536	26.4 L.	12.84	7.40	307	1.50	-191			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1785	PAH-8270sim	3 - 1 L. Amber	ALS-Sample/MS/MSD
	PCP-8151	2 - 40 ml. Amber	ALS-Sample/MS/MSD
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS-Sample
FD-0089	PAH-8270sim	1 - 1 L. Amber	ALS-Field Duplicate
	PCP-8151	1 - 40 ml. Amber	ALS-Field Duplicate
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS-Field Duplicate

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3050.1	Facility #: 226-00-299	Date: 9-20-16	
SAMPLE #: GW-1786	Sept. 2016 Well Smplg	Location:	Libby, MT
	Project Name: FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME: 1359	Site: Libby Mill Site	Inst. Calibration Date:	8-20-16
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	Lt. Overcast, Calm, 62°f		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	21.01'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	29'	Groundwater Surface Elevation:	
Water Column (Feet):	7.99'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	1.3/4.9 L.	Other Remarks:	Purge & Sample @ 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	2.2/8.4 L.		Purge Was Contained

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1337									PURGE START
1352	6.02.	11.04	6.58	509	6.31	131	.92		
1355	7.26.	11.04	6.57	509	6.34	131			
1358	8.42.	11.04	6.57	509	6.35	131			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1786	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3050.2	Facility #: 226-00-299	Date: 9-20-16	
SAMPLE #: GW-1787	Sept. 2016 Well Smplg	Location:	Libby, MT
	Project Name: FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME: 1212	Site: Libby Mill Site	Inst. Calibration Date:	9-20-16
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	55°F, Lt. Overcast, Calm		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	21.07'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	47'	Groundwater Surface Elevation:	
Water Column (Feet):	25.93'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	4.2 / 15.9 L.	Other Remarks:	Purge & Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	4.9 / 18.4 L.		Purge Was Contained

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1135									PURGE START
1205	16.0 L.	10.86	6.48	504	6.02	93	.62		
1208	17.2 L.	10.85	6.49	504	6.11	94			
1211	18.4 L.	10.83	6.49	504	6.13	95			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1787	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3050.3	Facility #: 226-00-299	Date: 9-20-16	
SAMPLE #: GW-1788	Project Name: Sept. 2016 Well Smplg	Location: Libby, MT	
	Site: FFS-Rem. Support	Field Pers./Comp.: David Cosgriff, Randy Cummings	
SAMPLE TIME: 1327		Inst. Calibration Date: 9-20-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: Lt. Overcast, Calm, 59°F			
Equipment Decontamination: Alconox Wash, Distilled Rinse, New Bladder			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	25.92'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	92'	Groundwater Surface Elevation:	
Water Column (Feet):	66.08'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	10.8 / 40.8 L.	Other Remarks:	Purge & Sample at 750 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	6.1 / 23.1 L.		Purge Was Contained

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1210									PURGE START
1320 1323	21.0L.	11.17	6.56	524	5.73	120	.41		
1323	22.05L.	11.19	6.56	525	5.67	120			
1326	23.1L.	11.20	6.56	525	5.69	120			

Purging Equipment	Bladder Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1788	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3051.1	Facility #: 226-00-299	Date: 08/28/16	
SAMPLE #: GW-1789	Sept. 2016 Well Smplg	Location: Libby, MT	
	Project Name: FFS-Rem. Support	Field Pers./Comp.: David Cosgriff, Randy Cummings	
SAMPLE TIME: 1839	Site: Libby Mill Site	Inst. Calibration Date: 08/28/16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: 80°F, Lt Overcast			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter: 2"

Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	18.39'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	67'	Groundwater Surface Elevation:	
Water Column (Feet):	48.61'	Sheen/LNAPL/DNAPL present:	
Casing Volume (Gallons):	7.92g / 29.9 L	Other Remarks:	Purge/Sample @ 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	7.0 gal / 26.4L		Purge Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1732									PURGE START
1832	24.0L	13.23	7.07	353	.80	-47	2.98		
1835	25.2L	13.18	7.07	354	.79	-48			
1838	26.4L	13.17	7.07	353	.80	-47			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1789	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #:	3054.3	Facility #:	226-00-299	Date:	9-24-16
SAMPLE #:	GW-1727		Sept. 2016 Well Smplg	Location:	Libby, MT
		Project Name:	FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME:	1226	Site:	Libby Mill Site	Inst. Calibration Date:	9-24-16
Well Condition:	Good			**If *POOR* - Explanation:**	
Field Conditions/Weather:	57°F, Lt. Overcast, Calm				
Equipment Decontamination:	Alconox Wash, D.I. Rinse, New Bladder				

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	32.61'	**Measuring Point Elev. (Feet):**	
Depth of Well (Feet):	70.0'	**Groundwater Surface Elevation:**	
Water Column (Feet):	37.39'	**Sheen/LNAPL/DNAPL present:**	~~DNAPL~~ LNAPL / Sheen
Casing Volume (Gallons):	6.1 / 23.1 L.	**Other Remarks:**	Purge & Sample @ 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	6.3 / 24.0 L		Purge was continued

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1125									PURGE START
1226	24.0L.	No	Parameters	Taken					
			Sheen On Surface						

Purging Equipment	Bladder Pump	**Sampling Equipment**	Same	**Sample Intake Depth**	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1727	PAH-8270sim	1 - 1 L. Amber	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #:	3061.1	Facility #:	226-00-299	Date:	9-28-16
SAMPLE #:	GW-1853		Sept. 2016 Well Smplg	Location:	Libby, MT
		Project Name:	FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME:	1131	Site:	Libby Mill Site	Inst. Calibration Date:	9-28-16
Well Condition:	Good			If POOR - Explanation:	
Field Conditions/Weather:	62°F, Clear, Calm				
Equipment Decontamination:	Dedicated Tubing				

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	17.18'	Measuring Point Elev. (Feet):	BVC
Depth of Well (Feet):	29.62'	Groundwater Surface Elevation:	LNAPL
Water Column (Feet):	12.44'	Sheen/LNAPL/DNAPL present:	Sheen/~~DNAPL~~ Droplets
Casing Volume (Gallons):	2.0/7.76	Other Remarks:	Purge + Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	2.1/8.0 L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1110									PURGE START
1130	8.0L	Parameters Not Taken							
~~1133~~	~~9.2L~~	Sheen & ~~DNAPL~~ LNAPL In Purge							
~~1136~~	~~10.4L~~								

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1853	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1-250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3061.3	Facility #: 226-00-299	Date: 9-28-16	
SAMPLE #: GW-1855	Project Name: Sept. 2016 Well Smplg	Location: Libby, MT	
SAMPLE TIME: 1047	Site: FFS-Rem. Support / Libby Mill Site	Field Pers./Comp.: David Cosgriff, Randy Cummings	Inst. Calibration Date: 9-28-16
Well Condition: Good		If POOR - Explanation:	
Field Conditions/Weather: 57°F Clear, Calm			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	23.68'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	75.29'	Groundwater Surface Elevation:	
Water Column (Feet):	51.61'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	8.4 / 31.8	Other Remarks:	Purge & Sample @ 400 ml/min
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	7.0 / 26.4 L.		Purge Was Contained

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
0940									PURGE START
1040	24.0 L	12.36	7.50	269	.70	-204	3.43		
1043	25.2 L	12.37	7.50	269	.70	-204			
1046	26.4 L	12.40	7.51	269	.70	-205			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1855	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1-250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3062.1	Facility #: 226-00-299	Date: 9-27-16	
SAMPLE #: GW-1856	Project Name: Sept. 2016 Well Smplg	Location: Libby, MT	
SAMPLE TIME: 1747	Site: FFS-Rem. Support / Libby Mill Site	Field Pers./Comp.: David Cosgriff, Randy Cummings	
		Inst. Calibration Date: 9-27-16	
Well Condition: Good		If POOR - Explanation:	
Field Conditions/Weather: 76°F, Clear, Calm			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	20.50'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	32.88'	Groundwater Surface Elevation:	
Water Column (Feet):	12.38'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	2.0 / 7.6 L.	Other Remarks:	Purge & Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	2.8 / 10.4 L		Purge Wat Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1720									PURGE START
1740	8.0 L	16.15	6.46	347	.91	-144	4.04		
1743	9.2 L	16.15	6.46	347	.91	-144			
1746	10.4 L	16.17	6.46	347	.90	-145			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1856	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1-250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #:	3062.2	Facility #:	226-00-299
SAMPLE #:	GW-1857		Sept. 2016 Well Smplg
		Project Name:	FFS-Rem. Support
SAMPLE TIME:	0857	Site:	Libby Mill Site
Well Condition:	Good		
Field Conditions/Weather:	49°C, Clear, Calm		
Equipment Decontamination:	Dedicated Tubing		

Date:	9-28-16
Location:	Libby, MT
Field Pers./Comp.:	David Cosgriff, Randy Cummings
Inst. Calibration Date:	9-28-16
If *POOR* - Explanation:	

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	21.01'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	49.46'	Groundwater Surface Elevation:	
Water Column (Feet):	28.45'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	4.6 / 17.4 L.	Other Remarks:	Purge & Sample at 400ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	5 H / 20.4 L		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
0805									PURGE START
0850	18.0 L.	12.50	6.13	160	.69	-6	2.54		
0853	19.2 L.	12.50	6.15	159	.69	-7			
0856	20.4 L.	12.51	6.16	159	.69	-9			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1857	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1-250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #:	3062.3	Facility #:	226-00-299
SAMPLE #:	GW-1858		Sept. 2016 Well Smplg
		Project Name:	FFS-Rem. Support
SAMPLE TIME:	1702	Site:	Libby Mill Site
Well Condition:	Good		
Field Conditions/Weather:	75°F, Clear, Calm		
Equipment Decontamination:	Dedicated Tubing		

Date:	9-27-16
Location:	Libby, MT
Field Pers./Comp.:	David Cosgriff, Randy Cummings
Inst. Calibration Date:	9-27-16
If *POOR* - Explanation:	

Casing Diameter: 2"	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed) Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	21.00'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	67.17'	Groundwater Surface Elevation:	
Water Column (Feet):	46.17'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	7.5/28 L	Other Remarks:	Purge + Sample ~ 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	7.0/26.4 L.		Purge Was Contained

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1555									PURGE START
1655	24.0 L.	12.84	7.08	251	.49	-233	8.25		
1658	25.2 L.	12.81	7.08	250	.48	-233			
1701	26.4 L.	12.76	7.08	251	.49	-234			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1858	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1-250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3063.1	Facility #: 226-00-299	Date: 9-27-16	
SAMPLE #: GW-1859	Project Name: Sept. 2016 Well Smplg	Location: Libby, MT	
SAMPLE TIME: 1522	Site: FFS-Rem. Support / Libby Mill Site	Field Pers./Comp.: David Cosgriff, Randy Cummings	Inst. Calibration Date: 9-27-16
Well Condition: (Good)		If *POOR* - Explanation:	
Field Conditions/Weather: 75°f, Clear, Calm			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	21.30'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	31.91'	Groundwater Surface Elevation:	
Water Column (Feet):	10.61'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	1.7 / 6.4 L	Other Remarks:	Purge + Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	2.8 / 10.4 L.		Purge Was Contained

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1455									PURGE START
1515	8.0 L	15.83	6.40	139	1.43	~116	1.77		
1518	9.2 L	15.84	6.42	139	1.41	~116			
1521	10.4 L.	15.88	6.42	139	1.39	~116			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1859	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1-250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #:	3063.2	Facility #:	226-00-299	Date:	8-27-16
SAMPLE #:	GW-1860		Sept. 2016 Well Smplg	Location:	Libby, MT
		Project Name:	FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME:	1437	Site:	Libby Mill Site	Inst. Calibration Date:	8-27-16
Well Condition:		Good		**If *POOR* - Explanation:**	
Field Conditions/Weather:		72°F, cloudy, calm			
Equipment Decontamination:		Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	21.18'	**Measuring Point Elev. (Feet):**	
Depth of Well (Feet):	49.80'	**Groundwater Surface Elevation:**	
Water Column (Feet):	28.62'	**Sheen/LNAPL/DNAPL present:**	None
Casing Volume (Gallons):	4.7 / 17.8 L	**Other Remarks:**	Purge & Sampled 400ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	5.4 / 20.4 L.		Purge Was Contained

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1345									PURGE START
1430	18.0 L.	13.62	6.53	143	1.32	2	3.82		
1433	19.2 L.	13.66	6.53	143	1.31	1			
1436	20.4 L.	13.72	6.53	143	1.32	2			

Purging Equipment	Peristaltic Pump	**Sampling Equipment**	Dedicated Tubing	**Sample Intake Depth**	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1860	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1-250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 3063.3	Facility #: 226-00-299	Date: 9-27-16	
SAMPLE #: GW-1861	Project Name: Sept. 2016 Well Smplg	Location: Libby, MT	
SAMPLE TIME: 1327	Site: FFS-Rem. Support / Libby Mill Site	Field Pers./Comp.: David Cosgriff, Randy Cummings	
Well Condition: Good		Inst. Calibration Date: 9-27-16	If POOR - Explanation:
Field Conditions/Weather: 63°F, clear, calm			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	22.65'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	66.62'	Groundwater Surface Elevation:	
Water Column (Feet):	43.97'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	7.2 / 27.2 L.	Other Remarks:	Purge + Sample At 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	7.0 / 26.4 L		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1220									PURGE START
1320	24.0 L.	12.46	7.11	262	.71	-356	5.07		
1323	25.2 L	12.45	7.12	263	.69	-356			
1326	26.4 L	12.46	7.12	262	.69	-355			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1861	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1-250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 5512.1	Facility #: 226-00-299	Date: 9-23-16	
SAMPLE #: GW-1790	Sept. 2016 Well Smplg	Location:	Libby, MT
	Project Name: FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME: 1637	Site: Libby Mill Site	Inst. Calibration Date: 9-23-16	
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	64°F, Overcast, Calm		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	17.19'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	30.03'	Groundwater Surface Elevation:	
Water Column (Feet):	12.84'	Sheen/LNAPL/DNAPL present:	
Casing Volume (Gallons):	2.1 / 7.9 L.	Other Remarks:	Purge & Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	2.8 / 10.4 L.		Purge Was Contained

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1610									PURGE START
1630	8.0 L.	15.93	6.69	383	1.36	-71	.87		
1633	9.2 L.	15.93	6.69	383	1.35	-71			
1636	10.4 L.	15.93	6.70	383	1.35	-71			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1790	PAH-8270sim	3 - 1 L. Amber	ALS-Sample/MS/MSD
	PCP-8151	2 - 40 ml. Amber	ALS-Sample/MS/MSD
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS-Sample
FD-0090	PAH-8270sim	1 - 1 L. Amber	ALS-Field Duplicate
	PCP-8151	1 - 40 ml. Amber	ALS-Field Duplicate
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS-Field Duplicate

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 5512.2	Facility #: 226-00-299	Date: 9-23-16	
SAMPLE #: GW-1791	Sept. 2016 Well Smplg	Location: Libby, MT	
	Project Name: FFS-Rem. Support	Field Pers./Comp.: David Cosgriff, Randy Cummings	
SAMPLE TIME: 1557	Site: Libby Mill Site	Inst. Calibration Date: 9-23-16	

Well Condition: Good — If *POOR* - Explanation:

Field Conditions/Weather: Overcast, Calm, 63°F

Equipment Decontamination: Alconox Wash, Dedicated Tubing, D.I. Rinse, New Bladder

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	29.01'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	52.69'	Groundwater Surface Elevation:	
Water Column (Feet):	23.68'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	3.9/14.7 L.	Other Remarks:	Purge + Sample @ 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	4.9/18.4 L		Purge Was Contained

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1510 ~~1510~~									PURGE START
1550 ~~1550~~	16.0 L	13.24	6.91	259	8.42	15	19.21		
1553 ~~1555~~	17.2 L	13.23	6.92	259	8.39	14	19.94		
1556	18.4 L	13.23	6.92	259	8.44	14	18.81		

Purging Equipment	~~Peristaltic Pump~~ Bladder Pump	Sampling Equipment	~~Dedicated Tubing~~ Sandy	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1791	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 5512.3	Facility #: 226-00-299	Date: 9-23-16	
SAMPLE #: GW-1792	Sept. 2016 Well Smplg	Location:	Libby, MT
	Project Name: FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME: 1451	Site: Libby Mill Site	Inst. Calibration Date: 9-23-16	
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	64°F, Lt. Overcast, Calm		
Equipment Decontamination:	Alconox Wash, Distilled Rinse, New Bladder		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	30.77'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	74.08'	Groundwater Surface Elevation:	
Water Column (Feet):	43.31'	Sheen/LNAPL/DNAPL present:	DNAPL Droplets, Sheen
Casing Volume (Gallons):	7.0 / 26.52.	Other Remarks:	Purge & Sample @ 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	6.3 / 24.02.		Purge Was Contained

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1350									PURGE START
1459	24.0 L.	No Parameters Taken							
1453									
1456			Sheen On Purge						

Purging Equipment	Bladder Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1792	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 5513.1	Facility #: 226-00-299	Date: 9-24-16	
SAMPLE #: GW-1793	Sept. 2016 Well Smplg	Location:	Libby, MT
	Project Name: FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME: 1012	Site: Libby Mill Site	Inst. Calibration Date:	9-24-16
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	Clear, Calm, 57°F		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	9.36'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	21.28'	Groundwater Surface Elevation:	
Water Column (Feet):	11.92'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	1.9/7.3 L	Other Remarks:	Purge & Sample @ 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	2.7/10.4 L		Purge Was Continuous

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
0945									PURGE START
1005	8.0 L	15.47	6.87	411	4.16	-125			
1008	9.2 L	15.48	6.87	411	4.12	-125			
1011	10.4 L	15.49	6.87	411	4.11	-125			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1793	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 5513.2	Facility #: 226-00-299	Date: 9-24-16	
SAMPLE #: GW-1794	Sept. 2016 Well Smplg	Location:	Libby, MT
	Project Name: FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME: 0932	Site: Libby Mill Site	Inst. Calibration Date: 9-24-16	
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	Clear, Calm, 47°F		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	25.31'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	49.28'	Groundwater Surface Elevation:	
Water Column (Feet):	23.97	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	3.9/14.8	Other Remarks:	Purge & Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	4.9/18.4 L.		Purge Was Contained

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
0845									PURGE START
0925	16.0 L.	12.78	6.95	623	2.81	-113	3.94		
0928	17.2 L.	12.80	6.95	623	2.72	-113			
0931	18.4 L.	12.77	6.95	623	2.77	-113			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1794	PAH-8270sim	3 - 1 L. Amber	ALS-Sample/MS/MSD
	PCP-8151	2 - 40 ml. Amber	ALS-Sample/MS/MSD
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS-Sample
FD-0091	PAH-8270sim	1 - 1 L. Amber	ALS-Field Duplicate
	PCP-8151	1 - 40 ml. Amber	ALS-Field Duplicate
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS-Field Duplicate

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #:	5513.3	Facility #: 226-00-299	Date: 9-24-16
SAMPLE #:	GW-1795	Sept. 2016 Well Smplg	Location: Libby, MT
		Project Name: FFS-Rem. Support	Field Pers./Comp.: David Cosgriff, Randy Cummings
SAMPLE TIME:		Site: Libby Mill Site	Inst. Calibration Date: 9-24-16
Well Condition:	Good		**If *POOR* - Explanation:**
Field Conditions/Weather:	47°F, Lt Overcast, Calm		
Equipment Decontamination:	Alconox Wash, Distilled Rinse, New Bladder		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	30.95'	**Measuring Point Elev. (Feet):**	
Depth of Well (Feet):	69.34'	**Groundwater Surface Elevation:**	
Water Column (Feet):	38.39'	**Sheen/LNAPL/DNAPL present:**	Sheen / Droplets
Casing Volume (Gallons):	6.3/ 23.8 L.	**Other Remarks:**	Purge + Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	6.4/ 24.0 L		Purge Was Contained

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
0725									PURGE START
0925	24.0L.	Readings	not	Taken					
			Product	Present	In	Purge			

Purging Equipment	Bladder Pump	**Sampling Equipment**	Dedicated Tubing	**Sample Intake Depth**	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1795	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 6001.1	Facility #: 226-00-299	Date: 9-23-16	
SAMPLE #: GW-1796	Sept. 2016 Well Smplg	Location:	Libby, MT
	Project Name: FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME: 1312	Site: Libby Mill Site	Inst. Calibration Date: 9-23-16	
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	62°F, Overcast; Calm		
Equipment Decontamination:	Alconox Wash, Distilled Rinse, New Bladder		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	28.55'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	45.0' ~~48'~~	Groundwater Surface Elevation:	
Water Column (Feet):	16.45'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	2.7 / 10.2 L	Other Remarks:	Purged & Sample. at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	3.8 / 14.4 L		Purge Was Contained

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1235									PURGE START
1305	12.0 L.	12.08	7.07	243	2.21	-142	.53		
1308	13.2 L	12.09	7.05	243	2.14	-142			
1311	14.4 L	12.12	7.05	243	2.17	-142			

Purging Equipment	Bladder Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1796	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 6001.2	Facility #: 226-00-299	Date: 9-23-16	
SAMPLE #: GW-1797	Sept. 2016 Well Smplg	Location: Libby, MT	
	Project Name: FFS-Rem. Support	Field Pers./Comp.: David Cosgriff, Randy Cummings	
SAMPLE TIME: 1222	Site: Libby Mill Site	Inst. Calibration Date: 9-23-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: Lt. Drizzle, Calm, 59°F			
Equipment Decontamination: Alconox Wash, Distilled Rinse, New Bladder			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	29.49'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	112.0' ~~118~~	Groundwater Surface Elevation:	
Water Column (Feet):	82.51'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	13.4 / 50.7 L.	Other Remarks:	Purge + Sample @ 200 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	7.0 / 26.4 L		Purge Was Contained

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1115									PURGE START
1215	24.0L	12.13	7.20	482	9.36	97	8.76		
1218	25.2L	12.14	7.21	482	9.28	96			
1221	26.4L	12.15	7.21	482	9.31	96			

Purging Equipment	Bladder Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1797	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 6002.1	Facility #: 226-00-299	Date: 9-27-16	
SAMPLE #: GW-1798	Sept. 2016 Well Smplg	Location: Libby, MT	
	Project Name: FFS-Rem. Support	Field Pers./Comp.: David Cosgriff, Randy Cummings	
SAMPLE TIME: 1715	Site: Libby Mill Site	Inst. Calibration Date: 8-27-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: Lt. Overcast, Calm, 82°F			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	15.09'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	22' ~~175~~	Groundwater Surface Elevation:	
Water Column (Feet):	6.91	Sheen/LNAPL/DNAPL present:	
Casing Volume (Gallons):	1.1 / 4.2 L.	Other Remarks:	Purged Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	2.2 / 8.4 L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1653									PURGE START
1708	6.01	14.53	7.54	375	2.72	92	13.72		
1711	7.26	14.45	7.54	375	2.72	93	12.96		
1714	8.46	14.42	7.54	375	2.71	94	13.04		

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1798	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 6002.2	Facility #: 226-00-299	Date: 8-27-16	
SAMPLE #: GW-1799	Sept. 2016 Well Smplg	Location:	Libby, MT
	Project Name: FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME: 1642	Site: Libby Mill Site	Inst. Calibration Date: 8-27-16	
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	80°F, Lt. Overcast, Calm		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	14.91'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	131 ~~179~~	Groundwater Surface Elevation:	
Water Column (Feet):	116.09'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	18.9 / 71.4 L.	Other Remarks:	Purge + Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	7.0 / 26.4 L.		Purge Was Continued

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1535									PURGE START
1635	24.02	14.44	6.97	387	1.74	87	7.71		
1638	25.22	14.54	6.99	387	1.75	87			
1641	26.4 L	14.56	7.01	387	1.74	86			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1799	PCP/PAH-8040	1 - 1 L. Amber	LOSL
	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #:	6002.3	Facility #:	226-00-299	Date:	8-27-16
SAMPLE #:	GW-1800		Sept. 2016 Well Smplg	Location:	Libby, MT
		Project Name:	FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME:	1526	Site:	Libby Mill Site	Inst. Calibration Date:	8-27-16
Well Condition:		Good		If POOR - Explanation:	
Field Conditions/Weather:		80°F, 67. Overcast, Calm			
Equipment Decontamination:		Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	14.70'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	162 ~~175~~	Groundwater Surface Elevation:	
Water Column (Feet):	147.3'	Sheen/LNAPL/DNAPL present:	NAPL Product In Purge
Casing Volume (Gallons):	24/90.8 L.	Other Remarks:	Purge & Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	6.3 / 24.0 L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1425									PURGE START
1525	24.0L	No Parameters Taken							
		Purge Produced NAPL After 3½ minutes Purging							
		Purged Well 1 hour then Sampled							
		* Note: Product Droplets In Samples							

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1800	PCP/PAH-8040	1 - 1 L. Amber	LOSL
	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #:	6003.1	Facility #:	226-00-299
SAMPLE #:	GW-1801		Sept. 2016 Well Smplg
		Project Name:	FFS-Rem. Support
SAMPLE TIME:	1052	Site:	Libby Mill Site

Date: 8-27-16
Location: Libby, MT
Field Pers./Comp.: David Cosgriff, Randy Cummings
Inst. Calibration Date: 8-27-16

Well Condition: Good — If *POOR* - Explanation:
Field Conditions/Weather: 62°F, Calm, 14. Overcast
Equipment Decontamination: Dedicated Tubing

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	17.02'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	~~177~~ 32.0'	Groundwater Surface Elevation:	
Water Column (Feet):	14.98'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	2.4 / 9.1 L.	Other Remarks:	Purge + Sample at 300 ml/mn
Calculated Purge Vol. (Gal.):			↓
Actual Purge Volume (Gal.):	3.3 / 12.2 L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1020									PURGE START
1045	10.0 L	12.02	7.34	462	2.3%	175	1.01		
1048	11.2 L.	12.05	7.35	462	2.3%	176			
1051	12.4 L.	12.03	7.36	462	2.26	174			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1801	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 6003.2	Facility #: 226-00-299	Date: 8-27-16	
SAMPLE #: GW-1802	Sept. 2016 Well Smplg	Location:	Libby, MT
	Project Name: FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME: 1002	Site: Libby Mill Site	Inst. Calibration Date: 8-27-16	
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	61° F, Lt. Overcast, Calm		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	162.81	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	1510 (177')	Groundwater Surface Elevation:	
Water Column (Feet):	12.3.19	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	20.1 / 76.0 L	Other Remarks:	Purge & Sample at 400ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	7.0 / 26.4 L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
0855									PURGE START
0955	24.0 L.	12.32	6.95	442	1.81	145	1.38		
0958	25.26.	12.35	6.95	443	1.77	149			
1001	26.4 L.	12.37	6.96	442	1.74	150			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1802	PCP/PAH-8040	1 - 1 L. Amber	LOSL
	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #:	6003.3	Facility #:	226-00-299	Date:	6-27-16
SAMPLE #:	GW-1803		Sept. 2016 Well Smplg	Location:	Libby, MT
		Project Name:	FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME:	0827	Site:	Libby Mill Site	Inst. Calibration Date:	6-27-16

Well Condition: Good — If *POOR* - Explanation:

Field Conditions/Weather: Lt. Overcast, calm, 51°F

Equipment Decontamination: Dedicated Tubing

Casing Diameter: 2"

Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	15.40	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	164 ~~477'~~	Groundwater Surface Elevation:	
Water Column (Feet):	148.1	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	24.1/91.1 L.	Other Remarks:	Purge + Sample @ 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	7.0 / 26.4 L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
0720									PURGE START
0820	24.0 L	12.21	6.81	428	2.08	66	1.77		
0823	25.2 L	12.22	6.82	428	2.00	67			
0826	26.4 L	12.22	6.80	428	2.01	67			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1803	PCP/PAH-8040	1 ~~2~~ - 1 L. Amber	LOSL-Sample/~~MS/MSD~~ 235
	PAH-8270sim	3 - 1 L. Amber	ALS-Sample/MS/MSD
	PCP-8151	2 - 40 ml. Amber	ALS-Sample/MS/MSD
	TOTAL ARSENIC	1 - 500 ml. Plastic/HNO3	ALS-Sample
FD-0092	PAH-8270sim	1 - 1 L. Amber	ALS-Field Duplicate
	PCP-8151	1 - 40 ml. Amber	ALS-Field Duplicate
	TOTAL ARSENIC	1 - 500 ml. Plastic/HNO3	ALS-Field Duplicate

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 6007.1	Facility #: 226-00-299	Date: 08-28-16	
SAMPLE #: GW-1804	Sept. 2016 Well Smplg	Location: Libby, MT	
	Project Name: FFS-Rem. Support	Field Pers./Comp.: David Cosgriff, Randy Cummings	
SAMPLE TIME: 1437	Site: Libby Mill Site	Inst. Calibration Date: 08-28-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: 78°F, Clear			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	19.77'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	148' ~~.164~~	Groundwater Surface Elevation:	
Water Column (Feet):	128.23' ~~144.23~~	Sheen/LNAPL/DNAPL present:	
Casing Volume (Gallons):	20.9/79.0L ~~23.5/88.1L~~	Other Remarks:	Purge/Sample @ 300 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	5.24 g / 19.8L		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1330									PURGE START
1430	18.0 L	15.42	7.00	417	1.58	-26	8.11		
1433	18.9 L	15.32	7.01	419	1.47	-29			
1436	19.8 L	15.27	7.01	419	1.46	-29			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1804	PCP/PAH-8040	1 - 1 L. Amber	LOSL
	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #:	6010.1	Facility #:	226-00-299	Date:	9-20-16
SAMPLE #:	GW-1805		Sept. 2016 Well Smplg	Location:	Libby, MT
		Project Name:	FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME:	1012	Site:	Libby Mill Site	Inst. Calibration Date:	9-20-16
Well Condition:	Good			If *POOR* - Explanation:	
Field Conditions/Weather:	Lt. Overcast, Calm, 47°F				
Equipment Decontamination:	Dedicated Tubing				

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	23.24'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	32.20'	Groundwater Surface Elevation:	
Water Column (Feet):	8.96'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	1.5 / 5.7 L.	Other Remarks:	Purge & Sample @ 400 Ml/m.
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	2.2 / 8.4 L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
0950									PURGE START
1005	6.02 L.	12.15	6.34	301	2.24	122	1.12		
1008	7.24 L.	12.11	6.35	301	2.26	123			
1011	8.46 L.	12.12	6.35	301	2.26	124			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1805	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #:	6010.2	Facility #:	226-00-299	Date:	9-20-16
SAMPLE #:	GW-1806		Sept. 2016 Well Smplg	Location:	Libby, MT
		Project Name:	FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME:	1102	Site:	Libby Mill Site	Inst. Calibration Date:	9-20-16
Well Condition:		Good		If *POOR* - Explanation:	
Field Conditions/Weather:		52°F, Lt. Overcast, Calm			
Equipment Decontamination:		Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	@ 23.32'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	45.30'	Groundwater Surface Elevation:	
Water Column (Feet):	21.98'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	3.6/13.6 L.	Other Remarks:	Purge & Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	4.3/16.4 L.		Purge Was Contained

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1020									PURGE START
1055	14.0 L.	11.65	6.56	285	1.77	-78	1.03		
1058	15.2 L.	11.65	6.57	285	1.77	-79			
1101	16.4 L.	11.65	6.57	284	1.76	-79			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1806	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 6010.3	Facility #: 226-00-299	Date: 9-20-16	
SAMPLE #: GW-1807	Sept. 2016 Well Smplg	Location: Libby, MT	
	Project Name: FFS-Rem. Support	Field Pers./Comp.: David Cosgriff, Randy Cummings	
SAMPLE TIME: 0938	Site: Libby Mill Site	Inst. Calibration Date: 9-20-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: Lt. Overcast, Calm, 78°F			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	23.32'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	67.60'	Groundwater Surface Elevation:	
Water Column (Feet):	45.28'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	7.4 / 28.0 L.	Other Remarks:	Purge & Sample at 400 mL/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	7.0 / 26.4 L.		Purge Was Contain'd

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
0870									PURGE START
0930	24.01	11.40	6.47	473	6.61	132	.42		
0933	25.21	11.39	6.50	473	6.62	131			
0937	26.42	11.37	6.52	473	6.54	131			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1807	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #:	6011.1	Facility #:	226-00-299	Date:	9-14-16
SAMPLE #:	GW-1808		Sept. 2016 Well Smplg	Location:	Libby, MT
		Project Name:	FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME:		Site:	Libby Mill Site	Inst. Calibration Date:	9-14-16
Well Condition:		GOOD		If *POOR* - Explanation:	
Field Conditions/Weather:		Clear, Calm, 48°F			
Equipment Decontamination:		Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	20.74'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	29.20'	Groundwater Surface Elevation:	
Water Column (Feet):	8.46'	Sheen/LNAPL/DNAPL present:	NONE
Casing Volume (Gallons):	1.4/5.3 L.	Other Remarks:	Purge & Sample @ 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	2.2/8.4 L.		Purge Was Contained

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1035									PURGE START
1050	6.0 L.	12.84	6.55	339	1.26	-46	8.72		
1053	7.2 L.	12.86	6.57	328	1.28	-47			
1056	8.4 L.	12.86	6.58	334	1.29	-45			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1808	PAH-8270sim	3 - 1 L. Amber	ALS-Sample/MS/MSD
	PCP-8151	2 - 40 ml. Amber	ALS-Sample/MS/MSD
	TOTAL ARSENIC	1 - 500 ml. Plastic/HNO3	ALS-Sample
FD-0093	PAH-8270sim	1 - 1 L. Amber	ALS-Field Duplicate
	PCP-8151	1 - 40 ml. Amber	ALS-Field Duplicate
	TOTAL ARSENIC	1 - 500 ml. Plastic/HNO3	ALS-Field Duplicate

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #:	6011.2	Facility #:	226-00-299	Date:	9-14-16
SAMPLE #:	GW-1809		Sept. 2016 Well Smplg	Location:	Libby, MT
		Project Name:	FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME:	1022	Site:	Libby Mill Site	Inst. Calibration Date:	9-14-16
Well Condition:		Good		If POOR - Explanation:	
Field Conditions/Weather:		41°F, Clear, Calm			
Equipment Decontamination:		Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	20.93'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	47.80'	Groundwater Surface Elevation:	
Water Column (Feet):	26.87'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	4.4/16.6 L.	Other Remarks:	Purge & Sample @ ~400ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	5.7/21.4 L.		Purge Contained

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
0930									PURGE START
1015	18.0 L	12.64	6.91	203	1.63	-124	2.44		
1018	19.2 L	12.70	6.93	203	1.60	-136			
1021	21.4 L.	12.72	6.92	203	1.59	-136			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1809	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #:	6011.3	Facility #:	226-00-299	Date:	9-14-16
SAMPLE #:	GW-1810		Sept. 2016 Well Smplg	Location:	Libby, MT
		Project Name:	FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME:	0922.	Site:	Libby Mill Site	Inst. Calibration Date:	9-14-16
Well Condition:		Good		**If *POOR* - Explanation:**	
Field Conditions/Weather:		Clear, Calm 75°F			
Equipment Decontamination:		Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	20.89'	**Measuring Point Elev. (Feet):**	
Depth of Well (Feet):	67.40'	**Groundwater Surface Elevation:**	
Water Column (Feet):	46.51'	**Sheen/LNAPL/DNAPL present:**	None
Casing Volume (Gallons):	7.6 / 23.2 L.	**Other Remarks:**	Purge & Sample at 400ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	7.0 / 26.4 L.		Purge Was Contained

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
0815									PURGE START
0915	24.0 L.	12.03	6.87	313	1.47	-132	1.42		
0918	25.2 L.	12.03	6.85	313	1.47	-131			
0921	26.4 L.	12.04	6.87	312	1.47	-132			

Purging Equipment	Peristaltic Pump	**Sampling Equipment**	Dedicated Tubing	**Sample Intake Depth**	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1810	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 6012.1	Facility #: 226-00-299	Date: 9/13/16	
SAMPLE #: GW-1811	Project Name: Sept. 2016 Well Smplg	Location: Libby, MT	
SAMPLE TIME: 1418	Site: FFS-Rem. Support / Libby Mill Site	Field Pers./Comp.: David Cosgriff, Randy Cummings	Inst. Calibration Date: 9/13/16
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: 53°F Clear & Calm			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	20.14	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	30.50'	Groundwater Surface Elevation:	
Water Column (Feet):	10.36	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	1.7 / 6.4 L.	Other Remarks:	Purge & Sample at 400ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	2.3 / 8.8L		Purge was collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1355									PURGE START
1411	6.4L	12.67	7.05	266	1.35	20.8	1.03		
1414	7.6L	12.64	7.04	266	1.32	21			
1417	8.8L	12.66	7.04	266	1.30	22			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1811	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 6012.2	Facility #: 226-00-299	Date: 9/13/16	
SAMPLE #: GW-1812	Sept. 2016 Well Smplg	Location: Libby, MT	
	Project Name: FFS-Rem. Support	Field Pers./Comp.: David Cosgriff, Randy Cummings	
SAMPLE TIME: 1514	Site: Libby Mill Site	Inst. Calibration Date: 9/13/16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: 54°F Clear & Calm			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	20.39	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	46.90'	Groundwater Surface Elevation:	
Water Column (Feet):	26.51	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	4.3 / 16.6 L.	Other Remarks:	Purge & Sample at 400 ML/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	5 / 19.2 L.		Purge was collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1425									PURGE START
1507	16.8L	12.81	7.43	320	1.31	-128	2.39		
1510	18 L	12.85	7.43	321	1.26	-128			
1513	19.2L	12.86	7.42	321	1.24	-128			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1812	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 6012.3	Facility #: 226-00-299	Date: 9/13/16	
SAMPLE #: GW-1813	Sept. 2016 Well Smplg	Location: Libby, MT	
SAMPLE TIME: 1632	Project Name: FFS-Rem. Support	Field Pers./Comp.: David Cosgriff, Randy Cummings	
	Site: Libby Mill Site	Inst. Calibration Date: 9/13/16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: 55°F Clear & Calm			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	20.71	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	67.60'	Groundwater Surface Elevation:	
Water Column (Feet):	46.89	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	7.6 / 29.4 L.	Other Remarks:	Purge & Sample at 400 mL/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	6.8 / 26.4 L		Purge was collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1625									PURGE START
1625	24 L	13.16	7.47	311	.99	-99	.39		
1628	25.2L	13.18	7.48	311	.99	-100			
1631	26.4L	13.11	7.48	311	.96	-100			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1813	PAH-8270sim	3 - 1 L. Amber	ALS-Sample/MS/MSD
	PCP-8151	2 - 40 ml. Amber	ALS-Sample/MS/MSD
	TOTAL ARSENIC	1 - 500 ml. Plastic/HNO3	ALS-Sample
FD-0094	PAH-8270sim	1 - 1 L. Amber	ALS-Field Duplicate
	PCP-8151	1 - 40 ml. Amber	ALS-Field Duplicate
	TOTAL ARSENIC	1 - 500 ml. Plastic/HNO3	ALS-Field Duplicate

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #:	6013.1	Facility #:	226-00-299	Date:	9-5-16
SAMPLE #:	GW-1814		Sept. 2016 Well Smplg	Location:	Libby, MT
		Project Name:	FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME:	1107	Site:	Libby Mill Site	Inst. Calibration Date:	9-5-16
Well Condition:		Good		If *POOR* - Explanation:	
Field Conditions/Weather:		Overcast, Calm, 55°F			
Equipment Decontamination:		Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	18.02'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	26.40'	Groundwater Surface Elevation:	
Water Column (Feet):	8.38'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	1.4/5.3 L.	Other Remarks:	Purge & Sample at 400 ml/min
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	2.2/8.4 L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1045									PURGE START
1100	6.0 L.	13.89	7.10	447	4.57	130	1.95		
1103	7.2 L.	13.89	7.11	447	4.57	130			
1106	8.4 L.	13.89	7.11	447	4.57	131			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1814	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #:	6013.2	Facility #:	226-00-299	Date:	9-5-16
SAMPLE #:	GW-1815		Sept. 2016 Well Smplg	Location:	Libby, MT
		Project Name:	FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME:	1027	Site:	Libby Mill Site	Inst. Calibration Date:	9-5-16
Well Condition:		Good		If *POOR* - Explanation:	
Field Conditions/Weather:		Overcast, Lt. Rain, Calm, 52°F			
Equipment Decontamination:		Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	18.11'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	38.70'	Groundwater Surface Elevation:	
Water Column (Feet):	20.59'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	3.4/12.9 L.	Other Remarks:	Purge + Sample at 400 ml/min
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	4.3/16.42.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
0945									PURGE START
1020	14.0 L.	12.43	7.21	438	3.47	107	2.14		
1023	15.2 L.	12.43	7.22	438	3.39	107			
1026	16.4 L.	12.43	7.23	438	3.29	108			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1815	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #:	6013.3	Facility #:	226-00-299	Date:	9-5-16
SAMPLE #:	GW-1816	Project Name:	Sept. 2016 Well Smplg	Location:	Libby, MT
SAMPLE TIME:	0937	Site:	FFS-Rem. Support / Libby Mill Site	Field Pers./Comp.:	David Cosgriff, Randy Cummings
Well Condition:	Good			Inst. Calibration Date:	9-5-16
Field Conditions/Weather:	Overcast, Calm 51°F			If *POOR* - Explanation:	
Equipment Decontamination:	Dedicated Tubing				

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	18.49'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	67.20'	Groundwater Surface Elevation:	
Water Column (Feet):	48.71'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	7.9 / 29.9 L	Other Remarks:	Purge & Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	7.0 / 26.4 L		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
0830									PURGE START
0930	24.02	11.65	6.83	367	.99	29	5.53		
0933	24.21	11.64	6.86	368	1.01	29			
0936	26.42	11.65	6.85	368	.98	28			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1816	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 6014.1	Facility #: 226-00-299	Date: 8-27-16	
SAMPLE #: GW-1817	Sept. 2016 Well Smplg	Location: Libby, MT	
	Project Name: FFS-Rem. Support	Field Pers./Comp.: David Cosgriff, Randy Cummings	
SAMPLE TIME: 1358	Site: Libby Mill Site	Inst. Calibration Date: 8-27-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: 80°F, Lt. Overcast, Calm			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	16.73'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	30'	Groundwater Surface Elevation:	
Water Column (Feet):	13.27'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	2.2/8.3L	Other Remarks:	Purge + Sample at 400ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	2.9/10.8L		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1330									PURGE START
1351	8.4 L.	13.44	7.44	473	2.95	193	191 .51		
1354	9.6 L.	13.52	7.44	472	2.93	193	193		
1357	10.8 L.	13.54	7.44	473	2.88	193	193 RPT		

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1817	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #:	6014.2	Facility #:	226-00-299	Date:	8-22-16
SAMPLE #:	GW-1818		Sept. 2016 Well Smplg	Location:	Libby, MT
		Project Name:	FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME:	1322	Site:	Libby Mill Site	Inst. Calibration Date:	8-22-16
Well Condition:	Good			If *POOR* - Explanation:	
Field Conditions/Weather:	79°F, Lt. Overcast, Calm				
Equipment Decontamination:	Dedicated Tubing				

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	16.58'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	45.60'	Groundwater Surface Elevation:	
Water Column (Feet):	29.02'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	4.7/18.8 L.	Other Remarks:	Purge + Sample at 400 ml/min
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	5.4 / 20.4 L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1230									PURGE START
1315	18.02	13.60	7.33	461	2.43	~~108~~	70.68		
1318	19.2 L.	13.52	7.33	461	2.42	71	71		
1321	20.4 L.	13.54	7.33	461	2.44	72	72 RV		

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1818	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #:	6014.3	Facility #:	226-00-299	Date:	8-27-16
SAMPLE #:	GW-1819		Sept. 2016 Well Smplg	Location:	Libby, MT
		Project Name:	FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME:	1217	Site:	Libby Mill Site	Inst. Calibration Date:	8-27-16
Well Condition:	Good			If *POOR* - Explanation:	
Field Conditions/Weather:	Lt. Overcast, calm, 64°f				
Equipment Decontamination:	Dedicated Tubing				

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	16.47'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	72.10'	Groundwater Surface Elevation:	
Water Column (Feet):	55.63'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	9.1/34.4L.	Other Remarks:	Purge & Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	7.0 / 26.4L		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1110									PURGE START
1210	24.0L.	12.51	7.05	444	1.09	114	1.61		
1213	25.2L.	12.54	7.05	444	1.08	115			
1216	26.4L.	12.59	7.05	441	1.06	115			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1819	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 6015.1	Facility #: 226-00-299	Date: 8-27-16	
SAMPLE #: GW-1820	Sept. 2016 Well Smplg	Location:	Libby, MT
	Project Name: FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME: 1747	Site: Libby Mill Site	Inst. Calibration Date: 8-27-16	
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	83°F, Lt. Overcast, Calm		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	14.86'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	24.10'	Groundwater Surface Elevation:	
Water Column (Feet):	9.24'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	1.5 / 5.7 Liters	Other Remarks:	Purge & Sample at 400 ml/mn
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	2.2 / 8.4 L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1725									PURGE START
1740 1728	6.02	14.69	7.03	300	2.90	183	5.67		
1743 1731	7.26	14.83	7.04	300	2.89	184			
1746	8.46	14.72	7.05	301	2.87	186			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1820	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #:	6015.2	Facility #:	226-00-299	Date:	8-27-16
SAMPLE #:	GW-1821		Sept. 2016 Well Smplg	Location:	Libby, MT
		Project Name:	FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME:	1845	Site:	Libby Mill Site	Inst. Calibration Date:	8-27-16
Well Condition:		Good		If *POOR* - Explanation:	
Field Conditions/Weather:		80°F, Overcast, Calm			
Equipment Decontamination:		Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	14.85'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	40.20'	Groundwater Surface Elevation:	
Water Column (Feet):	25.35'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	4.1 / 15.5 L.	Other Remarks:	Purge & Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	4.9 / 18.4 L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1758									PURGE START
1838	16.06	13.72	7.14	376	1.30	31	2.50		
1841	17.2 L.	13.71	7.14	376	1.30	32			
1844	18.4 L.	13.65	7.15	376	1.29	32			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1821	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #:	6015.3	Facility #:	226-00-299	Date:	8-27-16
SAMPLE #:	GW-1822		Sept. 2016 Well Smplg	Location:	Libby, MT
		Project Name:	FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME:	1954	Site:	Libby Mill Site	Inst. Calibration Date:	8-27-16
Well Condition:	Good			**If *POOR* - Explanation:**	
Field Conditions/Weather:	Overcast, Lt. Breeze, 78°F				
Equipment Decontamination:	Dedicated Tubing				

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed) Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47
2"	

Depth to Water (Feet):	14.68'	**Measuring Point Elev. (Feet):**	
Depth of Well (Feet):	56.20'	**Groundwater Surface Elevation:**	
Water Column (Feet):	41.52'	**Sheen/LNAPL/DNAPL present:**	None
Casing Volume (Gallons):	6.8/25.7L.	**Other Remarks:**	Purge + Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	7.0 /26.4L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1847									PURGE START
1947	24.0L	13.79	7.14	370	1.19	-26	1.03		
1950	25.2L.	13.66	7.16	371	1.21	-27			
1953	26.4L.	13.58	7.15	371	1.20	-27			

Purging Equipment	Peristaltic Pump	**Sampling Equipment**	Dedicated Tubing	**Sample Intake Depth**	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1822	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 6016.1	Facility #: 226-00-299	Date: 9/13/16	
SAMPLE #: GW-1823	Sept. 2016 Well Smplg	Location: Libby, MT	
SAMPLE TIME: 1232 ~~1210~~	Project Name: FFS-Rem. Support	Field Pers./Comp.: David Cosgriff, Randy Cummings	
	Site: Libby Mill Site	Inst. Calibration Date: 9/13/16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: 48°F Clear & Calm			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	16.80'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	24.00'	Groundwater Surface Elevation:	
Water Column (Feet):	7.2	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	1.2 / 4.5 L.	Other Remarks:	Purge & Sample at 400 ML./m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	2.2 / 8.4 L.		Purge was collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1210									PURGE START
1225	6.0 L.	13.66	7.14	354	2.31	15	1.19		
1228	7.2 L.	13.66	7.14	353	2.29	16			
1231	8.4 L.	13.66	7.14	353	2.28	17			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1823	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 6016.2	Facility #: 226-00-299	Date: 9/13/16	
SAMPLE #: GW-1824	Sept. 2016 Well Smplg	Location: Libby, MT	
	Project Name: FFS-Rem. Support	Field Pers./Comp.: David Cosgriff, Randy Cummings	
SAMPLE TIME: 1332	Site: Libby Mill Site	Inst. Calibration Date: 9/13/16	
Well Condition: Good.		If *POOR* - Explanation:	
Field Conditions/Weather: 50°F Clear & Calm			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter: 2"

Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	16.82'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	44'	Groundwater Surface Elevation:	
Water Column (Feet):	27.18	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	4.4 / 16.6 L.	Other Remarks:	Purge & Sample at 400 ML./m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	5.4 / 20.4 L.		Purge was collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1240									PURGE START
1325	18.0L	12.63	7.28	364	1.18	-118	.79		
1328	19.2L	12.70	7.29	364	1.18	-118			
1331	20.4L	12.77	7.29	364	1.19	-119			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1824	PAH-8270sim	3 - 1 L. Amber	ALS-Sample/MS/MSD
	PCP-8151	2 - 40 ml. Amber	ALS-Sample/MS/MSD
	TOTAL ARSENIC	1 - 500 ml. Plastic/HNO3	ALS-Sample
FD-0095	PAH-8270sim	1 - 1 L. Amber	ALS-Field Duplicate
	PCP-8151	1 - 40 ml. Amber	ALS-Field Duplicate
	TOTAL ARSENIC	1 - 500 ml. Plastic/HNO3	ALS-Field Duplicate

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 6016.3	Facility #: 226-00-299	Date: 9/13/16	
SAMPLE #: GW-1825	Sept. 2016 Well Smplg	Location: Libby, MT	
	Project Name: FFS-Rem. Support	Field Pers./Comp.: David Cosgriff, Randy Cummings	
SAMPLE TIME: 1157	Site: Libby Mill Site	Inst. Calibration Date: 9/13/16	
Well Condition: Good		If POOR - Explanation:	
Field Conditions/Weather: 42°F Clear & Calm			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	16.80	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	64'	Groundwater Surface Elevation:	
Water Column (Feet):	47.20	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	7.7 / 29.1 L.	Other Remarks:	Purge & Sample at 400 ML/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	7.0 / 26.4 L.		Purge was collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1050									PURGE START
1150	24.0 L.	11.64	7.08	368	1.17	89	~39		
1153	25.2 L.	11.65	7.08	368	1.15	88			
1156	26.4 L.	11.71	7.09	368	1.14	86			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1825	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #:	6017.1	Facility #:	226-00-299	Date:	9-23-16
SAMPLE #:	GW-1826		Sept. 2016 Well Smplg	Location:	Libby, MT
		Project Name:	FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME:	1037	Site:	Libby Mill Site	Inst. Calibration Date:	9-23-16

Well Condition: Good — **If *POOR* - Explanation:**

Field Conditions/Weather: Overcast, Calm, 55°F

Equipment Decontamination: Alconox Wash, Distilled Rinse, New Bladder

Casing Diameter:

Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	35.05'	**Measuring Point Elev. (Feet):**	
Depth of Well (Feet):	43'	**Groundwater Surface Elevation:**	
Water Column (Feet):	7.95'	**Sheen/LNAPL/DNAPL present:**	Weak
Casing Volume (Gallons):	1.3/4.9 L.	**Other Remarks:**	Purge & Sample at 400 ml/mn
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	2.8/10.4 L.		Purge Was Contained

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1010									PURGE START
1030	8.02.	11.51	6.40	310	6.25	59	3.16		
1033	9.2 L	11.51	6.41	309	6.02	60			
1036	10.4 L.	11.50	6.41	309	6.17	59			

Purging Equipment	Bladder Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1826	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 6017.2	Facility #: 226-00-299	Date: 9-23-16	
SAMPLE #: GW-1827	Sept. 2016 Well Smplg	Location: Libby, MT	
	Project Name: FFS-Rem. Support	Field Pers./Comp.: David Cosgriff, Randy Cummings	
SAMPLE TIME: 0952	Site: Libby Mill Site	Inst. Calibration Date: 9-23-16	
Well Condition:	(Good)	If *POOR* - Explanation:	
Field Conditions/Weather:	Overcast, Calm, 50°F		
Equipment Decontamination:	Alconox Wash, Distilled Rinse, New Bladder		

Casing Diameter: 2"	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed) Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	35.08'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	56'	Groundwater Surface Elevation:	
Water Column (Feet):	20.92'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	3.4/ 12.9 L.	Other Remarks:	Purged & Sampled @ 400ml/m
Calculated Purge Vol. (Gal.):			↓
Actual Purge Volume (Gal.):	4.3/ 16.4 L.		Purge H2O Contained

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
0910									PURGE START
0945	14.0 L.	11.40	6.86	310	1.59	-96	1.03		
0948	15.2 L.	11.41	6.86	309	1.63	-96			
0951	16.4 L.	11.41	6.86	310	1.56	-97			

Purging Equipment	Bladder Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1827	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 6017.3	Facility #: 226-00-299	Date: 9-23-16	
SAMPLE #: GW-1828	Sept. 2016 Well Smplg	Location:	Libby, MT
	Project Name: FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME: 0852	Site: Libby Mill Site	Inst. Calibration Date: 9-23-16	
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	Overcast, Calm, 46°F		
Equipment Decontamination:	Alconox Wash, Distilled Rinse, New Bladder		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	35.12'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	69'	Groundwater Surface Elevation:	
Water Column (Feet):	33.18'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	5.5/20.8 L.	Other Remarks:	Purge & Sample @ 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	6.5/24.4 L.		Purge Was Contained

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
0750									PURGE START
0845	22.0 L.	11.21	6.48	309	3.93	-89	1.21		
0848	23.2 L.	11.22	6.50	308	3.90	-90			
0851	24.4 L.	11.23	6.51	308	3.90	-92			

Purging Equipment	Bladder Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1828	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS
RB-0014	PAH-8270sim	2 1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #:	6018.1	Facility #:	226-00-299
SAMPLE #:	GW-1829	Project Name:	Sept. 2016 Well Smplg
SAMPLE TIME:	1542	Site:	FFS-Rem. Support / Libby Mill Site
Date:	9-3-16		
Location:	Libby, MT		
Field Pers./Comp.:	David Cosgriff, Randy Cummings		
Inst. Calibration Date:	9-3-16		
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	63°f, Partial Overcast, Breeze		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:

Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	18.30'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	27.40'	Groundwater Surface Elevation:	
Water Column (Feet):	9.1'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	1.5 / 5.7 L.	Other Remarks:	Purge + Sample @ 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	2.2 / 8.4 L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1520									PURGE START
1535	6.0 L.	10.74	7.57	.357	6.13	212	.62		
1538	7.2 L.	10.75	7.60	.358	6.13	211			
1541	8.4 L.	10.71	7.59	.357	6.12	211			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1829	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 6018.2	Facility #: 226-00-299	Date: 9-3-16	
SAMPLE #: GW-1830	Project Name: Sept. 2016 Well Smplg	Location: Libby, MT	
SAMPLE TIME: 1512	Site: FFS-Rem. Support / Libby Mill Site	Field Pers./Comp.: David Cosgriff, Randy Cummings	Inst. Calibration Date: 9-3-16
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: 62°F, Partial Overcast, Calm			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	18.25'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	57.60'	Groundwater Surface Elevation:	
Water Column (Feet):	39.35'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	6.4 / 24.2 L.	Other Remarks:	Purge & Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	7.0 / 26.4 L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1405									PURGE START
1505	14.0	9.84	7.62	217	7.56	221	1.08		
1508	25.2	9.91	7.60	217	7.53	220			
1511	26.4	10.00	7.56	217	7.57	220			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1830	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #:	6019.1	Facility #:	226-00-299	Date:	9-13-16
SAMPLE #:	GW-1831		Sept. 2016 Well Smplg	Location:	Libby, MT
		Project Name:	FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME:	0807	Site:	Libby Mill Site	Inst. Calibration Date:	9-13-16
Well Condition:	Good			If *POOR* - Explanation:	
Field Conditions/Weather:	75°F, Overcast, Calm				
Equipment Decontamination:	Dedicated Tubing				

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed) Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47
2"	

Depth to Water (Feet):	13.31'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	23'	Groundwater Surface Elevation:	
Water Column (Feet):	9.69'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	1.6/6.0L	Other Remarks:	~~None~~ Purge & Sample @ 400 ml/m + Purge Contained
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	2.2/8.4L		

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
0745									PURGE START
0800	6.0L	10.44	4.25	282	7.29	294	.94		
0803	7.2L	10.65	4.29	282	7.32	291			
0806	8.4L	10.67	4.30	282	7.21	291			
↓									

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1831	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #:	6019.2	Facility #:	226-00-299	Date:	9-13-16
SAMPLE #:	GW-1832		Sept. 2016 Well Smplg	Location:	Libby, MT
		Project Name:	FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME:	1027	Site:	Libby Mill Site	Inst. Calibration Date:	09-13-16

Well Condition: Good — If *POOR* - Explanation:

Field Conditions/Weather: 37°F, Overcast, Calm

Equipment Decontamination: Dedicated Tubing

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	13.25'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	43'	Groundwater Surface Elevation:	
Water Column (Feet):	29.75	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	4.8 / 18.1 L.	Other Remarks:	Purge & Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	5.4 / 20.4 L.		Purge Was Contained

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
0935									PURGE START
1020	18.0 L.	9.56	5.59	237	7.39	272	.41		
1023	19.2 L.	9.59	5.61	238	7.36	271			
1026	20.4 L.	9.60	5.63	237	7.41	270			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1832	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 6019.3	Facility #: 226-00-299	Date: 9-13-16	
SAMPLE #: GW-1833	Sept. 2016 Well Smplg	Location: Libby, MT	
	Project Name: FFS-Rem. Support	Field Pers./Comp.: David Cosgriff, Randy Cummings	
SAMPLE TIME: 0921	Site: Libby Mill Site	Inst. Calibration Date: 9-13-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: 25°F, Overcast, Calm			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	13.31' ~~13.31~~	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	57'	Groundwater Surface Elevation:	
Water Column (Feet):	43.69'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	7.1/26.8 L.	Other Remarks:	Purge + Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			Purge Contained
Actual Purge Volume (Gal.):	7.2 / 27.3 L.		

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
0875									PURGE START
0915	24.06.	9.20	4.56	239	7.37	309	6.3		
0918	26.22.	9.23	4.59	239	7.38	309			
0921	27.42.	9.25	4.62	238	7.39	308			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1833	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 6020.1	Facility #: 226-00-299	Date: 5-3-16	
SAMPLE #: GW-1834	Project Name: Sept. 2016 Well Smplg	Location: Libby, MT	
SAMPLE TIME: 1047	Site: FFS-Rem. Support / Libby Mill Site	Field Pers./Comp.: David Cosgriff, Randy Cummings	Inst. Calibration Date: 5-3-16
Well Condition: Good		If POOR - Explanation:	
Field Conditions/Weather: 52.0°F Overcast, Lt. Rain			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed) Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	8.16	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	16'	Groundwater Surface Elevation:	
Water Column (Feet):	7.84'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	1.3 / 4.96	Other Remarks:	Purge + Sample @ 400 ml/min
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	3.2 / 8.46		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1024									PURGE START
1039	6.02	15.37	6.84	346	4.54	167	2.72		
1042	7.24	15.36	6.84	346	4.55	168			
1045	8.46	15.37	6.84	346	4.57	168			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1834	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 6020.2	Facility #: 226-00-299	Date: 9-3-16	
SAMPLE #: GW-1835	Sept. 2016 Well Smplg	Location:	Libby, MT
	Project Name: FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME: 1014	Site: Libby Mill Site	Inst. Calibration Date: 9-3-16	
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	51°f, overcast, Lt. Rain		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed) Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	8.18'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	33'	Groundwater Surface Elevation:	
Water Column (Feet):	24.82'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	4.0 [illegible] 15.3	Other Remarks:	Purged & Sample @ 400 ml/m.
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	4.9 [illegible] 18.3 L		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
0927									PURGE START
1007	16.02 L.	11.52	7.03	392	2.51	174	.66		
1010	17.21 L.	11.54	7.03	392	2.50	174			
1013	18.41 L.	11.52	7.04	392	2.51	174			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1835	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 6020.3	Facility #: 226-00-299	Date: 9-7-16	
SAMPLE #: GW-1836	Sept. 2016 Well Smplg	Location: Libby, MT	
	Project Name: FFS-Rem. Support	Field Pers./Comp.: David Cosgriff, Randy Cummings	
SAMPLE TIME: 0918	Site: Libby Mill Site	Inst. Calibration Date: 9-7-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: 50°F, Overcast, Lt. Rain			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:

Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	8.21	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	51'	Groundwater Surface Elevation:	
Water Column (Feet):	42.79'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	7.0 / 26.5	Other Remarks:	Purge + Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	7.5 / 28.4 L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
0905									PURGE START
0910	26.0 L	11.03	6.49	393	2.49	191	0.75		
0913	27.2 L	11.03	6.52	393	2.49	190			
0916	28.4 L	11.03	6.51	393	2.49	190			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1836	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #:	6500.2	Facility #:	226-00-299	Date:	9-3-16
SAMPLE #:	GW-1837		Sept. 2016 Well Smplg	Location:	Libby, MT
		Project Name:	FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME:	1342	Site:	Libby Mill Site	Inst. Calibration Date:	9-3-16
Well Condition:	Good			If *POOR* - Explanation:	
Field Conditions/Weather:	61°f, Overcast, Calm				
Equipment Decontamination:	Dedicated Tubing				

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	16.97'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	101' ~~179'~~	Groundwater Surface Elevation:	
Water Column (Feet):	84.03'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	13.7/51.86.	Other Remarks:	Purge & Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	7.0/26.4L		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1235									PURGE START
1335 ~~12~~	24.02	12.44	7.28	368	.66	186	.47		
1338	25.21	12.44	7.28	368	.68	186			
1341	26.42	12.44	7.27	368	.66	186			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1837	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 6500.3	Facility #: 226-00-299	Date: 9-3-16	
SAMPLE #: GW-1838	Sept. 2016 Well Smplg	Location:	Libby, MT
	Project Name: FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME: 1227	Site: Libby Mill Site	Inst. Calibration Date: 9-3-16	
Well Condition:	(Good)	If *POOR* - Explanation:	
Field Conditions/Weather:	58°f, Overcast, Calm		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	16.78'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	~~170'~~ 155'	Groundwater Surface Elevation:	
Water Column (Feet):	138.21'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	22.5 / 85.1 L.	Other Remarks:	Purge & Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	7.0 / 26.4 L.		Purge Water Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1120									PURGE START
1220 ~~1200~~	24.0 L.	12.99	7.00	330	2.64	193	.38		
1223	25.2 L.	12.97	7.00	330	2.65	193			
1226	26.4 L.	12.96	7.00	330	2.64	193			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1838	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 6502.2	Facility #: 226-00-299	Date: 9-3-16	
SAMPLE #: GW-1839	Sept. 2016 Well Smplg	Location: Libby, MT	
	Project Name: FFS-Rem. Support	Field Pers./Comp.: David Cosgriff, Randy Cummings	
SAMPLE TIME: 1811	Site: Libby Mill Site	Inst. Calibration Date: 9-3-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: 63°F, Partial Overcast, Calm			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	18.64'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	~~152.5~~ ~~474'~~ 102.5	Groundwater Surface Elevation:	
Water Column (Feet):	83.86'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	13.7 / 51.8L	Other Remarks:	Purge + Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	7.0 / 26.4L		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1704									PURGE START
1804	24.0 L	10.40	7.54	3%	1.64	120	1.74		
1807	25.2 L	10.28	7.54	3%	1.66	120			
1810	26.4 L	10.24	7.54	3%	1.65	121			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1839	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #:	6502.3	Facility #:	226-00-299	Date:	9-7-16
SAMPLE #:	GW-1840		Sept. 2016 Well Smplg	Location:	Libby, MT
		Project Name:	FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME:	1657	Site:	Libby Mill Site	Inst. Calibration Date:	9-7-16

Well Condition: Good — If *POOR* - Explanation:

Field Conditions/Weather: 66°F, Partial Overcast, Breeze

Equipment Decontamination: Dedicated Tubing

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
3"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	~~18.64'~~ 18.92'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	~~1025'~~ 1771 152.5	Groundwater Surface Elevation:	
Water Column (Feet):	133.48'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	~~49.02~~ / 185.21	Other Remarks:	Purge & Sample @ 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	7.0 / 26.44.		Purge Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1550									PURGE START
1650	2402.	10.14	7.34	344	4.62	98	6.57		
1653	25.22.	10.12	7.34	344	4.62	98			
1656	26.44.	10.14	7.33	343	4.62	98			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1840	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 6503.1	Facility #: 226-00-299	Date: 9-27-2016	
SAMPLE #: GW-1852	Sept. 2016 Well Smplg	Location:	Libby, MT
	Project Name: FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME: 0917	Site: Libby Mill Site	Inst. Calibration Date: 9-27-16	
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	47°F, Clear, Calm		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	24.90'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	35.0'	Groundwater Surface Elevation:	
Water Column (Feet):	10.1'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	1.6/6.6L	Other Remarks:	Purge + Sample @ 400ml/mn
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	2.2/8.4L		Purge Wat Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
0855									PURGE START
0910	6.0L.	14.15	5.93	199	6.81	167	.50		
0913	7.2L.	14.17	5.96	199	6.78	161			
0916	8.4L.	14.17	5.97	199	6.75	160			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1852	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1-250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 6503.2	Facility #: 226-00-299	Date: 9/14/16	
SAMPLE #: GW-1841	Project Name: Sept. 2016 Well Smplg	Location: Libby, MT	
SAMPLE TIME: 1457	Site: FFS-Rem. Support / Libby Mill Site	Field Pers./Comp.: David Cosgriff, Randy Cummings	
		Inst. Calibration Date: 9/14/16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: 56°F Calm & Clear			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	24.85'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	136.5' ~~159'~~	Groundwater Surface Elevation:	
Water Column (Feet):	111.6	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	18.2/70.4L	Other Remarks:	Purge & Sample @ 400ML/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	6.8/26.4L		Purge Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1350									PURGE START
1450	24L	15.49	6.92	177	7.3	90.9	2.33		
1453	25.2L	15.57	6.92	177	7.27	92			
1456	26.4L	15.56	6.92	178	7.31	93.1			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1841	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 6503.3	Facility #: 226-00-299	Date: 9/14/16	
SAMPLE #: GW-1842	Sept. 2016 Well Smplg	Location: Libby, MT	
	Project Name: FFS-Rem. Support	Field Pers./Comp.: David Cosgriff, Randy Cummings	
SAMPLE TIME: 1337	Site: Libby Mill Site	Inst. Calibration Date: 9/14/16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: 55°F clear & calm			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
3"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	24.90'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	159'	Groundwater Surface Elevation:	
Water Column (Feet):	134.1	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	49.2 / 186L	Other Remarks:	Purge & sample @ 400mL/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	6.8 / 26.4L		Purge Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1230									PURGE START
1330	24L	13.37	6.99	470	2.11	54	15.62		
1333	25.2L	13.31	7.03	470	2.12	52	15.01		
1336	26.4L	13.33	7.03	470	2.13	53	16.21		

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1842	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 8006.1	Facility #: 226-00-299	Date: 9-5-16	
SAMPLE #: GW-1843	Sept. 2016 Well Smplg	Location: Libby, MT	
	Project Name: FFS-Rem. Support	Field Pers./Comp.: David Cosgriff, Randy Cummings	
SAMPLE TIME: 1222	Site: Libby Mill Site	Inst. Calibration Date: 9-5-16	
Well Condition: Good		If *POOR* - Explanation:	
Field Conditions/Weather: Lt. Overcast, Calm, 53°f			
Equipment Decontamination: Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	19.78'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	~~40~~ 40'	Groundwater Surface Elevation:	
Water Column (Feet):	20.22'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	3.3 / 12.5 L.	Other Remarks:	Purge & Sample @ 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	4.3 / 16.9 L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1140									PURGE START
1215	14.02	12.78	6.80	159	1.91	160	21.72		
1218	15.22	12.79	6.80	159	1.90	160	19.97		
1221	16.46	12.82	6.80	158	1.89	160	20.34		

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1843	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #:	9503.1	Facility #:	226-00-299	Date:	9-28-16
SAMPLE #:	GW-1845		Sept. 2016 Well Smplg	Location:	Libby, MT
		Project Name:	FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME:	1712	Site:	Libby Mill Site	Inst. Calibration Date:	9-28-16
Well Condition:		Good		**If *POOR* - Explanation:**	
Field Conditions/Weather:		Clear, Calm			
Equipment Decontamination:		Dedicated Tubing			

Casing Diameter:	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed)
2"	Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	19.39'	**Measuring Point Elev. (Feet):**	
Depth of Well (Feet):	39' ~~58'~~	**Groundwater Surface Elevation:**	
Water Column (Feet):	19.61'	**Sheen/LNAPL/DNAPL present:**	None
Casing Volume (Gallons):	3.2 / 12.1 L	**Other Remarks:**	Purge & Sample at 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	4.3 / 16.4 L.		Purge Was Collected

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1630									PURGE START
1705	14.0 L.	12.27	6.34	255	.86	-117	6.90		
1708	15.2 L.	12.23	6.35	255	.86	-117			
1711	16.4 L.	12.25	6.35	255	.86	-118			

Purging Equipment	Peristaltic Pump	**Sampling Equipment**	Dedicated Tubing	**Sample Intake Depth**	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1845	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 9503.2	Facility #: 226-00-299	Date: 9-28-16	
SAMPLE #: GW-1846	Sept. 2016 Well Smplg	Location:	Libby, MT
	Project Name: FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME: 1612	Site: Libby Mill Site	Inst. Calibration Date: 9-28-16	
Well Condition:	Good	If *POOR* - Explanation:	
Field Conditions/Weather:	Clear, Calm, 76°F.		
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter: 2"	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed) Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):	19.07'	Measuring Point Elev. (Feet):	
Depth of Well (Feet):	~~58'~~ 55'	Groundwater Surface Elevation:	
Water Column (Feet):	35.93'	Sheen/LNAPL/DNAPL present:	None
Casing Volume (Gallons):	5.9/22.3 L.	Other Remarks:	Purge & Sample @ 400 ml/m
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):	7.0/26.4 L		Purge Was Contained

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
1505									PURGE START
1605	24.0 L	12.30	6.30	267	.93	-124	5.47		
1608	25.2 L	12.24	6.30	267	.94	-124			
1611	26.4 L	12.28	6.30	267	.92	-125			

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1846	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - ~~500~~ 250 ml. Plastic/HNO3	ALS

ARROWHEAD ENGINEERING, INC.

Groundwater Sampling Field Form

WELL #: 9502.1	Facility #: 226-00-299	Date:	
SAMPLE #: GW-1844	Sept. 2016 Well Smplg	Location:	Libby, MT
	Project Name: FFS-Rem. Support	Field Pers./Comp.:	David Cosgriff, Randy Cummings
SAMPLE TIME:	Site: Libby Mill Site	Inst. Calibration Date:	
Well Condition:		**If *POOR* - Explanation:**	
Field Conditions/Weather:			
Equipment Decontamination:	Dedicated Tubing		

Casing Diameter: 2"	Casing Volume Calculation: (Pie x radius squared x height)(7.48 gallons/feet cubed) Casing Volume (gallons/feet) for: 2" = 0.163; 4" = 0.653; 6" = 1.47

Depth to Water (Feet):		**Measuring Point Elev. (Feet):**	
Depth of Well (Feet):	57'	**Groundwater Surface Elevation:**	
Water Column (Feet):		**Sheen/LNAPL/DNAPL present:**	
Casing Volume (Gallons):		**Other Remarks:**	
Calculated Purge Vol. (Gal.):			
Actual Purge Volume (Gal.):			

TIME 2400	CUMULATIVE VOLUME (Gal.)	TEMP. (Celsius)	Ph (+/- 0.1 unit)	CONDUCTIVITY (+/- 3%)	DISSOLVED OXYGEN (+/- 0.3 mg/l)	Eh (+/- 10 mv)	TURBIDITY (NTU) (+/- 10%)	WATER LEVEL	ODOR / COLOR / REMARKS
									PURGE START
		No T Sampled							
		Well Was Unable to be Accessed							

Purging Equipment	Peristaltic Pump	Sampling Equipment	Dedicated Tubing	Sample Intake Depth	Screen

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE / PRESERVATIVES	QA REMARKS
GW-1844	PAH-8270sim	1 - 1 L. Amber	ALS
	PCP-8151	1 - 40 ml. Amber	ALS
	TOTAL ARSENIC	1 - 500 ml. Plastic/HNO3	ALS

CHAIN OF CUSTODY RECORD/SAMPLE ANALYSIS REQUEST FORM

Page ___ of ___

Facility Number/Project Name: 226-00-299 Libby Mill Site - Sept Select/Annual Well Sampling

Lab Contact: Mike Funk Office: ___

Ship to: Libby Onsite Lab

Lab Contact Phone: ___

Samplers: R. Cummings/D. Cosgriff

Company Name: Arrowhead Eng Inc.

INTERNATIONAL PAPER

Sample No.	Date	Time	Matrix	Analyses Requested: PCP/PAH 8040						Extra Container	Archive	Remarks
GW-1762	08/28	1607	GW	X						X		Sample/MS/MSD
FD-0087	08/28	1607	GW	X								
GW-1804	08/28	1437	GW	X								
GW-1799	08/27	1647	GW	X								
GW-1800	08/27	1526	GW	X								
GW-1802	08/27	1002	GW	X								
GW-1803	08/27	0827	GW	X								
~~FD~~												

Matrix Code: GW - Groundwater SL - Soil SD - Sediment SW - Surface water
OTHER - Please identify codes ___

Priority: ☒ Normal ☐ Rush Rush time period ___

Shipped via: ☐ FedEx/UPS ☐ Courier Airbill Hand Del.

Condition of Samples Upon Receipt: ___

Custody Seal Intact: ☐ Yes ☐ No ☐ None

Relinquished by: [signature] (Signature) Date/Time: 08/28/16 1900 Received by: [signature] (Signature) Date/Time: 8/25/16 1900

Company: AEI Company: ___

Relinquished by: ___ (Signature) Date/Time: ___ Received by: ___ (Signature) Date/Time: ___

Company: ___ Company: ___

Distribution: White and Yellow Copies - Accompany Shipment; Pink Copy - Project File

Cooler #1

CHAIN OF CUSTODY RECORD/SAMPLE ANALYSIS REQUEST FORM

Page ___ of ___

Facility Number/Project Name: 226-00-299 Libby Mill Site - Sept. Select/Annual Well Sampling

Lab Contact: Chris Leaf Office: ___

Ship to: AES Eak
1317 S. 13th Ave
Kelso WA 98626

Lab Contact Phone: 360-577-7222

Samplers: R. Cummings/D. Cosgriff

Company Name: Arrowhead Eng. Inc.

INTERNATIONAL PAPER

Sample No.	Date	Time	Matrix	PAH 8270 Sim	PCP 8151	Total Arsenic				Extra Container	Archive	Remarks
GW-1761	8/28	1724	GW	X	X	X						
GW-1789	"	1839	"	X	X	X						
GW-1776	8/26	1247	"	X	X	X						
GW-1780	"	1655	"	X	X	X						
GW-1777	"	1122	"	X	X	X						
GW-1779	"	1817	"	X	X	X						
GW-1775	"	1330	"	X	X	X						
GW-1778	"	1537	"	X	X	X						
												Rpt. 4 Inv.
												David Cosgriff
												Arrowhead Eng. Inc
												PO Box 843
												Libby, MT 59923
												406-293-1011

Matrix Code: GW - Groundwater SL - Soil SD - Sediment SW - Surface water
OTHER - Please identify codes ___

Priority: [X] Normal [ ] Rush Rush time period ___

Shipped via: [X] FedEx/UPS [ ] Courier Airbill 8103-9520-1702

Condition of Samples Upon Receipt: ___

Custody Seal Intact: [ ] Yes [ ] No [ ] None

Relinquished by: [signature] (Signature) Date/Time: 8-29-16 1100 Received by: ___ (Signature) Date/Time: ___
Company: ___ Company: ___

Relinquished by: ___ (Signature) Date/Time: ___ Received by: ___ (Signature) Date/Time: ___
Company: ___ Company: ___

Distribution: White and Yellow Copies - Accompany Shipment; Pink Copy - Project File

Cooler #2

CHAIN OF CUSTODY RECORD/SAMPLE ANALYSIS REQUEST FORM

Page ___ of ___

Facility Number/Project Name: 326-RD-399 Libby Mill Site - Spot Select/Annual Well Sampling

Lab Contact: ChemTech Office: ___

Ship to: ALS Env
1317 S. 13th Ave
Kelso WA 98626

Lab Contact Phone: 360-577-7222

Samplers: R. Cummings / D. Casagrit.

Company Name: Arrowhead Eng, Inc.

Analyses Requested

Sample No.	Date	Time	Matrix	PAH 8270 sim	PCP 8151	Total Arsenic				Extra Container	Archive	Remarks
GW-1762	8/28	1607	GW	X	X	—				X		Sample/MS/MSD
GW-1762	"	"	"	—	—	X						
FD-0087	"	"	"	X	X	X						
GW-1804	"	1437	"	X	X	X						
GW-1799	8-27	1442	"	X	X	X						
GW-1810	"	1747	"	X	X	X						

Matrix Code: GW - Groundwater SL - Soil SD - Sediment SW - Surface water
OTHER - Please identify codes ___

Priority: ☑ Normal ☐ Rush Rush time period ___

Shipped via: ☒ FedEx/UPS ☐ Courier Airbill ___

Condition of Samples Upon Receipt: ___

Custody Seal Intact: ☐ Yes ☐ No ☐ None

Relinquished by: [signature] (Signature) Date/Time: 8-29-16 1600 Received by: ___ (Signature) Date/Time: ___

Company: AET Company: ___

Relinquished by: ___ (Signature) Date/Time: ___ Received by: ___ (Signature) Date/Time: ___

Company: ___ Company: ___

Distribution: White and Yellow Copies - Accompany Shipment; Pink Copy - Project File

Dept. 7 Inv.
David Casagrit
Arrowhead Eng Inc
PO Box 848
Libby, MT 59923
406-293-7011

Cooler #3

CHAIN OF CUSTODY RECORD/SAMPLE ANALYSIS REQUEST FORM

Page ___ of ___

Facility Number/Project Name: 226-00-000 ~~Sept~~ Libby Mill Site - Sept Select/Annual Well Smplg

Lab Contact: Chris Leaf Office: ___

Ship to: ALS Env
1317 S. 13th Ave
Kelso WA 98626

Lab Contact Phone: 360-577-7222

Samplers: R. Cummings/D Cosgriff

Company Name: Arrowhead Eng. Inc.

INTERNATIONAL PAPER

Analyses Requested

Sample No.	Date	Time	Matrix	PAH 8270 Sim	PCP 8151	Total Arsenic				Extra Container	Archive	Remarks
GW-1803	8-27	0827	GW	X	X	—				X		Sample/MS/MSD
GW-1803	"	"	"	—	—	X						
FD-0092	"	"	"	X	X	X						
GW-1819	"	1227	"	X	X	X						
GW-1801	"	1052	"	X	X	X						
GW-1802	"	1002	"	X	X	X						
												Rpt. & Inv.
												David Cosgriff
												Arrowhead Eng Inc
												PO Box 243
												Libby, MT 59923
												406-293-1011

Matrix Code: GW - Groundwater SL - Soil SD - Sediment SW - Surface water
OTHER - Please identify codes ___

Priority: ☑ Normal ☐ Rush Rush time period ___

Shipped via: ☑ FedEx/UPS ☐ Courier Airbill 8103-9520-1687

Condition of Samples Upon Receipt: ___

Custody Seal Intact: ☐ Yes ☐ No ☐ None

Relinquished by: [signature] (Signature) Date/Time: 8-29-16 1100 Received by: ___ (Signature) Date/Time: ___

Company: AEI Company: ___

Relinquished by: ___ (Signature) Date/Time: ___ Received by: ___ (Signature) Date/Time: ___

Company: ___ Company: ___

Distribution: White and Yellow Copies - Accompany Shipment; Pink Copy - Project File

Cooler #4

CHAIN OF CUSTODY RECORD/SAMPLE ANALYSIS REQUEST FORM

Page ___ of ___

Facility Number/Project Name: 226-00-000 Libby Mill Site - Sept Select/Annual Well Sampling

Lab Contact: Chris Leaf Office: ___

Ship to: AIS Env
1317 S. 13th Ave
Kelso WA 98626

Lab Contact Phone: 360-577-7222

Samplers: R. Cummings / D. Cosgriff

Company Name: Arrowhead Eng. Inc

INTERNATIONAL PAPER

Sample No.	Date	Time	Matrix	PAH 8270 Sim	PCP 8151	Total Arsenic				Extra Container	Archive	Remarks
GW-1818	8-27	1322	GW	X	X	X						
GW-1817	"	1358	"	X	X	X						
GW-1821	"	1845	"	X	X	X						
GW-1798	"	1715	"	X	X	X						
GW-1800	"	1526	"	X	X	X						
GW-1822	"	1954	"	X	X	X						
												Rpt. + Inv.
												David Cosgriff
												Arrowhead Eng Inc
												PO Box 843
												Libby, MT 59923
												406-293-1011

Matrix Code: GW - Groundwater SL - Soil SD - Sediment SW - Surface water
OTHER - Please identify codes ___

Priority: ☑ Normal ☐ Rush Rush time period ___

Shipped via: ☑ FedEx/UPS ☐ Courier Airbill 8103-9520-1676

Condition of Samples Upon Receipt: ___

Custody Seal Intact: ☐ Yes ☐ No ☐ None

Relinquished by: [signature] (Signature) Date/Time: 8-28-16 1100 Received by: ___ (Signature) Date/Time: ___

Company: AE# Company: ___

Relinquished by: ___ (Signature) Date/Time: ___ Received by: ___ (Signature) Date/Time: ___

Company: ___ Company: ___

Distribution: White and Yellow Copies - Accompany Shipment; Pink Copy - Project File

Cooler #5

CHAIN OF CUSTODY RECORD/SAMPLE ANALYSIS REQUEST FORM

Page ___ of ___

Facility Number/Project Name: 226-00-299 Libby, MT Mill Site - Sept. Select/Annual Well Sampling

Lab Contact: Chain Lab Office: ___

Ship to: ALS Env.
1317 S 13th Ave
Kelso, WA 98626

Lab Contact Phone: 360-577-7222

Samplers: K. Cummings / D. Cosgriff

Company Name: Arcadis Eng. Inc.

Sample No.	Date	Time	Matrix	PAH 8270 SIM	DCP 8151	Total Arsenic				Extra Container	Archive	Remarks
GW-1774	9-5	1127	GW	X	X	X						
GW-1752	"	1507	"	X	X	X						
GW-1813	"	1222	"	X	X	X						
GW-1815	"	1027	"	X	X	X						
GW-1816	"	0937	"	X	X	X						
GW-1814	"	1107	"	X	X	X						
GW-1782	"	1442	"	X	X	X						
GW-1773	"	1402	"	X	X	X						
												Rpt + Inv.
												David Cosgriff
												Arcadis Eng Inc
												PO Box 245
												Libby, MT 59923
												293-1011

Matrix Code: GW - Groundwater SL - Soil SD - Sediment SW - Surface water
OTHER - Please identify codes ___

Priority: ☒ Normal ☐ Rush Rush time period ___

Shipped via: ☐ FedEx/UPS ☐ Courier Airbill 9183-9510-1746

Condition of Samples Upon Receipt: ___

Custody Seal Intact: ☐ Yes ☐ No ☐ None

Relinquished by: ___ (Signature) Date/Time: Sept. 6 '16

Company: AET

Received by: ___ (Signature) Date/Time: ___

Company: ___

Relinquished by: ___ (Signature) Date/Time: ___

Company: ___

Received by: ___ (Signature) Date/Time: ___

Company: ___

Distribution: White and Yellow Copies - Accompany Shipment; Pink Copy - Project File

Cooler # 6

CHAIN OF CUSTODY RECORD/SAMPLE ANALYSIS REQUEST FORM

Page ___ of ___

Facility Number/Project Name: 226-00-259 Libby Mill Site - Sept. Select/Annual Well Sampling

Lab Contact: Chris Leaf / Office: ___

Ship to: ALS Env.
1317 S. 13 Ave
Kelso Wa. 98626

Lab Contact Phone: 360-577-7222

Samplers: D. Cosariff, R. Cummings

Company Name: Arrowhead Env. Inc

Analyses Requested

Sample No.	Date	Time	Matrix	PAH 8270 SIM	PCP 8151	Tot. Arsenic				Extra Container	Archive	Remarks
GW-1781	9-5	1751	GW	X	X	X						
GW-1835	9-7	1014	"	X	X	X						
GW-1834	"	1047	"	X	X	X						
GW-1830	"	1512	"	X	X	X						
GW-1837	"	1342	"	X	X	X						
GW-1838	"	1327	"	X	X	X						
GW-1839	"	1811	"	X	X	X						
												Rst. & Inv
												David Cosariff
												Arrowhead Env
												P.O. Bx. 543 &
												Libby, MT 59923
												406-293-1011

Matrix Code: GW - Groundwater SL - Soil SD - Sediment SW - Surface water
OTHER - Please identify codes ___

Priority: ☒ Normal ☐ Rush Rush time period ___

Shipped via: ☒ FedEx/UPS ☐ Courier Airbill 8103 9520 1775

Condition of Samples Upon Receipt: ___

Custody Seal Intact: ☐ Yes ☐ No ☐ None

Relinquished by: [signature] (Signature) Date/Time: 9-6-12 1200
Company: RET

Received by: ___ (Signature) Date/Time: ___
Company: ___

Relinquished by: ___ (Signature) Date/Time: ___
Company: ___

Received by: ___ (Signature) Date/Time: ___
Company: ___

Distribution: White and Yellow Copies - Accompany Shipment; Pink Copy - Project File

Cooler # 7

CHAIN OF CUSTODY RECORD/SAMPLE ANALYSIS REQUEST FORM

Page ___ of ___

Facility Number/Project Name: 226-00-299 Libby Mill Site - Spot Select / Annual Well Sampling

Lab Contact: Chris Leaf Office: ___

Ship to: ALS Env.
1317 S. 13th Ave
Kelso, Wa. 98626

Lab Contact Phone: 360-577-7222

Samplers: D. Cosgriff / R. Cummings

Company Name: Arrowhead Engr Inc

INTERNATIONAL PAPER

Analyses Requested

Sample No.	Date	Time	Matrix	PAH 8270 SIM	PCP 8151	Tot. Arsenic				Extra Container	Archive	Remarks
GW-1819	9-3	1542	GW	X	X	X						
GW-1756	"	2137	"	X	X	X						
GW-1640	"	1457	"	X	X	X						
GW-1753	"	1851	"	X	X	X						
GW-1748	"	2017	"	X	X	X						
GW-1743	"	1927	"	X	X	X						
GW-1836	"	0918	"	X	X	X						
												Rpt. + Inv.
												David Cosgriff Arrowhead Eng. P.O. Box 893 Libby, MT 59923 406-293-1011

Matrix Code: GW - Groundwater SL - Soil SD - Sediment SW - Surface water
OTHER - Please identify codes ___

Priority: ☒ Normal ☐ Rush Rush time period ___

Shipped via: ☒ FedEx/UPS ☐ Courier Airbill 8103 9[illegible] 1734

Condition of Samples Upon Receipt: ___

Custody Seal Intact: ☐ Yes ☐ No ☐ None

Relinquished by: [signature] (Signature) Date/Time: 9-6-11 1200 Received by: ___ (Signature) Date/Time: ___

Company: DEQ Company: ___

Relinquished by: ___ (Signature) Date/Time: ___ Received by: ___ (Signature) Date/Time: ___

Company: ___ Company: ___

Distribution: White and Yellow Copies - Accompany Shipment; Pink Copy - Project File

Cooler #8

CHAIN OF CUSTODY RECORD/SAMPLE ANALYSIS REQUEST FORM

Page ___ of ___

Facility Number/Project Name: 226-00-299 Libby Mill Site / Syst - Annual Well Sampling

Lab Contact: Chris Leaf Office: ___

Ship to: ALS Env
1317 13th Ave. S
Kelso, Wa 98626

Lab Contact Phone: 360-577-7222

Samplers: R. Cummings / D. Cosgriff

Company Name: Arrowhead Eng.

INTERNATIONAL PAPER

Sample No.	Date	Time	Matrix	PAH 8270 SIM	PCP 8151	Total Arsenic				Extra Container	Archive	Remarks
GW-1810	9-14	0922	GW	X	X	X						
GW-1842	"	1337	"	X	X	X						
GW-1841	"	1457	"	X	X	X						
GW-1809	"	1022	"	X	X	X						
FD-0093	"	1057	"	X	X	X						
GW-1808	"	"	"	X	X	X				X		Sample/MS/MSD On PAH/PCP
												Rpt. & Inv.
												David Cosgriff
												Arrowhead Eng.
												P.O. Box 843
												Libby MT 59913
												406-293-1011

Matrix Code: GW - Groundwater SL - Soil SD - Sediment SW - Surface water
OTHER - Please identify codes ___

Priority: ☒ Normal ☐ Rush Rush time period ___

Shipped via: ☒ FedEx/UPS ☐ Courier Airbill 8603 9520 1780

Condition of Samples Upon Receipt: ___

Custody Seal Intact: ☐ Yes ☐ No ☐ None

Relinquished by: [signature] (Signature) Date/Time: 9-15-16 1200 Received by: ___ (Signature) Date/Time: ___

Company: AEI Company: ___

Relinquished by: ___ (Signature) Date/Time: ___ Received by: ___ (Signature) Date/Time: ___

Company: ___ Company: ___

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Cooler #9

CHAIN OF CUSTODY RECORD/SAMPLE ANALYSIS REQUEST FORM

Page ___ of ___

Facility Number/Project Name: 226-00-299 Libby Mill Site - Sept / Annual Well Sampling

Lab Contact: Chris Leaf Office: ____

Ship to: ALS Env.
1317 13th Ave. S.
Kelso, Wa. 98626

Lab Contact Phone: 360-577-7222

Samplers: R. Cummings / D. Cosgriff

Company Name: Arrowhead Env.

INTERNATIONAL PAPER

Sample No.	Date	Time	Matrix	PAH 8270 S/M	PCP 8151	Total Arsenic				Extra Container	Archive	Remarks
GW-1831	9-13	0807	GW	X	X	X						
GW-1825	"	1157	"	X	X	X						
GW-1812	"	1514	"	X	X	X						
GW-1833	"	0921	"	X	X	X						
FD-0094	"	1632	"	X	X	X						
GW-1813	"	"	"	X	X	X				X		Sample/MS/MSD On PAH/PCP
												Rpt. & Inv. David Cosgriff Arrowhead Eng. P.O. Bx. 843 Libby Mt 59923 406-293-1011

Matrix Code: GW - Groundwater SL - Soil SD - Sediment SW - Surface water
OTHER - Please identify codes ____

Priority: ☒ Normal ☐ Rush Rush time period ____

Shipped via: ☒ FedEx/UPS ☐ Courier Airbill 8103 9520 1749

Condition of Samples Upon Receipt: ____

Custody Seal Intact: ☐ Yes ☐ No ☐ None

Relinquished by: [signature] (Signature) Date/Time: 9-15-16 Received by: ____ (Signature) Date/Time: ____
Company: AEI Company: ____

Relinquished by: ____ (Signature) Date/Time: ____ Received by: ____ (Signature) Date/Time: ____
Company: ____ Company: ____

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Cooler # 10

CHAIN OF CUSTODY RECORD/SAMPLE ANALYSIS REQUEST FORM

Page ___ of ___

Facility Number/Project Name: 226-00-299 Libby Mill Site - Sept./Annual Well Sampling

Lab Contact: Chris Leaf Office: ___

Ship to: ALS Env.
1317 13th Ave. S.
Kelso, Wa 98626

Lab Contact Phone: 360-577-7222

Samplers: R. Cummings/ D. Colgrift

Company Name: Arrowhead Eng.

INTERNATIONAL PAPER

Sample No.	Date	Time	Matrix	PAH 8270 SIM	PCP 8151	Total Arsenic				Extra Container	Archive	Remarks
				Analyses Requested								
GW-1811	9-13	1418	GW	X	X	X						
GW-1823	"	1232	"	X	X	X						
GW-1832	"	1027	"	X	X	X						
FD-0095	"	1332	"	X	X	X						
GW-1824	"	1332	"	X	X	X				X		Sample/MS/MSD on PAH/PCP
												Ryt. Env. David Colgrift Arrowhead Eng. P.O. Box. 643 Libby MT. 59923 406-293-1011

Matrix Code: GW - Groundwater SL - Soil SD - Sediment SW - Surface water
OTHER - Please identify codes ___

Priority: ☒ Normal ☐ Rush Rush time period ___

Shipped via: ☒ FedEx/UPS ☐ Courier Airbill 8103 9520 1779

Condition of Samples Upon Receipt: ___

Custody Seal Intact: ☐ Yes ☐ No ☐ None

Relinquished by: ___ (Signature) Date/Time: 9-15-16 1200

Company: ___

Received by: ___ (Signature) Date/Time: ___

Company: ___

Relinquished by: ___ (Signature) Date/Time: ___

Company: ___

Received by: ___ (Signature) Date/Time: ___

Company: ___

Distribution: White and Yellow Copies - Accompany Shipment; Pink Copy - Project File

Cooler #1

CHAIN OF CUSTODY RECORD/SAMPLE ANALYSIS REQUEST FORM

Page ___ of ___

Facility Number/Project Name: 226-30-299 Libby Mill Site - Sept./Annual Well Samplings

Lab Contact: Chris Leaf Office: ___

Ship to: AIS Env.
1217 S. 13th Ave.
Kelso, Wa. 98626

Lab Contact Phone: 360-577-7221

Samplers: R. Cummings / D. Cosgriff

Company Name: Arrowhead Eng.

INTERNATIONAL PAPER

Sample No.	Date	Time	Matrix	PAH 8270 SIM	PCP 8151	Total Arsenic				Extra Container	Archive	Remarks
GW-1786	9-20	1359	GW	X	X	X						
GW-1785	9-20	1537	"	X	X	—				X		Sample/MS/MSD
GW-1785	"	"	"	—	—	X						
FD-0089	"	"	"	X	X	X						
GW-1788	"	1327	"	X	X	X						
GW-1784	"	1642	"	X	X	X						
GW-1757	"	1842	"	X	X	X						
												Rpt. & Inv.
												David Cosgriff
												Arrowhead Eng.
												P.O. Box. 843
												Libby MT. 59923
												406 293-7011

Matrix Code: GW - Groundwater SL - Soil SD - Sediment SW - Surface water
OTHER - Please identify codes ___

Priority: ☑ Normal ☐ Rush Rush time period ___

Shipped via: ☑ FedEx/UPS ☐ Courier Airbill 8103 9520 1790

Condition of Samples Upon Receipt: ___

Custody Seal Intact: ☐ Yes ☐ No ☐ None

Relinquished by: [signature] (Signature) Date/Time: 9-22-16 1100 Received by: ___ (Signature) Date/Time: ___

Company: AES Company: ___

Relinquished by: ___ (Signature) Date/Time: ___ Received by: ___ (Signature) Date/Time: ___

Company: ___ Company: ___

Distribution: White and Yellow Copies - Accompany Shipment; Pink Copy - Project File

Cooler # 12

CHAIN OF CUSTODY RECORD/SAMPLE ANALYSIS REQUEST FORM

Page ___ of ___

Facility Number/Project Name: 226-00-299 Libby Mill Site - Sept./Annual Well Sampling

Lab Contact: Chris Leaf Office: ___

Ship to: ALS Env.
1317 S. 13th Ave
Kelso, Wa. 98626

Lab Contact Phone: 360-577-7222

Samplers: R. Cummings / D. Cosgriff

Company Name: Arrowhead Env.

INTERNATIONAL PAPER

Sample No.	Date	Time	Matrix	PAH 8270 SIM	PCP 8151	Total Arsenic				Extra Container	Archive	Remarks
GW-1766	9-21	1753	GW	X	X	X						
GW-1769	"	1353	"	X	X	X						
GW-1770	"	1322	"	X	X	X						
GW-1772	"	1532	"	X	X	X						
FD-0088	"	1607	"	X	X	X						
GW-1771	"	"	"	X	X	—				X		Sample/MS/MSD
GW-1771	"	"	"	—	—	X						

Rpt. & Inv.
David Cosgriff
Arrowhead Env.
P.O. Box. 843
Libby, MT. 59923
406 293-1011

Matrix Code: GW - Groundwater SL - Soil SD - Sediment SW - Surface water
OTHER - Please identify codes ___

Priority: [X] Normal [ ] Rush Rush time period ___

Shipped via: [X] FedEx/UPS [ ] Courier Airbill 8103 9520 1816

Condition of Samples Upon Receipt: ___

Custody Seal Intact: [ ] Yes [ ] No [ ] None

Relinquished by: [signature] Date/Time: 9-22-16 1100 Received by: ___ (Signature) Date/Time: ___

Company: AEL Company: ___

Relinquished by: ___ (Signature) Date/Time: ___ Received by: ___ (Signature) Date/Time: ___

Company: ___ Company: ___

Distribution: White and Yellow Copies - Accompany Shipment; Pink Copy - Project File

Cooler #13

CHAIN OF CUSTODY RECORD/SAMPLE ANALYSIS REQUEST FORM

Page ___ of ___

Facility Number/Project Name: 275-00-299 Libby Mill Site - Seat / Annual Well Sampling

Lab Contact: Chris Leaf V Office: ___

Ship to: ALS Env
1317 S 13th Ave.
Kelso, Wa 98626

Lab Contact Phone: 360-577-7222

Samplers: R. Cummings / D. Cosgriff

Company Name: Arrowhead Eng.

INTERNATIONAL PAPER

Sample No.	Date	Time	Matrix	PAH 8270 SIM	PCP 8151	Total Arsenic				Extra Container	Archive	Remarks
GW-1805	9-20	1012	GW	X	X	X						
GW-1806	"	1102	"	X	X	X						
GW-FB1787	"	1212	"	X	X	X						
GW-1783	"	1717	"	X	X	X						
GW-1807	"	0938	"	X	X	X						
FD-0085	9-21	1657	"	X	X	X						
GW-1755	"	"	"	X	X					X		Sample/MS/MSD
GW-1755	"	"	"			X						

Rpt. + Inv.
David Cosgriff
Arrowhead Eng.
P.O. Box 843
Libby MT. 59923
406-293-1911

Matrix Code: GW - Groundwater SL - Soil SD - Sediment SW - Surface water
OTHER - Please identify codes ___

Priority: ☑ Normal ☐ Rush Rush time period ___

Shipped via: ☑ FedEx/UPS ☐ Courier Airbill 8103 9520 1805

Condition of Samples Upon Receipt: ___

Custody Seal Intact: ☐ Yes ☐ No ☐ None

Relinquished by: ___ (Signature) Date/Time: 9-22-16 1120 Received by: ___ (Signature) Date/Time: ___

Company: AET Company: ___

Relinquished by: ___ (Signature) Date/Time: ___ Received by: ___ (Signature) Date/Time: ___

Company: ___ Company: ___

Distribution: White and Yellow Copies - Accompany Shipment; Pink Copy - Project File

Cooler # 14

CHAIN OF CUSTODY RECORD/SAMPLE ANALYSIS REQUEST FORM

Page ___ of ___

Facility Number/Project Name: 276-00-299 Libby Mill Site - Sept. / Annual Well Sampling

Lab Contact: Chris L 406 Office: ___

Ship to: ALS Env.
1317 S. 13th Ave
Kelso, Wa. 98626

Lab Contact Phone: 360-577-7222

Samplers: R. Cummings / D. Losgriff

Company Name: Arrowhead Env

Analyses Requested

Sample No.	Date	Time	Matrix	PAH 8270 SIM	PCP 8151	Total Arsenic	Extra Container	Archive	Remarks
GW-1790	9-23	1637	GW	X	X	—	X		Sample / MS / MSD
GW-1790	"	"	"	—	—	X			
FD-0090	"	"	"	X	X	X			
GW-1792	"	1451	"	X	X	X			
GW-1791	"	1557	"	X	X	X			

Rpt. & Inv.
David Losgriff
Arrowhead Env.
P.O. Box. 843
Libby, MT. 59923
406-293-1011

Matrix Code: GW - Groundwater SL - Soil SD - Sediment SW - Surface water
OTHER - Please identify codes ___

Priority: ☑ Normal ☐ Rush Rush time period ___

Shipped via: ☐ FedEx/UPS ☐ Courier Airbill 8103 9520 1850

Condition of Samples Upon Receipt: ___

Custody Seal Intact: ☐ Yes ☐ No ☐ None

Relinquished by: ___ (Signature) Date/Time: 9-26-16 1200 Received by: ___ (Signature) Date/Time: ___

Company: AET Company: ___

Relinquished by: ___ (Signature) Date/Time: ___ Received by: ___ (Signature) Date/Time: ___

Company: ___ Company: ___

Distribution: White and Yellow Copies - Accompany Shipment; Pink Copy - Project File

Cooler #15

CHAIN OF CUSTODY RECORD/SAMPLE ANALYSIS REQUEST FORM

Page ___ of ___

Facility Number/Project Name: 226-20-299 Libby Mill Site - Sept./Annual Well Sampling

Lab Contact: Chris Leaf Office: ___

Ship to: ALS Env.
1317 S. 13th Ave.
Kelso, Wa. 98626

Lab Contact Phone: 360-577-7222

Samplers: R. Cummings / D. Cosgriff

Company Name: Arrowhead Enc!

Analyses Requested

Sample No.	Date	Time	Matrix	PAH 8270 SIM	PCP 8151	Total Arsenic				Extra Container	Archive
GW-1828	9-23	0852	GW	X	X	X					
GW-1824	"	1037	"	X	X	X					
GW-1796	"	1312	"	X	X	X					
GW-1827	"	0952	"	X	X	X					
GW-1797	"	1222	"	X	X	X					
GW-1737	9-24	1226	"	X							

INTERNATIONAL PAPER

Remarks

Rpt. & Inv.
David Cosgriff
Arrowhead Eng
P.O. Bx. 843
Libby, MT. 59923
406 293 1011

Matrix Code: GW - Groundwater SL - Soil SD - Sediment SW - Surface water
OTHER - Please identify codes ___

Priority: ☒ Normal ☐ Rush Rush time period ___

Shipped via: ☑ FedEx/UPS ☐ Courier 8123 Airbill 9510 1849

Condition of Samples Upon Receipt: ___

Custody Seal Intact: ☐ Yes ☐ No ☐ None

Relinquished by: [signature] (Signature) Date/Time: 9-26-16 1200 Received by: ___ (Signature) Date/Time: ___

Company: AEL Company: ___

Relinquished by: ___ (Signature) Date/Time: ___ Received by: ___ (Signature) Date/Time: ___

Company: ___ Company: ___

Distribution: White and Yellow Copies - Accompany Shipment; Pink Copy - Project File

Cooler # 16

CHAIN OF CUSTODY RECORD/SAMPLE ANALYSIS REQUEST FORM

Page ___ of ___

Facility Number/Project Name: 126-00-299 Libby Mill Site - Sept./Annual Well Sampling

Lab Contact: Chris Leaf Office: ___

Ship to: RLS Envir.
1317 S. 13th Ave.
Kelso, Wa. 98626

Lab Contact Phone: 360-577-7222

Samplers: R Cummings / David Cosgriff

Company Name: Arrowhead Env

Analyses Requested

Sample No.	Date	Time	Matrix	PAH 8270 SIM	PCP 8151	Total Arsenic				Extra Container	Archive	Remarks
RB-0014	9-23	0852	GW	X	X	X						
GW-1760	9-24	1552	"	X	X					X		Sample/MS/MSD
GW-1760	"	"	"	~	~	X						
FD-0086	"	"	"	X	X	X						
GW-1765	"	2011	"	X	X	X						
GW-1758	"	1742	"	X	X	X						
GW-1759	"	1707	"	X	X	X						

Rpt. & Inv. to:
David Cosgriff
Arrowhead Env.
P.O. Box 843
Libby, MT. 59923
406-293-1011

Matrix Code: GW - Groundwater SL - Soil SD - Sediment SW - Surface water
OTHER - Please identify codes ___

Priority: ☑ Normal ☐ Rush Rush time period ___

Shipped via: ☑ FedEx/UPS ☐ Courier Airbill 8103 9520 1838

Condition of Samples Upon Receipt: ___

Custody Seal Intact: ☐ Yes ☐ No ☐ None

Relinquished by: R K JS (Signature) Date/Time: 8-24-16 1200 Received by: ___ (Signature) Date/Time: ___

Company: AET Company: ___

Relinquished by: ___ (Signature) Date/Time: ___ Received by: ___ (Signature) Date/Time: ___

Company: ___ Company: ___

Distribution: White and Yellow Copies - Accompany Shipment; Pink Copy - Project File

Cooler #17

CHAIN OF CUSTODY RECORD/SAMPLE ANALYSIS REQUEST FORM

Page ___ of ___

Facility Number/Project Name: 226-00-299 Libby Mill Site - Annual/Sept. Well Sampling

Lab Contact: Chris Leaf Office: ___

Ship to: ALS Env
1317 S. 13th Ave.
Kelso, Wa 98626

Lab Contact Phone: 360-577-7222

Samplers: R. Cummings / D. Cosgriff

Company Name: Arrowhead Eng.

INTERNATIONAL PAPER

Sample No.	Date	Time	Matrix	PAH 8270 SIM	PCP 8151	Total Arsenic				Extra Container	Archive	Remarks
GW-1794	9-24	0832	GW	X	X	—				X		Sample/MS/MSD
GW-1794	"	"	"			X						
FD-0091	"	"	"	X	X	X						
GW-1793	"	1012	"	X	X	X						
GW-1795	"	0826	"	X	X	X						
GW-1851	"	1419	"	X	X	X						
GW-1767	"	1906	"	X	X	X						
												Rpt. + Inv. - David Cosgriff Arrowhead Eng. P.O. Box 843 Libby, MT 59923 406-293-1011

Matrix Code: GW - Groundwater SL - Soil SD - Sediment SW - Surface water
OTHER - Please identify codes ___

Priority: ☒ Normal ☐ Rush Rush time period ___

Shipped via: ☒ FedEx/UPS ☐ Courier Airbill 8103 9520 1827

Condition of Samples Upon Receipt: ___

Custody Seal Intact: ☐ Yes ☐ No ☐ None

Relinquished by: [signature] (Signature) Date/Time: 9-26-16 1200 Received by: ___ (Signature) Date/Time: ___

Company: AEI Company: ___

Relinquished by: ___ (Signature) Date/Time: ___ Received by: ___ (Signature) Date/Time: ___

Company: ___ Company: ___

Distribution: White and Yellow Copies - Accompany Shipment; Pink Copy - Project File

Cooler #18

CHAIN OF CUSTODY RECORD/SAMPLE ANALYSIS REQUEST FORM

Page ___ of ___

Facility Number/Project Name: 226-00-299 Libby Mill Site - Sept./Annual Well Sampling

Lab Contact: Chris Heck Office: ___

Ship to: ALS Env
1317 S 13th Ave.
Kelso, Wa. 98626

Lab Contact Phone: 360-577-7222

Samplers: R. Cummings / D. Cosgriff

Company Name: Arrowhead Env.

INTERNATIONAL PAPER

Sample No.	Date	Time	Matrix	PAH 8270 SIM	PCP 8151	Total Arsenic				Extra Container	Archive	Remarks
GW-1845	9-28	1712	GW	X	X	X						
GW-1846	"	1612	"	X	X	X						
GW-1852	9-27	0917	"	X	X	X						
GW-1764	"	1051	"	X	X	X						
GW-1859	"	1522	"	X	X	X						
GW-1861	"	1327	"	X	X	X						
												RPT. TO: David Cosgriff Arrowhead Env. P.O. Box 843 Libby, MT 59923 406-293-7011

Matrix Code: GW - Groundwater SL - Soil SD - Sediment SW - Surface water
OTHER - Please identify codes ___

Priority: ☒ Normal ☐ Rush Rush time period ___

Shipped via: ☒ FedEx/UPS ☐ Courier Airbill 8103 9520 1871

Condition of Samples Upon Receipt: ___

Custody Seal Intact: ☐ Yes ☐ No ☐ None

Relinquished by: ___ (Signature) Date/Time: 9-29-16 1800

Company: AEI

Received by: ___ (Signature) Date/Time: ___

Company: ___

Relinquished by: ___ (Signature) Date/Time: ___

Company: ___

Received by: ___ (Signature) Date/Time: ___

Company: ___

Distribution: White and Yellow Copies - Accompany Shipment; Pink Copy - Project File

Cooler #19

CHAIN OF CUSTODY RECORD/SAMPLE ANALYSIS REQUEST FORM

Page ___ of ___

Facility Number/Project Name: 226-00-299 Libby Mill Site - Sept/Annual Well Sampling

Lab Contact: Chris Leat Office: ___

Ship to: ALS-Env
1317 S. 13th Ave
Kelso, Wa. 98626

Lab Contact Phone: 360-577-7222

Samplers: R. Cummings / D. Cosgriff

Company Name: Arrowhead Env

INTERNATIONAL PAPER

Analyses Requested

Sample No.	Date	Time	Matrix	PAH 8270 SIM	PCP 8151	Total Arsenic				Extra Container	Archive	Remarks
GW-1840	9-27	1437	GW	X	X	X						
GW-1856	"	1747	"	X	X	X						
GW-1858	"	1702	"	X	X	X						
GW-1857	9-28	0857	"	X	X	X						
GW-1853	"	1131	"	X	X	X						
GW-1855	"	1047	"	X	X	X						

Rpt & Inv
David Cosgriff
Arrowhead Env
P.O. Box 843
Libby, MT. 59923
406-293-1011

Matrix Code: GW - Groundwater SL - Soil SD - Sediment SW - Surface water
OTHER - Please identify codes ___

Priority: ☒ Normal ☐ Rush Rush time period ___

Shipped via: ☒ FedEx/UPS ☐ Courier Airbill 8103 9520 1860

Condition of Samples Upon Receipt: ___

Custody Seal Intact: ☐ Yes ☐ No ☐ None

Relinquished by: [signature] (Signature) Date/Time: 9-29-16 1300 Received by: ___ (Signature) Date/Time: ___
Company: AEI Company: ___

Relinquished by: ___ (Signature) Date/Time: ___ Received by: ___ (Signature) Date/Time: ___
Company: ___ Company: ___

Distribution: White and Yellow Copies - Accompany Shipment; Pink Copy - Project File

ARROWHEAD ENGINEERING

Water/NAPL Level Measurements

Date: 8/23-25/2016

Monitoring Locations	Type	Measurement in Feet	Time	Comments
3001.1	Water Level	42.74'	0819	08/25
	LNAPL Level			
	DNAPL Thickness			
3002.1	Water Level	18.74'	1216	08/23
	LNAPL Level			
	DNAPL Thickness			
3002.2	Water Level	19.31'	1217	08/23
	LNAPL Level			
	DNAPL Thickness			
3003.1	Water Level	24.27'	0946	08/23
	LNAPL Level			
	DNAPL Thickness			
3003.2	Water Level	23.86'	0947	08/23
	LNAPL Level			
	DNAPL Thickness			
3005.1	Water Level	10.18'	0927	08/23
	LNAPL Level			
	DNAPL Thickness			
3005.2	Water Level	13.11'	0928	08/23
	LNAPL Level			
	DNAPL Thickness			
3005.3	Water Level	14.78'	0930	08/23
	LNAPL Level			
	DNAPL Thickness			
3006.1	Water Level	13.16'	1644	08/24
	LNAPL Level	13.16'		
	DNAPL Thickness			
3006.2	Water Level	15.75'	1647	08/24
	LNAPL Level			
	DNAPL Thickness			
3006.3	Water Level	13.84'	1650	08/24
	LNAPL Level			
	DNAPL Thickness			
3007.1	Water Level	16.81'	0809	08/23
	LNAPL Level			
	DNAPL Thickness			
3007.2	Water Level	18.28'	0810	08/23
	LNAPL Level			
	DNAPL Thickness			
3007.3	Water Level	18.74'	0811	08/23
	LNAPL Level			
	DNAPL Thickness			

---- = Not Measured

NP - Not Present (no odor, film or layer)

ARROWHEAD ENGINEERING

Water/NAPL Level Measurements

Date: 8/23-25/2016

Monitoring Locations	Type	Measurement in Feet	Time	Comments
3008.1	Water Level	22.87'	1735	08/24
	LNAPL Level			
	DNAPL Thickness			
3008.2	Water Level	23.59'	1736	08/24
	LNAPL Level	Film		
	DNAPL Thickness			
3009.1	Water Level	23.67'	1202	08/23
	LNAPL Level			
	DNAPL Thickness			
3010.1	Water Level	23.40'	1208	08/23
	LNAPL Level			
	DNAPL Thickness			
3010.2	Water Level	23.68'	1207	08/23
	LNAPL Level			
	DNAPL Thickness			
3011.1	Water Level	10.09'	1659	08/23
	LNAPL Level			
	DNAPL Thickness			
3011.2	Water Level	13.39'	1700	08/23
	LNAPL Level			
	DNAPL Thickness			
3011.3	Water Level	13.26'	1700	08/23
	LNAPL Level			
	DNAPL Thickness			
3012.1	Water Level	24.43'	0825	08/23
	LNAPL Level			
	DNAPL Thickness			
3013.1	Water Level	22.22'	1724	08/24
	LNAPL Level			
	DNAPL Thickness			
3013.2	Water Level	22.46'	1725	08/24
	LNAPL Level			
	DNAPL Thickness			
3013.3	Water Level	30.04'	1726	08/24
	LNAPL Level			
	DNAPL Thickness			
3014.1	Water Level	23.48'	0747	08/23
	LNAPL Level			
	DNAPL Thickness			
3014.2	Water Level	30.21'	0748	08/23
	LNAPL Level			
	DNAPL Thickness			

---- = Not Measured

NP - Not Present (no odor, film or layer)

ARROWHEAD ENGINEERING

Water/NAPL Level Measurements

Date: 8/23-25/2018

Monitoring Locations	Type	Measurement in Feet	Time	Comments
3015.1	Water Level	19.19'	0937	08/23
	LNAPL Level			
	DNAPL Thickness			
3015.2	Water Level	27.06'	0939	08/23
	LNAPL Level			
	DNAPL Thickness			
3016.1	Water Level	25.18'	1711	08/24
	LNAPL Level			
	DNAPL Thickness			
3017.1	Water Level	26.39'	1757	08/24
	LNAPL Level	None.		
	DNAPL Thickness			
3017.2	Water Level	25.78'	1759	08/24
	LNAPL Level	Sheen		
	DNAPL Thickness			
3017.3	Water Level	25.103'	1803	08/24
	LNAPL Level	Sheen		
	DNAPL Thickness			
3018.1	Water Level	19.05'	1226	08/23
	LNAPL Level			
	DNAPL Thickness			
3018.2	Water Level	18.73'	1227	08/23
	LNAPL Level			
	DNAPL Thickness			
3018.3	Water Level	18.54'	1229	08/23
	LNAPL Level			
	DNAPL Thickness			
3021.1	Water Level	10.72'	0900	08/23
	LNAPL Level			
	DNAPL Thickness			
3025.1	Water Level	16.02'	0933	08/25
	LNAPL Level	16.01'		
	DNAPL Thickness			
3026.1	Water Level	19.92'	1720	08/24
	LNAPL Level			
	DNAPL Thickness			
3027.1	Water Level	21.22'	0734	08/23
	LNAPL Level			
	DNAPL Thickness			
3028.1	Water Level	25.39'	0740	08/23
	LNAPL Level			
	DNAPL Thickness			

---- = Not Measured

NP - Not Present (no odor, film or layer)

ARROWHEAD ENGINEERING

Water/NAPL Level Measurements

Date: 8/23-25/2016

Monitoring Locations	Type	Measurement in Feet	Time	Comments
3029.1	Water Level	22.95'	1719	08/24
	LNAPL Level			
	DNAPL Thickness			
3030.1	Water Level	20.29'	1659	08/24
	LNAPL Level	Film		
	DNAPL Thickness			
3030.2	Water Level	27.45'	1655	08/24
	LNAPL Level			
	DNAPL Thickness			
3031.1	Water Level	18.10'	1014	08/25 18.03'
	LNAPL Level	18.02'		18.02' After Prod. Rem.
	DNAPL Thickness			
3031.2	Water Level	21.85'	0947	08/25
	LNAPL Level	Sheen		
	DNAPL Thickness			
3032.1	Water Level	16.38'	0815	08/23
	LNAPL Level			
	DNAPL Thickness			
3033.1	Water Level	22.17'	0744	08/23
	LNAPL Level			
	DNAPL Thickness			
3034.1	Water Level	20.58'	0738	08/23
	LNAPL Level			
	DNAPL Thickness			
3035.1	Water Level	21.19'	0754	08/23
	LNAPL Level			
	DNAPL Thickness			
3036.1	Water Level	16.03'	0803	08/23
	LNAPL Level			
	DNAPL Thickness			
3037.1	Water Level	12.63'	0759	08/23
	LNAPL Level			
	DNAPL Thickness			
3038.1	Water Level	19.67'	0911	08/23
	LNAPL Level			
	DNAPL Thickness			
3038.2	Water Level	22.68'	0913	08/23
	LNAPL Level			
	DNAPL Thickness			
3039.1	Water Level	25.73'	0920	08/25
	LNAPL Level	20.21'		Product Not Removed
	DNAPL Thickness			

---- = Not Measured

NP - Not Present (no odor, film or layer)

ARROWHEAD ENGINEERING

Water/NAPL Level Measurements

Date: 8/23-25/2018

Monitoring Locations	Type	Measurement in Feet	Time	Comments
3039.2	Water Level	24.78'	0915	08/25
	LNAPL Level			
	DNAPL Thickness			
3040.1	Water Level	22.58'	1730	08/24
	LNAPL Level			
	DNAPL Thickness			
3041.1	Water Level	25.06'	1140	08/23
	LNAPL Level			
	DNAPL Thickness			
3041.2	Water Level	25.91'	1141	08/23
	LNAPL Level			
	DNAPL Thickness			
3042.1	Water Level	20.65'	1147	08/23
	LNAPL Level			
	DNAPL Thickness			
3042.2	Water Level	20.99'	1148	08/23
	LNAPL Level			
	DNAPL Thickness			
3043.1	Water Level	18.22'	1741	08/24
	LNAPL Level			
	DNAPL Thickness			
3043.2	Water Level	18.163'	1742	08/24
	LNAPL Level			
	DNAPL Thickness			
3044.1	Water Level	7.14'	1238	08/23
	LNAPL Level			
	DNAPL Thickness			
3044.2	Water Level	7.62'	1239	08/23
	LNAPL Level			
	DNAPL Thickness			
3044.3	Water Level	8.51'	1241	08/23
	LNAPL Level			
	DNAPL Thickness			
3045.1	Water Level	16.57'	1003	08/23
	LNAPL Level			
	DNAPL Thickness			
3046.1	Water Level	20.41'	0726	08/23
	LNAPL Level			
	DNAPL Thickness			
3047.1	Water Level	13.19'	0838	08/23
	LNAPL Level			
	DNAPL Thickness			

---- = Not Measured

NP - Not Present (no odor, film or layer)

ARROWHEAD ENGINEERING

Water/NAPL Level Measurements

Date: 8/23-25/2018

Monitoring Locations	Type	Measurement in Feet	Time	Comments
3047.2	Water Level	13.39'	0839	08/23
	LNAPL Level			
	DNAPL Thickness			
3047.3	Water Level	13.14'	0840	08/23
	LNAPL Level			
	DNAPL Thickness			
3048.1	Water Level	10.31'	0849	08/23
	LNAPL Level			
	DNAPL Thickness			
3048.2	Water Level	13.04'	0842	08/23
	LNAPL Level			
	DNAPL Thickness			
3049.1	Water Level	14.43'	0917	08/23
	LNAPL Level			
	DNAPL Thickness			
3049.2	Water Level	15.10'	0918	08/23
	LNAPL Level			
	DNAPL Thickness			
3049.3	Water Level	14.76'	0920	08/23
	LNAPL Level			
	DNAPL Thickness			
3050.1	Water Level	21.01'	1110	08/23
	LNAPL Level			
	DNAPL Thickness			
3050.2	Water Level	21.07'	1112	08/23
	LNAPL Level			
	DNAPL Thickness			
3050.3	Water Level	25.92'	1115	08/23
	LNAPL Level			
	DNAPL Thickness			
3051.1	Water Level	18.34'	1222	08/23
	LNAPL Level			
	DNAPL Thickness			
3052.1	Water Level	14.08'	1410	08/24 S.U. - 3.83'
	LNAPL Level	Sheen		
	DNAPL Thickness			
3052.2	Water Level	27.54'	1405	08/24 S.U. - 3.66'
	LNAPL Level			
	DNAPL Thickness			
3052.3	Water Level	32.93'	1407	08/24 S.U. - 3.26'
	LNAPL Level	32.92'		
	DNAPL Thickness			

---- = Not Measured

NP - Not Present (no odor, film or layer)

ARROWHEAD ENGINEERING

Water/NAPL Level Measurements

Date: 8/23-25/2016

Monitoring Locations	Type	Measurement in Feet	Time	Comments
3053.1	Water Level	14.54'	1344	08/24 S.U - 4.35'
	LNAPL Level			
	DNAPL Thickness			
3053.2	Water Level	16.28'	1334	08/24 S.U. - 4.27'
	LNAPL Level			
	DNAPL Thickness			
3053.3	Water Level	30.16'	1335	08/24 S.U. - 4.12'
	LNAPL Level	Film		
	DNAPL Thickness			
3054.1	Water Level	13.91'	1044	08/24 S.U -4.31'
	LNAPL Level	Sheen		
	DNAPL Thickness			
3054.2	Water Level	20.69'	1047	08/24 S.U. - 3.84'
	LNAPL Level			
	DNAPL Thickness			
3054.3	Water Level	32.02'	1049	08/24 S.U. - 3.65'
	LNAPL Level			
	DNAPL Thickness			
3055.1	Water Level	13.61'	1419	08/24 S.U. - 4.33'
	LNAPL Level			
	DNAPL Thickness			
3055.2	Water Level	26.84'	1415	08/24 S.U. - 4.32'
	LNAPL Level			
	DNAPL Thickness			
3055.3	Water Level	35.24'	1417	08/24 S.U. - 3.74'
	LNAPL Level	35.24'		
	DNAPL Thickness			
3056.1	Water Level	13.63'	1256	08/24 S.U. - 4.13'
	LNAPL Level	13.41'		
	DNAPL Thickness			
3056.2	Water Level	17.10'	1300	08/24 S.U. - 4.07'
	LNAPL Level			
	DNAPL Thickness			
3056.3	Water Level	36.02'	1302	08/24 S.U. - 3.94'
	LNAPL Level	Film		
	DNAPL Thickness			
3057.1	Water Level	14.57'	1355	08/24 S.U. - 3.59'
	LNAPL Level	Film		
	DNAPL Thickness			
3057.2	Water Level	23.53'	1350	08/24 S.U. - 3.61'
	LNAPL Level	Sheen		
	DNAPL Thickness			

---- = Not Measured

NP - Not Present (no odor, film or layer)

ARROWHEAD ENGINEERING

Water/NAPL Level Measurements

Date: 8/23-25/2018

Monitoring Locations	Type	Measurement in Feet	Time	Comments
3057.3	Water Level	31.89'	1352	08/24 S.U.-3.59'
	LNAPL Level	31.32'		
	DNAPL Thickness			
3058.1	Water Level	10.58'	1013	08/24 S.U.-3.34'
	LNAPL Level			
	DNAPL Thickness			
3058.2	Water Level	28.17'	1015	08/24 S.U.-3.90'
	LNAPL Level			
	DNAPL Thickness			
3058.3	Water Level	31.12'	1018	08/24 S.U-3.168'
	LNAPL Level			
	DNAPL Thickness			
3059.1	Water Level	11.14'	1004	08/24 S.U.-3.22'
	LNAPL Level			
	DNAPL Thickness			
3059.2	Water Level	29.163'	1005	08/24 S.U-4.00'
	LNAPL Level			
	DNAPL Thickness			
3059.3	Water Level	31.77'	1007	08/24 S.U.-3.25'
	LNAPL Level	Sheen		
	DNAPL Thickness			
3060.1	Water Level	11.79'	1026	08/24 S.U.-3.14'
	LNAPL Level	Film		
	DNAPL Thickness			
3060.2	Water Level	29.86'	1030	08/24 S.U.-3.88'
	LNAPL Level			
	DNAPL Thickness			
3060.3	Water Level	29.74'	1036	08/24 S.U.-3.160'
	LNAPL Level			
	DNAPL Thickness			
3092.1	Water Level			NOT TAKEN INACCESSIBLE
	LNAPL Level			
	DNAPL Thickness			
3094.1	Water Level	9.10'	0831	08/23
	LNAPL Level			
	DNAPL Thickness			
5512.1	Water Level	17.19'	1705	08/24
	LNAPL Level			
	DNAPL Thickness			
5512.2	Water Level	29.01'	1704	08/24
	LNAPL Level			
	DNAPL Thickness			

---- = Not Measured

NP - Not Present (no odor, film or layer)

ARROWHEAD ENGINEERING

Water/NAPL Level Measurements

Date: 8/23-25/2018

Monitoring Locations	Type	Measurement in Feet	Time	Comments
5512.3	Water Level	30.77'	1703	08/24
	LNAPL Level			
	DNAPL Thickness			
5513.1	Water Level	9.36'	1445	08/24
	LNAPL Level			
	DNAPL Thickness			
5513.2	Water Level	25.31'	1448	08/24
	LNAPL Level			
	DNAPL Thickness			
5513.3	Water Level	30.95'	1450	08/24
	LNAPL Level	Film		
	DNAPL Thickness			
6001.1	Water Level	28.55'	1427	08/23
	LNAPL Level			
	DNAPL Thickness			
6001.2	Water Level	29.49'	1429	08/23
	LNAPL Level			
	DNAPL Thickness			
6002.1	Water Level	15.09'	0854	08/24
	LNAPL Level			
	DNAPL Thickness			
6002.2	Water Level	14.91'	0855	08/24
	LNAPL Level			
	DNAPL Thickness			
6002.3	Water Level	14.70'	0857	08/24
	LNAPL Level			
	DNAPL Thickness			
6003.1	Water Level	17.02'	0827	08/24
	LNAPL Level			
	DNAPL Thickness			
6003.2	Water Level	16.81'	0829	08/24
	LNAPL Level			
	DNAPL Thickness			
6003.3	Water Level	15.90'	0832	08/24
	LNAPL Level			
	DNAPL Thickness			
6010.1	Water Level	23.24'	1613	08/23
	LNAPL Level			
	DNAPL Thickness			
6010.2	Water Level	23.23'	1613	08/23
	LNAPL Level			
	DNAPL Thickness			

---- = Not Measured

NP - Not Present (no odor, film or layer)

ARROWHEAD ENGINEERING

Water/NAPL Level Measurements

Date: 8/23-25/2018

Monitoring Locations	Type	Measurement in Feet	Time	Comments
6010.3	Water Level	23.22'	1613	08/23
	LNAPL Level			
	DNAPL Thickness			
6011.1	Water Level	20.78'	1600	08/23
	LNAPL Level			
	DNAPL Thickness			
6011.2	Water Level	20.93'	1601	08/23
	LNAPL Level			
	DNAPL Thickness			
6011.3	Water Level	20.89'	1601	08/23
	LNAPL Level			
	DNAPL Thickness			
6012.1	Water Level	20.14'	1549	08/23
	LNAPL Level			
	DNAPL Thickness			
6012.2	Water Level	20.39'	1550	08/23
	LNAPL Level			
	DNAPL Thickness			
6012.3	Water Level	20.71'	1550	08/23
	LNAPL Level			
	DNAPL Thickness			
6013.1	Water Level	18.02'	1539	08/23
	LNAPL Level			
	DNAPL Thickness			
6013.2	Water Level	18.11'	1539	08/23
	LNAPL Level			
	DNAPL Thickness			
6013.3	Water Level	18.49'	1540	08/23
	LNAPL Level			
	DNAPL Thickness			
6014.1	Water Level	16.73'	0836	08/24
	LNAPL Level			
	DNAPL Thickness			
6014.2	Water Level	16.458'	0837	08/24
	LNAPL Level			
	DNAPL Thickness			
6014.3	Water Level	16.47'	0841	08/24
	LNAPL Level			
	DNAPL Thickness			
6015.1	Water Level	14.86'	0906	08/24
	LNAPL Level			
	DNAPL Thickness			

---- = Not Measured

NP - Not Present (no odor, film or layer)

ARROWHEAD ENGINEERING

Water/NAPL Level Measurements

Date: 8/23-25/2016

Monitoring Locations	Type	Measurement in Feet	Time	Comments
6015.2	Water Level	14.85'	0909	08/24
	LNAPL Level			
	DNAPL Thickness			
6015.3	Water Level	14.68'	0914	08/24
	LNAPL Level			
	DNAPL Thickness			
6016.1	Water Level	16.80'	0929	08/24
	LNAPL Level			
	DNAPL Thickness			
6016.2	Water Level	16.82'	0933	08/24
	LNAPL Level			
	DNAPL Thickness			
6016.3	Water Level	16.80'	0938	08/24
	LNAPL Level			
	DNAPL Thickness			
6017.1	Water Level	35.05'	1440	08/23
	LNAPL Level			
	DNAPL Thickness			
6017.2	Water Level	35.08'	1441	08/23
	LNAPL Level			
	DNAPL Thickness			
6017.3	Water Level	35.12'	1445	08/23
	LNAPL Level			
	DNAPL Thickness			
6018.1	Water Level	18.30'	0758	08/24
	LNAPL Level			
	DNAPL Thickness			
6018.2	Water Level	18.25'	0801	08/24
	LNAPL Level			
	DNAPL Thickness			
6019.1	Water Level	12.65'	1525	08/23
	LNAPL Level			
	DNAPL Thickness			
6019.2	Water Level	13.25'	1526	08/23
	LNAPL Level			
	DNAPL Thickness			
6019.3	Water Level	13.31'	1526	08/23
	LNAPL Level			
	DNAPL Thickness			
6020.1	Water Level	8.16'	1255	08/23
	LNAPL Level			
	DNAPL Thickness			

---- = Not Measured

NP - Not Present (no odor, film or layer)

ARROWHEAD ENGINEERING

Water/NAPL Level Measurements

Date: 8/23-25/2016

Monitoring Locations	Type	Measurement in Feet	Time	Comments
6020.2	Water Level	8.18'	1257	08/23
	LNAPL Level			
	DNAPL Thickness			
6020.3	Water Level	8.21'	1300	08/23
	LNAPL Level			
	DNAPL Thickness			
6500.1	Water Level	15.82'	1308	08/23
	LNAPL Level			
	DNAPL Thickness			
6500.2	Water Level	16.97'	1310	08/23
	LNAPL Level			
	DNAPL Thickness			
6500.3	Water Level	16.79'	1311	08/23
	LNAPL Level			
	DNAPL Thickness			
6501.1	Water Level	23.08'	1317	08/23
	LNAPL Level			
	DNAPL Thickness			
6501.2	Water Level	23.04'	1318	08/23
	LNAPL Level			
	DNAPL Thickness			
6502.1	Water Level	18.59'	0808	08/24
	LNAPL Level			
	DNAPL Thickness			
6502.2	Water Level	18.14'	0810	08/24
	LNAPL Level			
	DNAPL Thickness			
6502.3	Water Level	19.02'	0812	08/24
	LNAPL Level			
	DNAPL Thickness			
6503.1	Water Level	24.90'	1410	08/23
	LNAPL Level			
	DNAPL Thickness			
6503.2	Water Level	24.88'	1412	08/23
	LNAPL Level			
	DNAPL Thickness			
6503.3	Water Level	24.90'	1413	08/23
	LNAPL Level			
	DNAPL Thickness			
8001.1	Water Level			UNABLE TO OBTAIN
	LNAPL Level			TUBING STUCK IN WELL
	DNAPL Thickness			

---- = Not Measured

NP - Not Present (no odor, film or layer)

ARROWHEAD ENGINEERING

Water/NAPL Level Measurements

Date: 8/23-25/2018

Monitoring Locations	Type	Measurement in Feet	Time	Comments
8002.1	Water Level	18.40'	0902	08/23
	LNAPL Level			
	DNAPL Thickness			
8004.1	Water Level	17.70'	1453	08/23
	LNAPL Level			
	DNAPL Thickness			
8004.2	Water Level	18.02'	1454	08/23
	LNAPL Level			
	DNAPL Thickness			
8005.1	Water Level			Abandoned
	LNAPL Level			
	DNAPL Thickness			
8006.1	Water Level	19.78'	1554	08/23
	LNAPL Level			
	DNAPL Thickness			
9001.1	Water Level	21.45'	1156	08/23
	LNAPL Level			
	DNAPL Thickness			
9006.1	Water Level			Operating Extraction Well Not Taken Pumping @ 9.6 gpm
	LNAPL Level			
	DNAPL Thickness			
9008.1	Water Level			Operating Extraction Well Not Taken Pumping @ 2.4 gpm
	LNAPL Level			
	DNAPL Thickness			
9009.1	Water Level			Operating Extraction Well Not Taken Pumping @ 15.4 gpm
	LNAPL Level			
	DNAPL Thickness			
9500.1	Water Level	14.59'	0818	08/23
	LNAPL Level			
	DNAPL Thickness			
9501.1	Water Level	14.38'	0819	08/23
	LNAPL Level			
	DNAPL Thickness			
9502.1	Water Level			Will Obtain When Sampled
	LNAPL Level			
	DNAPL Thickness			
9503.1	Water Level			Will Obtain When Sampled
	LNAPL Level			
	DNAPL Thickness			
9503.2	Water Level			Will Obtain When Sampled
	LNAPL Level			
	DNAPL Thickness			

---- = Not Measured

NP - Not Present (no odor, film or layer)

ARROWHEAD ENGINEERING

Water/NAPL Level Measurements

Date: 8/23-25/2018

Monitoring Locations	Type	Measurement in Feet	Time	Comments
9504.2	Water Level			Operating Injection Well Not Paked
	LNAPL Level			
	DNAPL Thickness			
9505.1	Water Level	15.07'	1328	08/24 S.U - 4.98'
	LNAPL Level			
	DNAPL Thickness			
9505.2	Water Level	26.90'	1324	08/24 S.U. - 3.45'
	LNAPL Level			
	DNAPL Thickness			
9505.3	Water Level	34.75'	1326	08/24 S.U - 4.81'
	LNAPL Level	Sheen		
	DNAPL Thickness			
9506.1	Water Level	13.62'	1554	08/24 S.U. - 2.99'
	LNAPL Level	Sheen		
	DNAPL Thickness			
9506.2	Water Level	28.52'	1550	08/24 S.U. - 3.07'
	LNAPL Level			
	DNAPL Thickness			
9506.3	Water Level	31.56'	1552	08/24 S.U. - 2.92'
	LNAPL Level	31.19'		
	DNAPL Thickness			
9507.1	Water Level	16.19'	1401	08/24 S.U. - 4.20'
	LNAPL Level			
	DNAPL Thickness			
9507.2	Water Level	29.45'	1400	08/24 S.U. - 3.37'
	LNAPL Level			
	DNAPL Thickness			
9508.1	Water Level	13.78'	1605	08/24 S.U. - 3.10'
	LNAPL Level			
	DNAPL Thickness			
9508.2	Water Level	30.68'	1604	08/24 S.U. - 3.03'
	LNAPL Level			
	DNAPL Thickness			
9509.1	Water Level	13.63'	1547	08/24 S.U. - 4.03'
	LNAPL Level	Sheen		
	DNAPL Thickness			
9509.2	Water Level	35.26'	1545	08/24 S.U. - 2.88'
	LNAPL Level	35.26'		
	DNAPL Thickness			
9510.1	Water Level	13.70'	1611	08/24 S.U. - 4.05'
	LNAPL Level			
	DNAPL Thickness			

---- = Not Measured

NP - Not Present (no odor, film or layer)

ARROWHEAD ENGINEERING

Water/NAPL Level Measurements

Date: 8/23-25/2016

Monitoring Locations	Type	Measurement in Feet	Time	Comments
9510.2	Water Level	33.04'	1609	08/24 S.U. -3.67'
	LNAPL Level			
	DNAPL Thickness			
9511.1	Water Level	12.13'	1628	08/24 S.U. -3.32'
	LNAPL Level			
	DNAPL Thickness			
9511.2	Water Level	40.25'	1625	08/24 S.U. -2.97'
	LNAPL Level	Film		
	DNAPL Thickness			
FIRE POND	Water Level	2.47'	0856	08/23
	LNAPL Level			
	DNAPL Thickness			
CHANNEL POND INLET	Water Level	1.86'	0907	08/23
	LNAPL Level			
	DNAPL Thickness			
6007.1	Water Level	19.77'	1421	08/23
	LNAPL Level			
	DNAPL Thickness			
6009.1	Water Level	19.88'	0922	08/24
	LNAPL Level			
	DNAPL Thickness			
	Water Level			
	LNAPL Level			
	DNAPL Thickness			
	Water Level			
	LNAPL Level			
	DNAPL Thickness			
	Water Level			
	LNAPL Level			
	DNAPL Thickness			
	Water Level			
	LNAPL Level			
	DNAPL Thickness			
	Water Level			
	LNAPL Level			
	DNAPL Thickness			
	Water Level			
	LNAPL Level			
	DNAPL Thickness			
	Water Level			
	LNAPL Level			
	DNAPL Thickness			
	Water Level			
	LNAPL Level			
	DNAPL Thickness			

---- = Not Measured

NP - Not Present (no odor, film or layer)

APPENDIX B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, BENZENE/ETHYLBENZENE, AND ARSENIC) 1987 THROUGH 2016

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
MDEQ Values, October 2012						**1**	**100**	**670**	**2100**	**130**	**1100**	**830**	**0.5**	**0.05**	**0.5**	**5**	**50**	**0.05**	**0.5**	**5**	**10**	**10**
3001.1	10/28/1991	CAL	SA	UA/IZ	UD	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3001.1	11/11/1992	CAL	SA	UA/IZ	UD	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3001.1	9/28/2007	CAS-Kelso	SA	UA/IZ	UD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3001.1	4/19/2008	CAS-Kelso	SA	UA/IZ	UD	< 0.5	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3001.1	4/19/2008	CAS-Kelso	SA	UA/IZ	UD	< 1	< 0.21	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.5	**0.27**	**0.19**
3001.1	4/28/2008	CAS-Kelso	SA	UA/IZ	UD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3001.1	9/16/2008	CAS-Kelso	SA	UA/IZ	UD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3001.1	10/21/2009	CAS	SA	UA/IZ	UD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3001.1	11/10/2009	CAS	SA	UA/IZ	UD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3002.1	6/26/1987	CAL	SA	UA	US	NA	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3002.1	12/2/1987	CAL	SS	UA	US	NA	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3002.1	6/15/1992	CAL	SA	UA	US	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3002.1	6/15/1992	CAL	SA	UA	US	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5	NA	NA
3002.1	3/29/1993	CAL	SA	UA	US	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3002.1	8/1/2005	CAS-Kelso	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3002.1	11/7/2006	LOSL	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3002.1	9/19/2007	LOSL	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3002.1	9/19/2008	LOSL	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3002.1	9/14/2009	LOSL	SA	UA	US	< 3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3002.1	9/3/2010	CAS	SA	UA	US	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5
3002.1	9/3/2010	LOSL	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3002.1	9/10/2011	LOSL	SA	UA	US	**0.82**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3002.1	9/10/2012	CAS	SA	UA	US	NA	**0.06**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
3002.1	9/10/2012	LOSL	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3002.1	9/9/2013	ALS	SA	UA	US	NA	**0.036**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
3002.1	9/9/2013	LOSL	SA	UA	US	< 0.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3002.1	9/5/2014	ALS	SA	UA	US	NA	**0.0058**	< 0.02	**0.012**	< 0.02	< 0.02	< 0.02	**0.0027**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.2**
3002.1	9/5/2014	LOSL	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3002.1	7/30/2015	LOSL	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3002.1	7/31/2015	ALS	SA	UA	US	NA	< 0.02	**0.0055**	**0.0077**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	< 0.5
3002.1	9/5/2016	ALS	SA	UA	US	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	< 0.5
3002.2	3/8/1994	CAL	SA	UA	UM	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3002.2	3/13/1995	QES	SA	UA	UM	**2.3**	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3002.2	3/18/1996	QES	SA	UA	UM	**1.2**	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3002.2	4/14/1997	LOSL	SA	UA	UM	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3002.2	4/14/1997	QES	SA	UA	UM	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3002.2	8/4/1998	LOSL	SA	UA	UM	**30.5**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3002.2	8/4/1998	QES	SA	UA	UM	**7.9**	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
3002.2	8/4/1998	QES	FD	UA	UM	**9**	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
3002.2	8/2/1999	QES	SA	UA	UM	**23**	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
3002.2	8/2/1999	QES	FD	UA	UM	**22**	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
3002.2	7/19/2000	LOSL	SA	UA	UM	**41.5**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3002.2	7/19/2000	STL	SA	UA	UM	**2.1**	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
3002.2	7/19/2000	STL	FD	UA	UM	**38**	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
3002.2	9/4/2001	STL	SA	UA	UM	**25**	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
3002.2	9/4/2001	STL	FD	UA	UM	**27**	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
3002.2	6/26/2002	CAS_K	SA	UA	UM	**89**	**0.05**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	NA	NA	NA
3002.2	6/26/2002	CAS_K	SA	UA	UM	**130**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3002.2	6/26/2002	CAS_K	FD	UA	UM	**100**	**0.044**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	NA	NA	NA
3002.2	6/26/2002	CAS_K	FD	UA	UM	**120**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3002.2	7/1/2003	CAS-Kelso	SA	UA	UM	**10**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
3002.2	7/1/2003	CAS-Kelso	FD	UA	UM	**5.4**	**15**	**7.2**	**0.14**	**0.4**	**6.7**	**0.14**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
3002.2	7/6/2004	CAS-Kelso	SA	UA	UM	**250**	**0.11**	< 0.02	< 0.02	< 0.02	**0.055**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
3002.2	6/1/2016	ALS	SA	UA	UM	**110**	**0.02**	< 0.02	**0.013**	< 0.02	**0.099**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.3**
3002.2	6/1/2016	LOSL	SA	UA	UM	**11.5**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3003.1	5/12/1987	CAL	UNK	UA	US	NA	< 20	< 20	< 7	< 0.2	< 2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3003.1	5/12/1987	CAL	SSFD	UA	US	NA	< 20	< 200	< 7	**0.3**	< 20	**0.3**	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3003.1	5/12/1987	CAL	SS	UA	US	NA	< 20	< 20	< 7	**0.26**	< 2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3003.1	5/12/1987	CAL	SA	UA	US	NA	< 20	< 20	< 7	**0.26**	< 2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3003.1	6/3/1987	CAL	SA	UA	US	NA	< 20	< 20	**0.76**	**0.51**	**7.7**	**0.39**	< 0.08	< 0.05	< 0.02	< 0.02	< 2	< 0.2	< 0.2	NA	NA	NA
3003.1	6/17/1987	CAL	SA	UA	US	NA	< 20	< 20	< 0.7	**0.28**	**8.1**	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3003.1	6/29/1987	CAL	SA	UA	US	**280**	< 200	< 200	**1**	**0.21**	**8.6**	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 20	< 0.2	< 0.2	NA	NA	NA
3003.1	7/14/1987	CAL	SA	UA	US	**370**	< 20	< 20	**1**	**0.35**	**17**	**0.32**	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3003.1	7/28/1987	CAL	SA	UA	US	**57**	**5**	**6.6**	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3003.1	9/9/1987	CAL	SA	UA	US	**720**	< 20	< 20	< 7	< 0.2	< 2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3003.1	9/28/1989	CAL	SA	UA	US	**840**	**550**	< 100	**1.8**	**1**	**23**	< 1	< 0.5	< 0.5	< 0.2	< 0.2	< 0.5	< 2	< 0.5	NA	NA	NA
3003.1	10/29/1991	LOSL	SA	UA	US	**33**	**689**	**51**	**18**	< 5	**37**	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	NA	NA	NA
3003.1	2/19/1992	LOSL	SA	UA	US	**38**	**283**	**37**	< 10	< 10	**34**	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NA	NA	NA
3003.1	6/4/1992	LOSL	SS	UA	US	**30**	**223**	**24**	< 7	< 7	**15**	< 7	< 7	< 7	< 7	< 7	< 7	< 7	< 7	NA	NA	NA
3003.1	6/4/1992	LOSL	SA	UA	US	**30**	**344**	**32**	< 6	< 6	**18**	< 6	< 6	< 6	< 6	< 6	< 6	< 6	< 6	NA	NA	NA
3003.1	8/27/1992	LOSL	SS	UA	US	**11**	**179**	**16**	< 3	< 3	**9**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3003.1	8/27/1992	LOSL	SA	UA	US	**21**	**363**	**27**	**3**	< 3	**18**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3003.1	11/23/1992	LOSL	SSFD	UA	US	**18**	**197**	**32**	< 6	< 6	**21**	< 6	< 6	< 6	< 6	< 6	< 6	< 6	< 6	NA	NA	NA
3003.1	11/23/1992	LOSL	SS	UA	US	**16**	**192**	**31**	< 6	< 6	**21**	< 6	< 6	< 6	< 6	< 6	< 6	< 6	< 6	NA	NA	NA
3003.1	11/23/1992	CAL	SA	UA	US	< 0.5	**260**	< 100	**1.9**	**0.63**	**21**	**0.39**	< 0.08	< 0.05	< 0.02	< 0.02	< 0.5	< 0.2	< 0.2	NA	NA	NA
3003.1	11/23/1992	LOSL	SA	UA	US	**16**	**195**	**31**	< 6	< 6	**21**	< 6	< 6	< 6	< 6	< 6	< 6	< 6	< 6	NA	NA	NA
3003.1	5/31/2016	ALS	SA	UA	US	< 0.5	**0.88**	**14**	**0.88**	**0.53**	**6.9**	**0.38**	**0.0062**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**40.2**
3003.1	5/31/2016	LOSL	SA	UA	US	**8.9**	**9.1**	**17**	< 3.5	< 3.5	**10.5**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3003.2	6/28/1987	CAL	SA	UA	US	**110**	< 20	< 20	< 0.7	< 0.2	**1.9**	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 2	< 0.2	< 0.2	NA	NA	NA

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
3003.2	7/14/1987	CAL	SA	UA	US	**140**	< 20	< 20	< 0.7	< 0.2	**3.6**	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3003.2	9/28/1989	CAL	SA	UA	US	**1100**	**780**	< 100	**1.6**	**0.9**	**19**	< 1	< 0.5	< 0.5	< 0.2	< 0.2	< 0.5	< 2	< 0.5	NA	NA	NA
3003.2	10/29/1991	LOSL	SA	UA	US	**361**	**2132**	**71**	**22**	< 5	**40**	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	NA	NA	NA
3003.2	2/19/1992	CAL	UNK	UA	US	**750**	**180**	**100**	**2.6**	**1.6**	**26**	< 1	< 0.08	< 0.05	< 0.02	< 0.02	< 0.5	< 0.2	< 0.2	NA	NA	NA
3003.2	2/19/1992	LOSL	SSFD	UA	US	**772**	**1396**	**57**	< 51	< 51	< 51	< 51	< 51	< 51	< 51	< 51	< 51	< 51	< 51	NA	NA	NA
3003.2	2/19/1992	LOSL	SS	UA	US	**609**	**1257**	**50**	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	NA	NA	NA
3003.2	2/19/1992	CAL	SA	UA	US	**750**	**180**	**100**	**2.6**	**1.6**	**26**	< 1	< 0.08	< 0.05	< 0.02	< 0.02	< 0.5	< 0.2	< 0.2	NA	NA	NA
3003.2	2/19/1992	LOSL	SA	UA	US	**728**	**1445**	**64**	< 53	< 53	< 53	< 53	< 53	< 53	< 53	< 53	< 53	< 53	< 53	NA	NA	NA
3003.2	6/4/1992	LOSL	SA	UA	US	**351**	**402**	**27**	< 13	< 13	**14**	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	NA	NA	NA
3003.2	8/27/1992	LOSL	SA	UA	US	**335**	**1155**	**37**	< 13	< 13	**19**	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	NA	NA	NA
3003.2	11/5/1992	LOSL	SA	UA	US	**236**	**2049**	**61**	< 31	< 31	< 31	< 31	< 31	< 31	< 31	< 31	< 31	< 31	< 31	NA	NA	NA
3003.2	7/9/2016	ALS	SA	UA	US	**140**	**0.29**	**3**	**0.44**	**0.23**	**1**	**0.18**	**0.011**	< 0.02	< 0.02	< 0.02	**0.0061**	< 0.02	< 0.02	NA	NA	**1.48**
3005.1	7/9/2016	ALS	SA	UA	US	**0.095**	**0.43**	**0.0084**	**0.02**	< 0.02	**0.0054**	< 0.02	**0.0032**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.5**
3005.2	10/30/1991	LOSL	SA	UA	US	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NA	NA	NA
3005.2	11/5/1992	LOSL	SA	UA	US	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	NA	NA	NA
3005.2	5/31/2016	LOSL	SA	UA	US	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3005.2	6/1/2016	ALS	SA	UA	US	< 0.5	< 0.02	< 0.02	**0.011**	< 0.02	< 0.02	< 0.02	**0.0033**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.5**
3005.2	6/1/2016	ALS	FD	UA	US	< 0.5	< 0.02	< 0.02	**0.01**	< 0.02	< 0.02	< 0.02	**0.003**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.5**
3005.2	6/1/2016	LOSL	FD	UA	US	< 3.5	**5**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3005.3	10/30/1991	LOSL	SA	UA	UM	< 5	**103**	**6**	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	NA	NA	NA
3005.3	11/4/1992	LOSL	SA	UA	UM	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3005.3	3/7/1994	LOSL	SA	UA	UM	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3005.3	6/1/2016	ALS	SA	UA	UM	< 0.5	**0.006**	< 0.02	**0.011**	< 0.02	< 0.02	< 0.02	**0.003**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**1**
3005.3	6/1/2016	LOSL	SA	UA	UM	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3006.1	9/29/1989	CAL	SA	UA	US	**13000**	**390000**	< 50000	**14000**	**25000**	**50000**	**22000**	**4800**	**1400**	**1300**	< 1000	< 25000	< 1000	**270**	NA	NA	NA
3006.1	6/10/2016	ALS	SA	UA	US	**9.7**	**4500**	**170**	**18**	**20**	**90**	**16**	**3.1**	**0.98**	**1.4**	**0.52**	**3.3**	**0.097**	**0.31**	NA	NA	**25.1**
3006.1	6/10/2016	LOSL	SA	UA	US	**27.9**	**3700**	**158**	**26.1**	**23.7**	**94.1**	**23.2**	**4**	< 3.5	< 3.5	< 3.5	**3.7**	< 3.5	< 3.5	NA	NA	NA
3006.2	9/29/1989	CAL	SA	UA	US	**940**	**32000**	< 10000	**540**	**930**	**1800**	**660**	**150**	**50**	**46**	**24**	< 500	< 200	**9**	NA	NA	NA
3006.2	7/9/2016	ALS	SA	UA	US	**0.78**	**22000**	**220**	**9.8**	**5.3**	**92**	**3.5**	**0.28**	**0.054**	**0.075**	**0.031**	**0.28**	**0.005**	**0.018**	NA	NA	**18.1**
3006.3	7/9/2016	ALS	SA	UA	US	**1.7**	**29000**	**210**	**18**	**10**	**87**	**6.1**	**1**	**0.33**	**0.43**	< 0.98	**1.1**	< 0.98	< 0.98	NA	NA	**20**
3007.1	5/31/2016	ALS	SA	UA	US	**0.76**	**730**	**82**	**3.2**	**1.6**	**33**	**0.98**	**0.029**	< 0.02	**0.0054**	< 0.02	**0.032**	< 0.02	**0.0054**	NA	NA	**31.6**
3007.1	5/31/2016	LOSL	SA	UA	US	**34.8**	**705**	**73.5**	**6.8**	**4.6**	**32.8**	**5.4**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3007.2	7/9/2016	ALS	SA	UA	UM	**140**	**3600**	**210**	**8.1**	**4.1**	**99**	**2.4**	**0.075**	**0.015**	**0.019**	**0.0044**	**0.071**	< 0.02	**0.0043**	NA	NA	**22.3**
3007.2	7/9/2016	ALS	FD	UA	UM	**140**	**3600**	**210**	**7.9**	**4.2**	**99**	**2.4**	**0.074**	**0.013**	**0.017**	**0.0046**	**0.067**	< 0.02	**0.0044**	NA	NA	**23.1**
3007.3	5/31/2016	ALS	SA	UA	UM	**570**	**2400**	**200**	**7.9**	**4.1**	**90**	**2.2**	**0.055**	< 0.02	**0.0099**	< 0.02	**0.048**	< 0.02	**0.0028**	NA	NA	**23**
3007.3	5/31/2016	LOSL	SA	UA	UM	**198**	**1820**	**118**	**10.3**	**5.5**	**55.7**	**5.5**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3008.1	5/12/1987	CAL	UNK	UA	US	NA	**1900**	< 200	< 7	**10**	**100**	**8.4**	< 2	< 0.5	**0.5**	**0.3**	< 20	< 2	< 2	NA	NA	NA
3008.1	5/12/1987	CAL	SSFD	UA	US	NA	**1500**	< 200	**7.4**	**11**	**69**	**11**	**1.3**	**0.7**	**0.6**	**0.4**	< 20	< 2	< 2	NA	NA	NA
3008.1	5/12/1987	CAL	SS	UA	US	NA	**1100**	< 200	**5.9**	**9.5**	< 20	**8.3**	**0.087**	**0.37**	**0.032**	**0.2**	< 20	< 0.2	< 0.2	NA	NA	NA
3008.1	5/12/1987	CAL	SS	UA	US	NA	**1100**	< 200	< 7	**10**	**69**	**12**	< 2	**0.9**	**0.8**	**0.5**	< 20	< 2	< 2	NA	NA	NA

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
3008.1	5/12/1987	CAL	SA	UA	US	NA	**1500**	< 200	**8.4**	**14**	**100**	**14**	< 3	**0.9**	**0.9**	**0.5**	< 20	< 2	< 2	NA	NA	NA
3008.1	6/3/1987	CAL	SA	UA	US	NA	**850**	< 200	**8.9**	**16**	**79**	**15**	**2.2**	**0.88**	**0.95**	**0.62**	< 20	< 2	< 2	NA	NA	NA
3008.1	6/17/1987	CAL	SA	UA	US	NA	**1300**	< 200	< 7	**3.3**	**53**	< 3	< 0.8	< 0.5	< 0.2	< 0.2	< 2	< 2	< 2	NA	NA	NA
3008.1	6/28/1987	CAL	UNK	UA	US	**520**	**1500**	< 200	**11**	**10**	**94**	**10**	**1.2**	**0.6**	**0.6**	**0.4**	< 20	< 2	< 2	< 2	NA	NA
3008.1	6/28/1987	CHA	UNK	UA	US	**27.6**	**732**	**312**	**12**	**27**	**42**	**38**	**13**	< 0.1	< 0.1	< 0.1	**2.8**	< 0.1	< 0.1	NA	NA	NA
3008.1	6/28/1987	CHA	SSFD	UA	US	**20.6**	**66**	**89**	**0.47**	< 0.5	**2.4**	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05	< 0.1	< 0.1	NA	NA	NA
3008.1	6/28/1987	CHA	SS	UA	US	**27.6**	**732**	**312**	**12**	**27**	**42**	**38**	**13**	< 0.1	< 0.1	< 0.1	**2.8**	< 0.1	< 0.1	NA	NA	NA
3008.1	6/28/1987	CAL	SA	UA	US	**440**	**1200**	< 200	**16**	**18**	**81**	**11**	**2.3**	**0.77**	**0.69**	**0.43**	< 20	< 2	< 2	< 2	NA	NA
3008.1	6/28/1987	CHA	SA	UA	US	**20.6**	**66**	**89**	**0.47**	< 0.5	**2.4**	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05	< 0.1	< 0.1	< 1	NA	NA
3008.1	7/14/1987	CAL	SA	UA	US	**580**	**4000**	< 200	**7.2**	**8.2**	**190**	**6.8**	< 1.6	< 0.5	**0.37**	**0.22**	< 20	< 2	< 2	NA	NA	NA
3008.1	7/28/1987	CAL	SA	UA	US	**380**	**960**	< 200	**2.4**	**2.3**	**46**	< 3	< 0.8	< 0.5	< 0.2	< 0.2	< 2	< 2	< 2	NA	NA	NA
3008.1	8/25/1987	CAL	SA	UA	US	NA	**1500**	< 200	**1.6**	**1.5**	**52**	< 2	< 0.8	< 0.5	< 0.2	< 0.2	< 2	< 2	< 2	NA	NA	NA
3008.1	9/24/1987	CAL	SS	UA	US	**340**	**1100**	< 200	**2**	**2.2**	**62**	< 3	< 0.8	< 0.5	< 0.2	< 0.2	< 2	< 2	< 2	NA	NA	NA
3008.1	9/24/1987	CAL	SA	UA	US	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2	NA	NA
3008.1	9/24/1987	CHA	SA	UA	US	**630**	**1600**	**58**	< 1	**3**	**27**	**2**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA
3008.1	9/24/1987	CHA	FD	UA	US	NA	**874**	**261**	< 25	< 25	**30.4**	< 50	< 25	< 50	< 50	< 50	< 25	< 50	< 50	NA	NA	NA
3008.1	12/2/1987	CAL	SS	UA	US	**420**	**1400**	< 200	**3.4**	**4.8**	**65**	**3.5**	< 0.8	< 0.5	**0.23**	< 0.2	< 20	< 2	< 2	NA	NA	NA
3008.1	12/2/1987	CAL	SA	UA	US	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5	NA	NA
3008.1	12/2/1987	CHA	SA	UA	US	**292**	**1556**	**71**	< 19.2	**4**	**34**	< 19.2	< 19.2	< 19.2	< 19.2	< 19.2	< 19.2	< 19.2	< 19.2	< 1	NA	NA
3008.1	4/14/1988	CAL	SA	UA	US	**250**	**660**	< 200	**2.9**	**4.1**	**53**	**3**	**1.1**	< 0.5	**0.2**	< 0.2	< 5	< 2	< 2	< 5	NA	NA
3008.1	10/2/1989	CAL	SA	UA	US	**3700**	**24000**	< 100000	**870**	**1900**	< 10000	**1100**	**280**	**160**	**94**	**64**	< 500	**320**	**98**	NA	NA	NA
3008.1	10/31/1991	LOSL	UNK	UA	US	**58**	**310**	**76**	< 11	**13**	< 11	**13**	< 11	< 11	< 11	< 11	< 11	< 11	< 11	NA	NA	NA
3008.1	10/31/1991	LOSL	SA	UA	US	**59**	**303**	**76**	< 11	**13**	< 11	**13**	< 11	< 11	< 11	< 11	< 11	< 11	< 11	NA	NA	NA
3008.1	11/10/1992	LOSL	SA	UA	US	**207**	**1198**	**58**	< 16	< 16	**58**	< 16	< 16	< 16	< 16	< 16	< 16	< 16	< 16	NA	NA	NA
3008.1	6/8/2016	ALS	SA	UA	US	**3.9**	**1200**	**87**	**3**	**1.7**	**36**	**1.1**	**0.23**	< 0.99	< 0.99	< 0.99	< 0.99	< 0.99	< 0.99	NA	NA	**27.7**
3008.1	6/8/2016	LOSL	SA	UA	US	**31.7**	**1420**	**124**	**10.6**	**5**	**51.8**	**8.6**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3008.2	10/31/1991	LOSL	UNK	UA	UD	**6311**	**14333**	**6833**	**3178**	**5289**	**5900**	**5067**	**1111**	< 278	**778**	< 278	**1222**	< 278	< 278	NA	NA	NA
3008.2	10/31/1991	LOSL	SA	UA	UD	**6444**	**15000**	**6444**	**2667**	**5222**	**5778**	**5000**	**1111**	< 278	**667**	< 278	**1222**	< 278	< 278	NA	NA	NA
3008.2	6/8/2016	ALS	SA	UA	UD	**870**	**12000**	**2500**	**1200**	**2100**	**2100**	**1800**	**430**	**150**	**220**	**83**	**480**	**12**	**41**	NA	NA	**15.2**
3008.2	6/8/2016	LOSL	SA	UA	UD	**2540**	**13000**	**3210**	**1750**	**3600**	**2580**	**3000**	**620**	**430**	**540**	< 350	**560**	< 350	< 350	NA	NA	NA
3008.2	6/8/2016	ALS	FD	UA	UD	**770**	**12000**	**2500**	**1200**	**2200**	**2200**	**1800**	**440**	**160**	**240**	**91**	**520**	**13**	**44**	NA	NA	**13.6**
3008.2	6/8/2016	LOSL	FD	UA	UD	**2290**	**11270**	**2950**	**1450**	**2940**	**2330**	**2530**	**440**	< 350	**380**	< 350	**410**	< 350	< 350	NA	NA	NA
3008.3	6/28/1987	CAL	SA	LA	LS	**260**	< 20	< 20	< 0.7	**1.2**	< 2	**1.9**	< 0.8	**0.06**	**0.07**	**0.04**	< 2	< 0.2	< 0.2	< 2	NA	NA
3008.3	6/28/1987	CHA	SA	LA	LS	**4.4**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3008.3	12/6/1987	CAL	UNK	LA	LS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2	NA	NA
3008.3	12/6/1987	CHA	UNK	LA	LS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**1.4**	NA	NA
3008.3	12/6/1987	CAL	SSFD	LA	LS	NA	< 200	< 200	**6.9**	**3.3**	**21**	**2.8**	< 0.8	< 0.5	< 0.2	< 0.2	< 2	< 2	< 2	NA	NA	NA
3008.3	12/6/1987	CAL	SS	LA	LS	**360**	< 200	< 200	< 7	**6.2**	< 20	**5.7**	< 0.8	< 0.5	**0.28**	< 0.2	< 2	< 2	< 2	NA	NA	NA
3008.3	12/6/1987	CAL	SA	LA	LS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5	NA	NA

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
3008.3	12/6/1987	CHA	SA	LA	LS	< 0.9	< 0.9	**7**	< 0.9	**6**	< 0.9	**4**	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	NA	NA	NA
3009.1	6/28/1987	CAL	SA	UA/IZ	UD	**2.8**	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	< 0.5	NA	NA
3009.1	6/28/1987	CHA	SA	UA/IZ	UD	< 0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3009.1	12/6/1987	CAL	SS	UA/IZ	UD	**3.4**	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3009.1	12/6/1987	CAL	SA	UA/IZ	UD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**2.3**	NA	NA
3009.1	12/6/1987	CHA	SA	UA/IZ	UD	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	NA	NA	NA
3009.1	7/8/2016	ALS	SA	UA/IZ	UD	**0.3**	**0.074**	**0.0049**	**0.016**	< 0.02	**0.004**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.45**
3010.1	6/26/1987	CAL	SA	UA	US	NA	< 20	< 20	< 0.7	< 0.2	**12**	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 20	< 0.2	< 0.2	< 0.5	NA	NA
3010.1	12/2/1987	CAL	SS	UA	US	NA	< 20	< 20	< 0.7	< 0.2	**6.6**	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3010.1	12/2/1987	CAL	SA	UA	US	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5	NA	NA
3010.1	12/2/1987	CHA	SA	UA	US	< 1	**19**	**6**	< 1	< 1	**3**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA
3010.1	11/19/1991	LOSL	SA	UA	US	< 3	**46**	**8**	< 3	< 3	**4**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3010.1	6/25/1992	LOSL	SA	UA	US	**14**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3010.1	3/16/1993	LOSL	SA	UA	US	**5**	**4**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3010.1	9/1/1993	LOSL	SA	UA	US	**5.4**	**73.9**	**9.5**	< 2.9	< 2.9	**7.1**	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	NA	NA	NA
3010.1	3/8/1994	LOSL	SA	UA	US	**6.4**	**216.3**	**13.6**	**3.3**	< 3.4	**5.6**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3010.1	9/8/1994	LOSL	UNK	UA	US	< 3.4	< 3.4	**4.4**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3010.1	9/8/1994	LOSL	SA	UA	US	< 3.4	< 3.4	**5**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3010.1	9/8/1994	QES	SA	UA	US	< 0.5	< 5	< 10	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3010.1	3/3/1995	LOSL	SA	UA	US	< 3.4	**39.5**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3010.1	9/7/1995	LOSL	SA	UA	US	**24.7**	**213.6**	**48.4**	**7.9**	< 3.4	**22.9**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3010.1	3/14/1996	LOSL	SA	UA	US	**118**	**350**	**36.4**	**9.1**	< 3.5	**21.8**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3010.1	9/23/1996	LOSL	SA	UA	US	< 3.4	**79.7059**	**11.1765**	< 3.4	< 3.4	**7.35294**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3010.1	4/14/1997	LOSL	SA	UA	US	**318**	**1127**	**64.4**	**3.5**	< 3.5	**30.3**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3010.1	4/14/1997	QES	SA	UA	US	**250**	**960**	< 200	< 70	< 20	< 35	< 30	< 8	< 5	< 2	< 2	< 20	< 20	< 20	NA	NA	NA
3010.1	9/29/1997	LOSL	SA	UA	US	**18.3**	**128.74**	**33.11**	**20.29**	< 3.4	**15.44**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3010.1	7/31/1998	LOSL	SA	UA	US	**10**	**133**	**24**	**12**	< 3	**15**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3010.1	7/31/1998	QES	SA	UA	US	**1.1**	**87**	< 50	< 1	< 2.5	**9**	< 5	< 2	< 1.2	< 0.5	< 0.5	< 2.5	< 5	< 2.5	NA	NA	NA
3010.1	7/31/1998	LOSL	FD	UA	US	**12.7**	**178**	**31**	**18**	< 3	**16**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3010.1	7/30/1999	LOSL	SA	UA	US	**22.2**	**296.1**	**44.6**	< 3.4	< 3.4	**25.1**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3010.1	7/22/2000	LOSL	SA	UA	US	< 3.4	**24.1**	**17.6**	**4.5**	< 3.4	**11.6**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3010.1	8/28/2001	LOSL	SS	UA	US	**1.014**	**142.9**	**42.7**	< 3.5	< 3.5	**15.3**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3010.1	6/25/2002	LOSL	SA	UA	US	< 0.5	**228**	**37.2**	< 7	< 7	**13.4**	< 7	< 7	< 7	< 7	< 7	< 7	< 7	< 7	NA	NA	NA
3010.1	6/27/2003	LOSL	SS	UA	US	< 0.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3010.1	12/6/2003	CAS-Kelso	SA	UA	US	< 0.5	**13**	**5.3**	**0.17**	**0.11**	**2**	**0.088**	**0.0027**	< 0.02	< 0.02	< 0.02	**0.0039**	< 0.02	**0.0029**	NA	NA	NA
3010.1	7/2/2004	LOSL	SA	UA	US	**1.79**	**40.3**	**6.8**	< 3.5	**3.5**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3010.1	7/2/2004	LOSL	SA	UA	US	< 3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3010.1	11/19/2004	CAS-Kelso	SA	UA	US	**0.22**	**8.7**	**5.3**	**0.17**	**0.084**	**1.2**	**0.07**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
3010.1	6/1/2016	ALS	SA	UA	US	< 0.5	**23**	**7.2**	**0.2**	**0.04**	**1.5**	**0.062**	**0.0033**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**2.7**
3010.1	6/1/2016	LOSL	SA	UA	US	< 3.5	**21.6**	**7.7**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
3010.1	6/1/2016	ALS	FD	UA	US	< 0.5	**24**	**7.7**	**0.21**	**0.04**	**1.7**	**0.074**	**0.0029**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**2.7**
3010.1	6/1/2016	LOSL	FD	UA	US	< 3.5	**16.9**	**6.5**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3010.2	11/19/1991	LOSL	SS	UA	UD	**7**	**42**	**11**	**4**	**5**	**6**	**5**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3010.2	11/19/1991	LOSL	SA	UA	UD	**7**	**42**	**11**	**4**	**5**	**6**	**5**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3010.2	6/25/1992	LOSL	SA	UA	UD	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3010.2	3/16/1993	LOSL	SA	UA	UD	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3010.2	9/1/1993	LOSL	SA	UA	UD	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	NA	NA	NA
3010.2	3/10/1994	LOSL	SA	UA	UD	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3010.2	9/8/1994	LOSL	SA	UA	UD	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3010.2	3/3/1995	LOSL	SA	UA	UD	< 3.4	**14.1**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3010.2	9/7/1995	LOSL	SA	UA	UD	**11.5**	**14.6**	**15.2**	**3.5**	< 3.4	**10.1**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3010.2	3/14/1996	LOSL	SA	UA	UD	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3010.2	9/23/1996	LOSL	SA	UA	UD	< 3.4	**45.5882**	**7.54902**	< 3.4	< 3.4	**5.09804**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3010.2	4/14/1997	LOSL	SA	UA	UD	**94**	**306.3**	**26**	< 3.5	< 3.5	**10.7**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3010.2	9/29/1997	LOSL	SA	UA	UD	**11.5**	**40.49**	**17.48**	< 3.4	< 3.4	**8.93**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3010.2	7/31/1998	LOSL	SA	UA	UD	**8**	**7**	**13**	< 3	< 3	**9**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3010.2	7/29/1999	LOSL	SA	UA	UD	**8**	**9.8**	**22.2**	**27**	< 3.4	**10.6**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3010.2	7/22/2000	LOSL	SA	UA	UD	< 3.4	< 3.4	**9.7**	< 3.4	< 3.4	**5.9**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3010.2	8/28/2001	LOSL	SS	UA	UD	< 0.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3010.2	6/24/2002	LOSL	SA	UA	UD	< 0.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	**4.2**	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3010.2	6/27/2003	LOSL	SS	UA	UD	**2.37**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3010.2	12/6/2003	CAS-Kelso	SA	UA	UD	**160**	**18**	**3.2**	**0.088**	**0.036**	**2.7**	**0.034**	< 0.019	< 0.019	< 0.019	< 0.019	**0.0018**	< 0.019	< 0.019	NA	NA	NA
3010.2	7/2/2004	CAS-Kelso	SA	UA	UD	**240**	**0.2**	**2**	**0.053**	**0.03**	**0.18**	**0.034**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
3010.2	7/2/2004	LOSL	SA	UA	UD	**107.4**	**19.8**	**7.2**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3010.2	7/2/2004	LOSL	FD	UA	UD	**125**	**15**	**5.6**	< 3.5	< 3.5	**6.1**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3010.2	11/19/2004	CAS-Kelso	SA	UA	UD	**110**	**13**	**7**	**0.15**	**0.042**	**6.6**	**0.034**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
3010.2	6/1/2016	ALS	SA	UA	UD	< 0.5	**75**	**23**	**0.61**	**0.15**	**10**	**0.073**	**0.0033**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**1.9**
3010.2	6/1/2016	LOSL	SA	UA	UD	< 3.5	**28.4**	**9.3**	< 3.5	< 3.5	**4**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3011.1	6/16/1992	CAL	UNK	UA	US	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	< 5	NA	NA
3011.1	6/16/1992	CAL	SA	UA	US	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	< 5	NA	NA
3011.1	3/29/1993	CAL	SA	UA	US	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3011.1	3/8/1994	CAL	SA	UA	US	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3011.1	3/7/1995	QES	SA	UA	US	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	**0.3**	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3011.1	3/12/1996	QES	SA	UA	US	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3011.1	4/15/1997	QES	SA	UA	US	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3011.1	8/4/1998	QES	SA	UA	US	< 0.5	< 1	< 2	< 0.04	**0.11**	< 0.2	< 0.2	< 0.08	< 0.05	**0.03**	**0.023**	< 0.1	< 0.2	< 0.1	NA	NA	NA
3011.1	7/29/1999	QES	SA	UA	US	< 0.5	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
3011.1	7/19/2000	STL	SA	UA	US	< 0.5	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
3011.1	8/24/2001	LOSL	SS	UA	US	< 0.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3011.1	8/24/2001	STL	SA	UA	US	< 0.5	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
3011.1	6/20/2002	CAS_K	SA	UA	US	< 0.5	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	NA	NA	NA
3011.1	6/26/2003	CAS-Kelso	SA	UA	US	**0.52**	**0.1**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
3011.1	7/1/2004	CAS-Kelso	SA	UA	US	< 0.5	**0.07**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
3011.1	8/1/2005	CAS-Kelso	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3011.1	11/4/2006	CAS-Kelso	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3011.1	9/15/2007	CAS-Kelso	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3011.1	4/20/2008	CAS-Kelso	SA	UA	US	< 0.5	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3011.1	4/20/2008	CAS-Kelso	SA	UA	US	< 1	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.5	**0.15**	**0.11**
3011.1	9/24/2008	CAS-Kelso	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3011.1	9/28/2009	CAS	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3011.1	9/6/2010	CAS	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5
3011.1	9/15/2012	CAS	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5
3011.1	9/21/2013	ALS	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.35**
3011.1	9/23/2014	ALS	SA	UA	US	< 0.5	**0.071**	< 0.02	**0.0071**	**0.011**	**0.0043**	**0.018**	**0.0059**	< 0.02	**0.0053**	< 0.02	**0.005**	< 0.02	< 0.02	NA	NA	**1.8**
3011.1	7/24/2015	ALS	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.38**
3011.1	9/3/2016	ALS	SA	UA	US	< 0.5	< 0.02	< 0.02	< 0.027	**0.019**	< 0.02	**0.033**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.42**
3011.2	12/2/1987	CAL	SA	UA	UM	NA	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	< 0.5	NA	NA
3011.2	7/9/2016	ALS	SA	UA	UM	< 0.5	**0.22**	**0.21**	**0.11**	**0.097**	**0.19**	**0.22**	**0.0043**	< 0.021	< 0.021	< 0.021	**0.0046**	< 0.021	< 0.021	NA	NA	**41.8**
3011.3	6/26/1987	CAL	SS	UA	UM	NA	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3011.3	6/26/1987	CAL	SA	UA	UM	NA	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	< 0.5	NA	NA
3011.3	12/4/1987	CAL	SA	UA	UM	NA	**5.2**	< 2	< 0.7	**0.25**	**0.28**	**0.42**	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	**0.6**	NA	NA
3011.3	7/9/2016	ALS	SA	UA	UM	**0.072**	**0.72**	**0.13**	**0.12**	**0.095**	**0.16**	**0.21**	**0.0086**	< 0.02	**0.0044**	< 0.02	**0.0096**	< 0.02	< 0.02	NA	NA	**12.9**
3012.1	5/12/1987	CAL	UNK	UA/IZ	UD	NA	< 200	< 200	**2.3**	**6**	**50**	**4.8**	< 0.2	< 0.05	**0.03**	< 0.02	< 2	< 0.2	< 0.2	NA	NA	NA
3012.1	5/12/1987	CAL	SSFD	UA/IZ	UD	NA	< 200	< 200	**2.6**	**7.3**	**39**	**5.1**	**0.2**	< 0.05	**0.02**	< 0.02	< 2	< 0.2	< 0.2	NA	NA	NA
3012.1	5/12/1987	CAL	SS	UA/IZ	UD	NA	< 200	< 200	**1.8**	**6**	**33**	**3.5**	< 0.02	< 0.05	**0.02**	< 0.02	< 2	< 0.2	< 0.2	NA	NA	NA
3012.1	5/12/1987	CAL	SS	UA/IZ	UD	NA	< 200	< 200	**2.3**	**7**	**53**	**4.9**	< 0.2	< 0.05	**0.02**	< 0.02	< 2	< 0.2	< 0.2	NA	NA	NA
3012.1	5/12/1987	CAL	SA	UA/IZ	UD	NA	**23**	< 200	**2**	**5**	**47**	**4**	< 0.2	< 0.05	< 0.02	< 0.02	< 2	< 0.2	< 0.2	NA	NA	NA
3012.1	6/3/1987	CAL	SA	UA/IZ	UD	NA	**60**	< 200	**5.9**	**6.1**	**61**	**3.8**	< 0.8	< 0.05	< 0.02	< 0.02	< 20	< 0.2	< 0.2	NA	NA	NA
3012.1	6/17/1987	CAL	SA	UA/IZ	UD	NA	< 200	< 200	< 7	**7.6**	**76**	**7.3**	< 0.8	< 0.5	< 0.2	< 0.2	< 2	< 2	< 2	NA	NA	NA
3012.1	6/29/1987	CAL	SA	UA/IZ	UD	**400**	**460**	< 200	**9.4**	**9.2**	**75**	**5.8**	< 0.8	**0.067**	**0.047**	**0.031**	< 2	< 0.2	< 0.2	NA	NA	NA
3012.1	7/14/1987	CAL	SA	UA/IZ	UD	**250**	**84**	< 200	**6.8**	**4.6**	**85**	**3.9**	**0.19**	**0.06**	**0.04**	**0.02**	< 2	< 0.2	< 0.2	NA	NA	NA
3012.1	7/28/1987	CAL	SA	UA/IZ	UD	**59**	< 20	< 200	**3.4**	**5.3**	**41**	**3.4**	< 0.8	< 0.5	< 0.2	< 0.2	< 2	< 2	< 2	NA	NA	NA
3012.1	8/10/1987	CAL	SA	UA/IZ	UD	NA	**890**	< 200	**8.2**	**18**	**89**	**14**	**3.7**	**1.9**	**1.6**	**1**	< 20	< 2	< 2	NA	NA	NA
3012.1	8/25/1987	CAL	SA	UA/IZ	UD	NA	**340**	< 200	**6.5**	**13**	**68**	**9.1**	**2.3**	**0.85**	**0.88**	**0.58**	< 20	< 2	< 2	NA	NA	NA
3012.1	9/9/1987	CAL	SA	UA/IZ	UD	**160**	< 20	< 20	< 0.7	**4.2**	**16**	**2.5**	< 0.8	< 0.05	**0.028**	< 0.02	< 2	< 0.2	< 0.2	NA	NA	NA
3012.1	9/22/1987	CAL	SA	UA/IZ	UD	NA	< 20	< 20	< 0.7	**2.2**	**10**	< 0.3	< 0.08	< 0.05	**0.023**	< 0.02	< 2	< 0.2	< 0.2	NA	NA	NA
3012.1	10/6/1987	CAL	SA	UA/IZ	UD	**900**	**640**	< 200	**11**	**17**	**140**	**11**	**2.4**	**0.72**	**0.71**	**0.47**	< 2	< 2	< 2	NA	NA	NA
3012.1	10/20/1987	CAL	SA	UA/IZ	UD	NA	**1700**	< 200	**11**	**16**	**140**	**12**	**2.3**	**0.67**	**0.72**	**0.48**	< 2	< 2	< 2	NA	NA	NA
3012.1	11/5/1987	CAL	SA	UA/IZ	UD	**900**	**1000**	< 200	**6.9**	**7.9**	**90**	**4.9**	< 0.8	< 0.5	< 0.2	< 0.2	< 2	< 2	< 2	NA	NA	NA
3012.1	12/10/1987	CAL	SA	UA/IZ	UD	**250**	**400**	< 200	**9.2**	**17**	**110**	**15**	**3**	**1.1**	**1.1**	**0.73**	< 20	< 2	< 2	NA	NA	NA

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
3012.1	1/26/1988	CAL	SA	UA/IZ	UD	**260**	**680**	< 200	**10**	**18**	**110**	**14**	**2.6**	**0.98**	**0.99**	**0.67**	< 20	< 2	< 2	NA	NA	NA
3012.1	4/12/1988	CAL	SA	UA/IZ	UD	**400**	**1500**	< 200	**30**	**71**	**160**	**58**	**12**	**4.8**	**4.2**	**2.8**	< 200	< 2	< 2	NA	NA	NA
3012.1	4/18/1988	CAL	SS	UA/IZ	UD	NA	**920**	< 200	**5.3**	**7.6**	**62**	**9.8**	**1**	**0.46**	**0.41**	**0.28**	< 2	< 0.2	**0.21**	NA	NA	NA
3012.1	4/18/1988	CAL	SA	UA/IZ	UD	NA	**1000**	< 200	**6.2**	**8.2**	**66**	**7.4**	**0.9**	**0.38**	**0.34**	**0.27**	< 2	< 0.2	< 0.2	NA	NA	NA
3012.1	6/24/1988	CAL	SA	UA/IZ	UD	**150**	**420**	< 200	**8.5**	**12**	**90**	**7.7**	**2.6**	**0.46**	**0.34**	**0.24**	< 2	< 0.2	< 0.2	NA	NA	NA
3012.1	7/22/1988	CAL	SA	UA/IZ	UD	**95**	**250**	< 200	**4.1**	**4.2**	**50**	< 3	< 0.8	< 0.5	< 0.2	< 0.2	< 2	< 2	< 2	NA	NA	NA
3012.1	8/17/1988	ENS	SA	UA/IZ	UD	**15**	**110**	< 400	**4.7**	**4.5**	**51**	**3.3**	**0.48**	**0.11**	**0.094**	**0.066**	< 4	< 0.4	< 0.4	NA	NA	NA
3012.1	9/29/1989	CAL	SA	UA/IZ	UD	**150**	**1200**	< 1000	**16**	**23**	**120**	**16**	**3.1**	**1.2**	**1.1**	**0.58**	< 5	< 2	< 0.5	NA	NA	NA
3012.1	11/6/1991	LOSL	SA	UA/IZ	UD	**61**	**652**	**163**	**17**	**22**	**99**	**17**	< 11	< 11	< 11	< 11	< 11	< 11	< 11	NA	NA	NA
3012.1	2/14/1992	LOSL	SA	UA/IZ	UD	**211**	**920**	**185**	**34**	**72**	**120**	**68**	**17**	< 10	< 10	< 10	**19**	< 10	< 10	NA	NA	NA
3012.1	6/2/1992	LOSL	SA	UA/IZ	UD	**247**	**1171**	**123**	**14**	< 14	**72**	< 14	< 14	< 14	< 14	< 14	< 14	< 14	< 14	NA	NA	NA
3012.1	11/9/1992	LOSL	SA	UA/IZ	UD	**157**	**652**	**85**	**7**	**6**	**54**	**4**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3012.1	9/13/2013	LOSL	SA	UA/IZ	UD	**0.83**	**163**	**106**	**12**	**19.5**	**65.8**	**14.2**	**4.2**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3012.1	9/13/2013	LOSL	FD	UA/IZ	UD	**0.65**	**139**	**88.9**	**10.2**	**15.8**	**52.1**	**11.6**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3012.1	7/30/2015	LOSL	SA	UA/IZ	UD	**20.8**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3012.1	7/30/2015	LOSL	FD	UA/IZ	UD	**15.6**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3012.1	9/24/2016	ALS	SA	UA/IZ	UD	**0.31**	**80**	**110**	**8**	**12**	**62**	**6**	**1**	**0.35**	**0.51**	**0.2**	**0.99**	**0.033**	**0.13**	NA	NA	**11.6**
3013.1	6/26/1987	CAL	UNK	UA	US	**3.2**	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3013.1	6/26/1987	CHA	SS	UA	US	**24**	**0.6**	< 1	**0.3**	< 0.5	< 0.5	**0.75**	**0.15**	**1.1**	< 0.1	< 0.1	**0.11**	< 0.1	< 0.1	NA	NA	NA
3013.1	6/26/1987	CAL	SA	UA	US	**2.9**	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	< 0.5	NA	NA
3013.1	6/26/1987	CHA	SA	UA	US	**24**	**0.6**	< 1	**0.3**	< 0.5	< 0.5	**0.75**	**0.15**	**1.1**	< 0.1	< 0.1	**0.11**	< 0.1	< 0.1	NA	NA	NA
3013.1	9/22/1987	CAL	SS	UA	US	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5	NA	NA
3013.1	9/22/1987	CAL	SS	UA	US	**130**	**130**	< 20	< 0.7	< 0.2	**3.2**	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3013.1	9/22/1987	CHA	SA	UA	US	**54**	< 50	< 50	< 25	< 25	< 25	< 50	< 25	< 50	< 50	< 50	< 25	< 50	< 50	**1.3**	NA	NA
3013.1	9/22/1987	CHA	FD	UA	US	NA	**31**	**3**	< 1	< 1	**1**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	NA
3013.1	12/2/1987	CAL	SS	UA	US	**530**	< 200	< 200	**1.1**	**0.87**	< 20	< 3	< 0.8	< 0.5	< 0.2	< 0.2	< 2	< 2	< 2	NA	NA	NA
3013.1	12/2/1987	CAL	SA	UA	US	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.8**	NA	NA
3013.1	12/2/1987	CHA	SA	UA	US	**179**	< 1	**45**	< 1	**1**	**15**	**1**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1.1**	NA	NA
3013.1	4/11/1988	CAL	SA	UA	US	**2.3**	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	< 0.5	NA	NA
3013.1	4/11/1988	CAL	FD	UA	US	**2.6**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3013.1	6/15/1992	CAL	SA	UA	US	**110**	< 9	< 10	< 0.7	< 0.2	< 1	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3013.1	6/15/1992	CAL	SA	UA	US	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5	NA	NA
3013.1	3/30/1993	CAL	SA	UA	US	**390**	< 50	< 10	< 0.7	< 0.5	< 1	< 1	< 0.5	< 0.5	< 0.2	< 0.2	< 0.5	< 2	< 0.5	NA	NA	NA
3013.1	3/7/1994	CAL	SA	UA	US	**1400**	< 15	**4.1**	< 0.7	< 0.2	< 0.5	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3013.1	3/21/1994	LOSL	SA	UA	US	**897**	**48.5**	**9.8**	< 3.5	< 3.5	**3.5**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3013.1	3/13/1995	QES	SA	UA	US	**13**	< 2.4	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.04	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3013.1	3/19/1996	QES	SA	UA	US	**0.69**	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3013.1	4/15/1997	QES	SA	UA	US	**0.51**	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3013.1	7/30/1998	LOSL	SA	UA	US	**38.3**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3013.1	7/30/1998	QES	SA	UA	US	NA	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
3013.1	7/30/1998	QES	FD	UA	US	**10**	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
3013.1	8/2/1999	QES	SA	UA	US	**110**	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
3013.1	7/18/2000	STL	SA	UA	US	**2000**	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
3013.1	9/5/2001	STL	SA	UA	US	**4300**	**1100**	< 100	< 2	< 5	**15**	< 10	< 4	< 2.5	< 1	< 1	< 5	< 10	< 5	NA	NA	NA
3013.1	6/27/2002	CAS_K	SA	UA	US	**280**	**0.049**	**0.45**	**0.084**	**0.084**	< 0.021	**0.11**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	NA	NA	NA
3013.1	7/1/2003	CAS-Kelso	SA	UA	US	**1100**	**0.059**	**4.7**	**0.36**	**0.24**	**1.4**	**0.18**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
3013.1	7/6/2004	CAS-Kelso	SA	UA	US	**1500**	**0.062**	**0.26**	**0.3**	**0.099**	**0.037**	**0.19**	< 0.02	< 0.02	< 0.02	< 0.02	**0.023**	< 0.02	< 0.02	NA	NA	NA
3013.1	8/1/2005	CAS-Kelso	SA	UA	US	**5100**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3013.1	11/11/2006	LOSL	SS	UA	US	**6716.3**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3013.1	11/11/2006	CAS-Kelso	SA	UA	US	**4800**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3013.1	9/22/2007	LOSL	SS	UA	US	**5375**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3013.1	9/22/2007	CAS-Kelso	SA	UA	US	**5300**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3013.1	4/28/2008	CAS-Kelso	SA	UA	US	**27**	**16**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3013.1	4/28/2008	CAS-Kelso	SA	UA	US	**28**	< 0.22	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	**0.05**	**0.36**	**0.46**
3013.1	9/28/2008	LOSL	SS	UA	US	**4752**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3013.1	10/6/2008	CAS-Kelso	SA	UA	US	**6500**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3013.1	9/21/2009	LOSL	SS	UA	US	**3310**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3013.1	9/21/2009	CAS	SA	UA	US	**4100**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3013.1	9/4/2010	CAS	SA	UA	US	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**3.4**
3013.1	9/4/2010	LOSL	SA	UA	US	**4550**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3013.1	9/17/2011	LOSL	SA	UA	US	**1440**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3013.1	9/11/2012	CAS	SA	UA	US	NA	**0.18**	**2.5**	< 0.02	**0.052**	**0.16**	**0.076**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**1**
3013.1	9/11/2012	LOSL	SA	UA	US	**242**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3013.1	9/14/2013	ALS	SA	UA	US	NA	**0.78**	**3**	**0.28**	**0.056**	**0.043**	**0.087**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.93**	NA	**0.9**
3013.1	9/14/2013	LOSL	SA	UA	US	**186**	**151**	< 17.5	< 17.5	< 17.5	< 17.5	< 17.5	< 17.5	< 17.5	< 17.5	< 17.5	< 17.5	< 17.5	< 17.5	NA	NA	NA
3013.1	9/9/2014	ALS	SA	UA	US	NA	**120**	**25**	**1.8**	**0.36**	**7.3**	**0.28**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**2.35**
3013.1	9/9/2014	LOSL	SA	UA	US	**1330**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3013.1	8/1/2015	ALS	SA	UA	US	NA	**0.023**	**0.11**	**0.24**	**0.015**	**0.023**	**0.017**	**0.0041**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.63**
3013.1	8/1/2015	LOSL	SA	UA	US	**12.4**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3013.1	9/21/2016	ALS	SA	UA	US	**360**	**47**	**3**	**0.69**	**0.076**	**1**	**0.053**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.97**
3013.1	9/21/2016	ALS	FD	UA	US	**350**	**49**	**2.9**	**0.68**	**0.065**	**0.99**	**0.054**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.0033**	**0.0055**	NA	NA	**0.95**
3013.2	6/26/1987	CAL	SA	UA	UD	**2.3**	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	< 0.5	NA	NA
3013.2	12/4/1987	CAL	UNK	UA	UD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.72**	NA	NA
3013.2	12/4/1987	CHA	UNK	UA	UD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1	NA	NA
3013.2	12/4/1987	CAL	SSFD	UA	UD	**270**	**1500**	< 200	< 7	< 2	**20**	< 3	< 0.8	< 0.5	< 0.2	< 0.2	< 2	< 2	< 2	NA	NA	NA
3013.2	12/4/1987	CAL	SS	UA	UD	**240**	**1200**	< 200	< 7	< 2	**15**	< 3	< 0.8	< 0.5	< 0.2	< 0.2	< 2	< 2	< 2	NA	NA	NA
3013.2	12/4/1987	CAL	SA	UA	UD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1	NA	NA
3013.2	12/4/1987	CHA	SA	UA	UD	**203**	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	NA	NA	NA
3013.2	12/4/1987	CHA	FD	UA	UD	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	NA	NA	NA
3013.2	5/31/2016	ALS	SA	UA	UD	**20**	**0.0064**	**0.0065**	**0.22**	< 0.02	**0.042**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.6**

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
3013.2	5/31/2016	LOSL	SA	UA	UD	**4.3**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3013.3	6/26/1987	CAL	SA	IZ/LA	LS	**2**	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	< 0.5	NA	NA
3013.3	12/4/1987	CAL	SS	IZ/LA	LS	**0.32**	< 4	< 4	< 1.4	< 0.4	< 0.4	< 0.6	< 0.16	< 0.1	< 0.04	< 0.04	< 0.4	< 0.4	< 0.4	NA	NA	NA
3013.3	12/4/1987	CAL	SA	IZ/LA	LS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5	NA	NA
3013.3	12/4/1987	CHA	SA	IZ/LA	LS	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	NA	NA	NA
3014.1	4/4/1989	CAL	SA	UA	US	< 0.5	< 20	< 20	< 0.7	**0.21**	< 2	**0.37**	< 0.8	< 0.5	< 0.2	< 0.2	< 2	< 2	< 2	NA	NA	NA
3014.1	5/31/1989	CAL	SA	UA	US	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	**0.026**	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3014.1	5/31/1989	CAL	FD	UA	US	**0.57**	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	**0.025**	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3014.1	10/1/1989	CAL	SA	UA	US	**1.2**	< 5	< 10	< 0.7	< 0.2	< 1	< 1	< 0.5	< 0.5	< 0.2	< 0.2	< 0.5	< 2	< 0.5	NA	NA	NA
3014.1	11/8/1989	CAL	SA	UA	US	**1.4**	< 20	< 20	< 7	< 2	< 2	< 3	< 0.8	< 5	< 2	< 2	< 20	< 20	< 20	NA	NA	NA
3014.1	3/18/1991	CAL	SA	UA	US	**0.98**	< 5	< 10	< 2	< 5	< 1	< 10	< 5	< 50	< 20	< 20	< 50	< 200	< 5	NA	NA	NA
3014.1	9/16/1991	CAL	UNK	UA	US	**10**	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.5	< 0.5	< 0.2	< 0.2	< 0.5	< 2	< 0.5	NA	NA	NA
3014.1	9/16/1991	CAL	SA	UA	US	**18**	< 50	< 100	< 2	< 5	< 10	< 10	< 5	< 5	< 2	< 2	< 5	< 20	< 5	NA	NA	NA
3014.1	3/23/1992	CAL	SA	UA	US	**16**	< 5	< 5	< 0.7	< 0.5	< 1	< 1	< 5	< 5	< 2	< 2	< 5	< 20	< 5	NA	NA	NA
3014.1	9/24/1992	CAL	SA	UA	US	**73**	< 5	< 10	< 0.7	< 0.2	< 1	< 1	< 0.5	< 0.5	< 0.2	< 0.2	< 0.5	< 2	< 0.5	NA	NA	NA
3014.1	3/9/1993	CAL	SA	UA	US	**34**	< 5.3	< 11	< 0.74	< 0.53	< 1.1	< 1.1	< 0.53	< 5.3	< 2.1	< 2.1	< 0.53	< 21	< 5.3	NA	NA	NA
3014.1	9/2/1993	CAL	SA	UA	US	**80**	< 50	< 100	< 70	< 5	< 10	< 10	< 5	< 50	< 20	< 20	< 50	< 200	< 50	NA	NA	NA
3014.1	3/21/1994	CAL	UNK	UA	US	**720**	< 5	< 10	< 0.7	< 0.5	< 1	< 1	< 0.5	< 0.5	< 0.2	< 0.2	< 0.5	< 2	< 0.5	NA	NA	NA
3014.1	3/21/1994	CAL	SA	UA	US	**1500**	< 5	< 10	< 0.7	< 0.5	< 1	< 1	< 0.5	< 0.5	< 0.2	< 0.2	< 0.5	< 2	< 0.5	NA	NA	NA
3014.1	8/16/1994	QES	SA	UA	US	**180**	< 5	< 10	< 0.7	< 0.5	< 1	< 1	< 0.5	< 0.5	< 0.2	< 0.2	< 0.5	< 1.6	< 0.5	NA	NA	NA
3014.1	3/16/1995	QES	SA	UA	US	**5.1**	< 2.5	< 4.9	< 0.7	< 0.25	< 0.49	< 0.49	< 0.25	< 0.49	< 0.2	< 0.2	< 0.49	< 2	< 0.49	NA	NA	NA
3014.1	8/15/1995	QES	UNK	UA	US	**77**	< 2.4	< 4.8	< 0.7	< 0.24	< 0.48	< 0.48	< 0.24	< 0.24	< 0.1	< 0.1	< 0.48	< 1	< 0.24	NA	NA	NA
3014.1	8/15/1995	QES	SA	UA	US	**86**	< 2	< 3.1	< 0.7	< 0.2	< 0.31	< 0.31	< 0.16	< 0.16	< 0.063	< 0.063	< 0.2	< 0.63	< 0.2	NA	NA	NA
3014.1	3/25/1996	QES	SA	UA	US	**0.58**	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3014.1	5/31/2016	ALS	SA	UA	US	< 0.5	< 0.02	< 0.02	**0.18**	< 0.02	< 0.02	< 0.02	**0.0033**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.4**
3014.1	5/31/2016	LOSL	SA	UA	US	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3014.2	4/4/1989	CAL	SA	UA	UD	**1**	< 20	< 20	< 0.7	**1**	< 2	**0.65**	**0.12**	< 0.05	**0.095**	**0.044**	< 2	< 0.2	< 0.2	NA	NA	NA
3014.2	5/31/1989	CAL	SA	UA	UD	**1.1**	< 2	< 2	< 0.7	**0.21**	< 0.2	< 0.3	< 0.08	< 0.05	**0.049**	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3014.2	10/1/1989	CAL	SA	UA	UD	< 0.5	< 5	< 10	< 0.7	**0.38**	< 1	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3014.2	11/9/1989	CAL	SA	UA	UD	**2.4**	< 2	< 2	< 0.7	NA	< 0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3014.2	5/31/2016	ALS	SA	UA	UD	< 0.5	**0.0045**	**0.0045**	**0.17**	< 0.02	**0.0055**	< 0.02	**0.0037**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.5**
3014.2	5/31/2016	LOSL	SA	UA	UD	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3014.3	4/4/1989	CAL	UNK	IZ/LA	LS	**3.3**	< 20	< 20	< 0.7	**1.1**	< 2	**0.68**	**0.13**	< 0.05	**0.075**	**0.038**	< 2	< 0.2	< 0.2	NA	NA	NA
3014.3	4/4/1989	CAL	SA	IZ/LA	LS	**2.7**	< 20	< 20	< 0.7	**3**	< 2	< 3	< 0.8	**0.092**	**0.25**	< 0.2	< 2	< 0.2	< 0.2	NA	NA	NA
3014.3	5/31/1989	CAL	SA	IZ/LA	LS	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.2	< 0.2	< 0.2	< 0.2	NA	NA	NA
3014.3	10/1/1989	CAL	SA	IZ/LA	LS	**1.5**	**9.2**	< 10	**2**	**3.6**	**5.1**	**3.1**	**0.41**	**0.2**	**0.17**	**0.09**	**1**	< 0.2	< 0.2	NA	NA	NA
3014.3	11/9/1989	CAL	SA	IZ/LA	LS	**2.9**	< 20	< 2	< 0.7	NA	< 0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3014.4	10/1/1990	CAL	SA			**0.98**	< 5	< 10	< 0.7	< 5	< 1	< 10	< 5	< 5	< 2	< 2	< 5	< 20	< 5	NA	NA	NA
3015.1	6/29/1987	CAL	SA	UA	UD	**110**	**560**	< 200	< 7	**2.8**	**55**	< 3	< 0.8	< 0.5	< 0.2	< 0.2	< 20	< 0.2	< 0.2	NA	NA	NA
3015.1	7/14/1987	CAL	SA	UA	UD	**110**	**990**	< 200	**14**	**5**	**130**	**3.8**	< 0.8	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
3015.1	7/28/1987	CAL	SA	UA	UD	**150**	< 200	< 200	**6.1**	**3.8**	**56**	**2.6**	< 0.8	< 0.5	< 0.2	< 0.2	< 2	< 2	< 2	NA	NA	NA
3015.1	9/9/1987	CAL	SS	UA	UD	**170**	< 200	< 20	< 7	< 2	< 2	< 3	< 0.8	< 0.5	< 0.2	< 0.2	< 2	< 2	< 2	NA	NA	NA
3015.1	1/26/1988	CAL	SSFD	UA	UD	**68**	**85**	< 200	**2.7**	**3.9**	**60**	**3.2**	< 0.8	< 0.5	< 0.2	< 0.2	< 2	< 2	< 2	NA	NA	NA
3015.1	1/26/1988	CAL	SS	UA	UD	**65**	< 200	< 200	**4**	**3.9**	**62**	**2.9**	< 0.8	< 0.5	< 0.2	< 0.2	< 2	< 2	< 2	NA	NA	NA
3015.1	7/22/1988	CAL	SS	UA	UD	**78**	**560**	< 200	**5.5**	**3.6**	**83**	< 3	< 0.8	< 0.5	< 0.2	< 0.2	< 2	< 2	< 2	NA	NA	NA
3015.1	8/17/1988	ENS	SS	UA	UD	**50**	**420**	< 400	**4.3**	**2.2**	**51**	**1.8**	< 0.16	< 0.1	< 0.04	< 0.04	< 0.4	< 0.4	< 0.4	NA	NA	NA
3015.1	10/2/1989	CAL	SA	UA	UD	**150**	< 500	< 1000	**6.2**	NA	< 100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3015.1	11/19/1990	CAL	SA	UA	UD	**1800**	< 50	< 100	< 0.7	**2.9**	< 10	**2**	< 0.08	< 0.05	< 0.02	< 0.02	< 0.5	< 0.2	< 0.2	NA	NA	NA
3015.1	11/19/1991	LOSL	SSFD	UA	UD	**5**	**6**	**5**	< 3	**15**	**5**	**5**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3015.1	11/19/1991	LOSL	SS	UA	UD	**8**	**6**	**5**	< 3	**13**	**5**	**8**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3015.1	11/19/1991	LOSL	SA	UA	UD	**8**	**6**	**5**	< 3	**13**	**5**	**8**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3015.1	2/14/1992	LOSL	SA	UA	UD	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NA	NA	NA
3015.1	6/3/1992	LOSL	SS	UA	UD	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3015.1	6/3/1992	CAL	SA	UA	UD	NA	< 5	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	**0.025**	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3015.1	6/3/1992	LOSL	SA	UA	UD	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3015.1	8/28/1992	LOSL	SA	UA	UD	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3015.1	11/9/1992	LOSL	SA	UA	UD	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3015.1	3/7/1994	LOSL	SA	UA	UD	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3015.1	9/10/2013	LOSL	SA	UA	UD	**1.21**	**193**	**68**	**4.4**	**3.5**	**35.7**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3015.1	7/30/2015	LOSL	SA	UA	UD	**28.2**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3015.1	9/3/2016	ALS	SA	UA	UD	< 0.5	**180**	**63**	**4.4**	**2.9**	**36**	**1.5**	**0.071**	**0.011**	**0.015**	**0.0058**	**0.081**	< 0.02	**0.0059**	NA	NA	**9.44**
3016.1	6/29/1987	CAL	SA	UA	UD	NA	**2300**	< 200	**17**	**18**	**170**	**13**	**1.8**	**0.93**	**0.72**	**0.47**	< 20	< 2	< 2	< 2	NA	NA
3016.1	6/29/1987	CHA	SA	UA	UD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**1.3**	NA	NA
3016.1	7/14/1987	CAL	SA	UA	UD	**510**	**2700**	< 200	**18**	**6.9**	**350**	**5.4**	< 0.8	< 0.5	< 0.2	< 0.2	< 2	< 2	< 2	NA	NA	NA
3016.1	9/9/1987	CAL	SSFD	UA	UD	**510**	**690**	< 200	**22**	**47**	**140**	**36**	**9.8**	< 5	**3.1**	**2.1**	**9.1**	< 20	< 20	NA	NA	NA
3016.1	9/9/1987	CAL	SS	UA	UD	**76**	**210**	< 200	**13**	**38**	**84**	**30**	**11**	< 5	**3**	**1.9**	**7.8**	< 20	< 20	NA	NA	NA
3016.1	10/6/1987	CAL	SS	UA	UD	**540**	**1900**	< 200	**11**	**9.7**	**110**	**7.2**	**1.4**	< 0.5	**0.28**	**0.2**	< 2	< 2	< 2	NA	NA	NA
3016.1	10/20/1987	CAL	SS	UA	UD	NA	**2400**	< 2000	**29**	**55**	**180**	**46**	< 11	< 5	**3.4**	**2.4**	< 20	< 20	< 20	NA	NA	NA
3016.1	11/5/1987	CAL	SS	UA	UD	**700**	**1210**	< 200	**22**	**48**	**140**	**39**	< 8	< 5	**3.2**	**2.2**	< 200	< 20	< 2	NA	NA	NA
3016.1	12/9/1987	CHA	SA	UA	UD	< 100	**35**	**31**	< 0.9	**3**	**1**	**2**	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	**3.5**	NA	NA
3016.1	12/10/1987	CAL	SA	UA	UD	**350**	**240**	< 200	< 7	**6.6**	**67**	**5.3**	< 0.8	< 0.5	**0.26**	< 0.2	< 2	< 2	< 2	**2.9**	NA	NA
3016.1	1/26/1988	CAL	SS	UA	UD	**170**	**67**	< 200	**4.5**	**4.7**	**70**	**3.3**	< 0.8	< 0.5	< 0.2	< 0.2	< 2	< 2	< 2	NA	NA	NA
3016.1	8/17/1988	ENS	SS	UA	UD	**140**	**1400**	< 400	**8.5**	**5.3**	**95**	**3.3**	< 1.6	< 1	< 0.4	< 0.4	< 4	< 4	< 4	NA	NA	NA
3016.1	10/2/1989	CAL	SS	UA	UD	**450**	**1600**	< 1000	**12**	**12**	< 100	**9**	**0.99**	**0.69**	**0.47**	**0.24**	< 50	< 2	< 0.5	NA	NA	NA
3016.1	11/8/1991	LOSL	SA	UA	UD	**33**	**106**	**65**	**6**	**13**	**34**	**6**	< 5	< 5	< 5	< 5	< 5	< 5	< 5	NA	NA	NA
3016.1	11/16/1991	LOSL	SA	UA	UD	**112**	**383**	**106**	**11**	**15**	**56**	**8**	< 5	< 5	< 5	< 5	< 5	< 5	< 5	NA	NA	NA
3016.1	2/13/1992	LOSL	SS	UA	UD	**1148**	**1255**	**218**	**22**	**12**	**98**	**11**	< 5	< 5	< 5	< 5	< 5	< 5	< 5	NA	NA	NA
3016.1	2/13/1992	LOSL	SA	UA	UD	**1148**	**1255**	**218**	**22**	**12**	**98**	**11**	< 5	< 5	< 5	< 5	< 5	< 5	< 5	NA	NA	NA
3016.1	5/29/1992	LOSL	SA	UA	UD	**14062**	**8216**	**11536**	**4474**	**10124**	**7526**	**9495**	**2278**	**701**	**753**	< 309	**2454**	< 309	< 309	NA	NA	NA
3016.1	11/9/1992	LOSL	SA	UA	UD	**6646**	**4687**	**5446**	**2297**	**5421**	**5000**	**4985**	**969**	< 154	**415**	< 154	**1097**	< 154	< 154	NA	NA	NA

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
3016.1	9/13/2013	LOSL	SA	UA	UD	**1.37**	**582**	**75.4**	< 3.5	< 3.5	**43.8**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3016.1	7/30/2015	LOSL	SA	UA	UD	**13.7**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3016.1	9/20/2016	ALS	SA	UA	UD	< 0.5	**910**	**120**	**8.4**	**5.9**	**70**	**3.4**	**0.12**	**0.014**	**0.018**	**0.0075**	**0.12**	< 0.02	**0.0079**	NA	NA	**5.55**
3017.1	5/12/1987	CAL	UNK	UA	US	NA	**720**	< 200	< 7	< 2	**33**	< 3	< 0.8	< 0.5	< 0.2	< 0.2	< 2	< 2	< 2	NA	NA	NA
3017.1	5/12/1987	CAL	SSFD	UA	US	NA	**1100**	< 200	< 7	< 2	**28**	< 3	< 0.8	< 0.5	< 0.2	< 0.2	< 20	< 2	< 2	NA	NA	NA
3017.1	5/12/1987	CAL	SS	UA	US	NA	**1100**	< 200	**2**	**0.9**	< 50	**0.8**	< 0.8	< 0.05	< 0.02	< 0.02	< 2	< 0.2	< 0.2	NA	NA	NA
3017.1	5/12/1987	CAL	SS	UA	US	NA	**1200**	< 200	< 7	< 2	**62**	< 3	< 0.8	< 0.5	< 0.2	< 0.2	< 2	< 2	< 2	NA	NA	NA
3017.1	5/12/1987	CAL	SA	UA	US	NA	**790**	< 200	< 7	< 2	**40**	< 3	< 0.8	< 0.5	< 0.2	< 0.2	< 2	< 2	< 2	NA	NA	NA
3017.1	6/3/1987	CAL	UNK	UA	US	NA	**480**	< 200	**1.9**	**1.2**	**52**	**0.96**	< 0.08	< 0.05	< 0.02	< 0.02	< 20	< 0.2	< 0.2	NA	NA	NA
3017.1	6/3/1987	CAL	SA	UA	US	NA	**870**	< 200	**2.4**	**1.4**	**65**	**0.95**	< 0.08	< 0.05	< 0.02	< 0.02	< 20	< 0.2	< 0.2	NA	NA	NA
3017.1	6/17/1987	CAL	SA	UA	US	NA	**390**	< 200	**1.5**	**0.87**	**36**	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3017.1	6/29/1987	CAL	SA	UA	US	**350**	**1500**	< 200	< 7	< 2	**54**	< 3	< 0.8	< 0.5	< 0.2	< 0.2	< 20	< 2	< 2	NA	NA	NA
3017.1	7/15/1987	CAL	SA	UA	US	**96**	**1200**	< 200	**1.9**	**0.96**	**42**	**0.72**	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3017.1	7/28/1987	CAL	SA	UA	US	**220**	**940**	< 200	**2.7**	**1.4**	**45**	< 3	< 0.8	< 0.5	< 0.2	< 0.2	< 2	< 2	< 2	NA	NA	NA
3017.1	8/25/1987	CAL	SS	UA	US	NA	**830**	< 200	**1.9**	**1**	**38**	< 2	< 0.8	< 0.5	< 0.2	< 0.2	< 2	< 2	< 2	NA	NA	NA
3017.1	9/22/1987	CAL	SS	UA	US	NA	< 200	< 200	< 0.7	**0.49**	< 20	**0.39**	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3017.1	7/22/1988	CAL	SS	UA	US	**180**	**1300**	< 200	**3.6**	**3**	**70**	< 3	< 0.8	< 0.5	< 0.2	< 0.2	< 2	< 2	< 2	NA	NA	NA
3017.1	8/17/1988	ENS	SS	UA	US	**160**	**940**	< 400	**2.8**	**2.2**	**57**	**1.4**	**0.16**	< 0.1	< 0.04	< 0.04	< 4	< 0.4	< 0.4	NA	NA	NA
3017.1	9/28/1989	CAL	SA	UA	US	**190**	**1600**	< 1000	**7.2**	**12**	< 100	**9.3**	**1.8**	< 0.5	**0.46**	**0.24**	< 5	< 2	< 0.5	NA	NA	NA
3017.1	11/5/1991	CAL	SA	UA	US	**170**	**2400**	< 1000	**28**	**47**	**250**	< 26	< 7	< 5	< 3	< 2	< 50	< 2	< 0.5	NA	NA	NA
3017.1	11/5/1991	LOSL	SA	UA	US	**191**	**1533**	**258**	**34**	**43**	**70**	**38**	< 6	**9**	**16**	< 6	< 6	< 6	< 6	NA	NA	NA
3017.1	2/12/1992	LOSL	SA	UA	US	**230**	**1702**	**184**	< 27	< 27	**107**	< 27	< 27	< 27	< 27	< 27	< 27	< 27	< 27	NA	NA	NA
3017.1	5/27/1992	LOSL	SA	UA	US	**241**	**1241**	**200**	< 32	**57**	**74**	**48**	< 32	< 32	< 32	< 32	< 32	< 32	< 32	NA	NA	NA
3017.1	11/9/1992	LOSL	SA	UA	US	**83**	**1092**	**72**	**8**	**7**	**55**	**6**	< 6	< 6	< 6	< 6	< 6	< 6	< 6	NA	NA	NA
3017.1	9/11/2013	LOSL	SA	UA	US	**5.47**	**405**	**50.4**	< 3.5	< 3.5	**24.8**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3017.1	7/30/2015	LOSL	SA	UA	US	**16.1**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3017.1	9/24/2016	ALS	SA	UA	US	**0.68**	**620**	**76**	**2.4**	**1.5**	**32**	**0.85**	**0.031**	**0.0068**	**0.0056**	< 0.021	**0.037**	< 0.021	< 0.021	NA	NA	**22.8**
3017.2	6/29/1987	CAL	SA	UA	UM	**320**	**1000**	< 20	< 7	< 2	**42**	< 3	< 0.8	< 0.5	< 0.2	< 0.2	< 20	< 20	< 2	NA	NA	NA
3017.2	7/15/1987	CAL	SA	UA	UM	**270**	**1300**	< 200	< 7	< 2	**53**	< 3	< 0.8	< 0.5	< 0.2	< 0.2	< 2	< 2	< 2	NA	NA	NA
3017.2	9/28/1989	CAL	SA	UA	UM	**200**	**840**	**120**	**5.2**	**7.9**	**35**	**6**	**1.2**	< 0.5	**0.39**	< 0.2	< 5	< 2	< 0.5	NA	NA	NA
3017.2	11/5/1991	LOSL	SA	UA	UM	**115**	**1968**	**138**	**13**	< 5	**49**	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	NA	NA	NA
3017.2	2/12/1992	LOSL	SA	UA	UM	**211**	**1677**	**126**	< 26	< 26	**63**	< 26	< 26	< 26	< 26	< 26	< 26	< 26	< 26	NA	NA	NA
3017.2	5/27/1992	LOSL	SA	UA	UM	**124**	**955**	**52**	< 32	< 32	**46**	< 32	< 32	< 32	< 32	< 32	< 32	< 32	< 32	NA	NA	NA
3017.2	8/27/1992	LOSL	SA	UA	UM	**78**	**446**	**38**	**6**	**3**	**13**	**2**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3017.2	11/10/1992	LOSL	SA	UA	UM	**68**	**851**	**63**	< 32	< 32	**28**	< 32	< 32	< 32	< 32	< 32	< 32	< 32	< 32	NA	NA	NA
3017.2	9/11/2013	LOSL	SA	UA	UM	**1.25**	**569**	**68.3**	< 3.5	< 3.5	**31.6**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3017.2	7/30/2015	LOSL	SA	UA	UM	**10.8**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3017.2	9/24/2016	ALS	SA	UA	UM	**0.27**	**610**	**77**	**2.2**	**1.5**	**32**	**0.85**	**0.027**	**0.0062**	**0.007**	< 0.019	**0.019**	< 0.019	< 0.019	NA	NA	**23.3**
3017.3	6/29/1987	CAL	SA	UA	UD	**48**	< 20	< 20	< 0.7	**0.27**	**3.6**	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 20	< 0.2	< 0.2	NA	NA	NA
3017.3	7/15/1987	CAL	SA	UA	UD	**140**	**460**	< 200	< 7	< 2	**23**	< 3	< 0.8	< 0.5	< 0.2	< 0.2	< 2	< 2	< 2	NA	NA	NA

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
3017.3	9/28/1989	CAL	SA	UA	UD	**140**	< 0.5	< 0.1	**1.5**	NA	**14**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3017.3	11/5/1991	LOSL	SA	UA	UD	**134**	**1290**	**88**	**13**	**6**	**49**	**6**	< 5	**6**	**22**	< 5	< 5	< 5	< 5	NA	NA	NA
3017.3	2/12/1992	LOSL	SA	UA	UD	**147**	**94**	**17**	< 18	< 18	< 18	< 18	< 18	< 18	< 18	< 18	< 18	< 18	< 18	NA	NA	NA
3017.3	5/27/1992	LOSL	SA	UA	UD	**59**	**13**	< 16	< 16	< 16	< 16	< 16	< 16	< 16	< 16	< 16	< 16	< 16	< 16	NA	NA	NA
3017.3	5/27/1992	CAL	FD	UA	UD	**59**	**13**	< 16	< 16	NA	< 16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3017.3	8/27/1992	LOSL	SA	UA	UD	**118**	**5**	**11**	< 3	< 3	**3**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3017.3	11/10/1992	LOSL	SA	UA	UD	**72**	**28**	**6**	< 3	< 3	**4**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3017.3	9/11/2013	LOSL	SA	UA	UD	**310**	**128**	**17.7**	< 3.5	< 3.5	**8.9**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3017.3	7/30/2015	LOSL	SA	UA	UD	**252**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3017.3	9/24/2016	ALS	SA	UA	UD	**430**	**2.2**	< 0.23	**0.084**	**0.1**	**0.65**	**0.064**	**0.014**	**0.0075**	**0.0075**	< 0.02	**0.01**	< 0.02	< 0.02	NA	NA	**0.86**
3017.3	9/24/2016	ALS	FD	UA	UD	**400**	**2**	< 0.25	**0.092**	**0.095**	**0.65**	**0.059**	**0.013**	**0.0074**	**0.012**	**0.0036**	**0.0099**	< 0.02	**0.0043**	NA	NA	**0.75**
3018.1	6/26/1987	CAL	SA	UA	UM	**230**	< 2	< 2	< 0.7	< 0.2	**0.77**	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	**1.3**	NA	NA
3018.1	6/26/1987	CHA	SA	UA	UM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**1.3**	NA	NA
3018.1	9/23/1987	CAL	SS	UA	UM	NA	**36**	< 20	< 0.7	< 0.2	**3**	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3018.1	9/23/1987	CHA	SA	UA	UM	NA	**30**	**2**	< 1	< 0.25	**2**	< 0.5	< 0.25	< 50	< 50	< 50	< 0.25	< 50	< 50	NA	NA	NA
3018.1	12/2/1987	CAL	SS	UA	UM	**240**	**37**	< 20	NA	**0.27**	**3.5**	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3018.1	12/2/1987	CAL	SA	UA	UM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**1.4**	NA	NA
3018.1	12/2/1987	CHA	SA	UA	UM	**423**	< 4	< 4	< 0.7	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	NA	NA	NA
3018.1	4/12/1988	CAL	SS	UA	UM	NA	< 20	< 2	< 20	< 0.2	**4.5**	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3018.1	12/11/1991	LOSL	SSFD	UA	UM	**130**	**158**	**13**	< 3	< 3	**10**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3018.1	12/11/1991	LOSL	SS	UA	UM	**106**	**177**	**13**	< 2	< 2	**12**	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NA	NA	NA
3018.1	12/11/1991	CAL	SA	UA	UM	**680**	**54**	< 10	< 0.7	**0.3**	**14**	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3018.1	12/11/1991	LOSL	SA	UA	UM	**106**	**177**	**13**	< 2	< 2	**12**	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NA	NA	NA
3018.1	2/3/1992	LOSL	SSFD	UA	UM	**211**	**103**	**7**	< 3	< 3	**11**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3018.1	2/3/1992	LOSL	SS	UA	UM	**190**	**132**	**10**	< 3	< 3	**14**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3018.1	2/3/1992	CAL	SA	UA	UM	**600**	**140**	< 100	< 0.7	**0.27**	**11**	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3018.1	2/3/1992	LOSL	SA	UA	UM	**190**	**132**	**10**	< 3	< 3	**14**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3018.1	5/13/1992	LOSL	SA	UA	UM	**203**	**140**	**8**	< 3	< 3	**15**	< 3	**3**	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3018.1	8/18/1992	LOSL	SSFD	UA	UM	**211**	**103**	**7**	< 3	< 3	**11**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3018.1	8/18/1992	LOSL	SS	UA	UM	**184**	**89**	**6**	< 3	< 3	**10**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3018.1	8/18/1992	CAL	SA	UA	UM	**250**	**100**	**30**	< 0.7	**0.22**	**7.4**	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3018.1	8/18/1992	LOSL	SA	UA	UM	**184**	**89**	**6**	< 3	< 3	**10**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3018.1	10/27/1992	LOSL	SA	UA	UM	**154**	**50**	**4**	< 3	< 3	**8**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3018.1	3/29/1993	CAL	SA	UA	UM	**54**	**110**	**45**	< 0.7	< 0.2	**11**	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	**0.44**	< 0.2	< 0.2	NA	NA	NA
3018.1	3/10/1994	CAL	SA	UA	UM	**12**	**6.7**	**2**	< 0.7	< 0.2	**0.58**	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3018.1	3/17/1994	CAL	SA	UA	UM	**420**	**160**	**43**	< 0.7	**2.2**	**11**	**0.45**	< 0.08	< 50	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3018.1	3/13/1995	LOSL	SA	UA	UM	**53.6**	**4.8**	< 3.5	< 3.5	< 3.5	**5.2**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3018.1	3/13/1995	QES	SA	UA	UM	**33**	< 16	< 2	< 0.7	< 0.2	**0.72**	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3018.1	4/14/1997	QES	SA	UA	UM	**20**	**59**	< 10	< 3.5	< 1	**6.4**	< 1.5	< 0.4	< 0.25	< 0.1	< 0.1	< 1	< 1	< 1	NA	NA	NA
3018.1	8/2/1999	QES	SA	UA	UM	**29**	< 5	< 10	< 0.25	< 0.5	**8.5**	< 1	< 0.4	< 0.25	< 0.1	< 0.1	< 0.5	< 1	< 0.5	NA	NA	NA

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
3018.1	7/22/2000	STL	SA	UA	UM	**9.7**	< 1	< 6	**0.2**	< 0.1	**8.3**	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
3018.1	9/1/2001	LOSL	SS	UA	UM	**9.375**	**8.8**	**7.2**	< 3.5	< 3.5	**6.9**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3018.1	9/1/2001	STL	SA	UA	UM	< 6.9	**12**	< 10	< 0.2	< 0.5	**5.9**	< 1	< 0.4	< 0.25	< 0.1	< 0.1	< 0.5	< 1	< 0.5	NA	NA	NA
3018.1	9/1/2001	STL	FD	UA	UM	< 0.5	**9.5**	**25**	**0.2**	< 0.5	**9.4**	< 1	< 0.4	< 0.25	< 0.1	< 0.1	< 0.5	< 1	< 0.5	NA	NA	NA
3018.1	6/26/2002	CAS_K	SA	UA	UM	**2**	**3**	**2.7**	**0.095**	**0.18**	**2.9**	**0.082**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
3018.1	6/26/2002	CAS_K	SA	UA	UM	**3.3**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3018.1	7/1/2003	LOSL	SS	UA	UM	**0.85**	**15.1**	**9.7**	< 3.5	< 3.5	**8.5**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3018.1	7/1/2003	CAS-Kelso	SA	UA	UM	**5.8**	**13**	**6.5**	**0.14**	**0.37**	**6.2**	**0.13**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
3018.1	7/6/2004	CAS-Kelso	SA	UA	UM	**2.4**	**12**	**5.8**	**0.14**	**0.38**	**4.5**	**0.17**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
3018.1	8/1/2005	CAS-Kelso	SA	UA	UM	**3.2**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3018.1	11/10/2006	LOSL	SS	UA	UM	**14.9**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3018.1	11/10/2006	CAS-Kelso	SA	UA	UM	**2.2**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3018.1	9/19/2007	LOSL	SA	UA	UM	**0.967**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3018.1	4/28/2008	CAS-Kelso	SA	UA	UM	**1.9**	**14**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3018.1	4/28/2008	CAS-Kelso	SA	UA	UM	**1.7**	**7.1**	**9.8**	**0.31**	< 0.2	**8.3**	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	**1**	**0.65**	**0.74**
3018.1	4/28/2008	CAS-Kelso	FD	UA	UM	**2**	**8.2**	**12**	**0.39**	< 0.2	**9.8**	< 0.22	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	**0.96**	**0.66**	**0.79**
3018.1	4/28/2008	CAS-Kelso	FD	UA	UM	**1.9**	**12**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3018.1	9/19/2008	LOSL	SA	UA	UM	**9.6**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3018.1	9/11/2009	LOSL	SA	UA	UM	**8.6**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3018.1	10/21/2009	CAS	SA	UA	UM	**0.77**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3018.1	10/21/2009	CAS	FD	UA	UM	**0.91**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3018.1	11/10/2009	CAS	SA	UA	UM	**0.77**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3018.1	11/10/2009	CAS	FD	UA	UM	**0.78**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3018.1	9/3/2010	CAS	SA	UA	UM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.6**
3018.1	9/3/2010	LOSL	SA	UA	UM	**0.7**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3018.1	9/10/2011	LOSL	SA	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3018.1	9/10/2012	CAS	SA	UA	UM	NA	**3.9**	**4.6**	**0.088**	**0.14**	**2.5**	**0.049**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
3018.1	9/10/2012	LOSL	SA	UA	UM	**0.52**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3018.1	9/10/2012	CAS	FD	UA	UM	NA	**3.7**	**4.4**	**0.085**	**0.13**	**2.4**	**0.047**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
3018.1	9/10/2012	LOSL	FD	UA	UM	**0.49**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3018.1	9/9/2013	ALS	SA	UA	UM	NA	**4.4**	**4.8**	**0.069**	**0.12**	**3.4**	**0.047**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
3018.1	9/9/2013	LOSL	SA	UA	UM	< 0.5	**6.7**	**5.9**	< 3.5	< 3.5	**6.2**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3018.1	9/9/2013	ALS	FD	UA	UM	NA	**4.9**	**5.5**	**0.085**	**0.15**	**3.9**	**0.067**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
3018.1	9/9/2013	LOSL	FD	UA	UM	< 0.5	**6.6**	**6.1**	< 3.5	< 3.5	**4.7**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3018.1	9/5/2014	ALS	SA	UA	UM	NA	**3.5**	**2.8**	**0.076**	**0.054**	**1.9**	**0.02**	**0.0034**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.4**
3018.1	9/5/2014	LOSL	SA	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3018.1	9/5/2014	ALS	FD	UA	UM	NA	**3.9**	**3.1**	**0.075**	**0.063**	**2.1**	**0.025**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.5**
3018.1	9/5/2014	LOSL	FD	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3018.1	7/31/2015	ALS	SA	UA	UM	**0.59**	**5.8**	**3**	**0.087**	**0.094**	**2.1**	**0.032**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	NA	NA	**0.34**
3018.1	7/31/2015	LOSL	SA	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
3018.1	7/31/2015	ALS	FD	UA	UM	NA	**5.7**	**2.9**	**0.076**	**0.088**	**2**	**0.03**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.36**
3018.1	7/31/2015	LOSL	FD	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3018.1	8/28/2016	ALS	SA	UA	UM	**0.78**	**3.1**	**1.6**	< 0.02	**0.036**	**1.2**	**0.014**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	< 0.5
3018.2	6/28/1987	CAL	SA	LA	LD	**2300**	< 20	< 20	< 0.7	**1.2**	**10**	**1.3**	< 0.16	**0.06**	**0.05**	**0.03**	< 2	< 0.2	< 0.2	**7.6**	NA	NA
3018.2	12/6/1987	CAL	SA	LA	LD	**1510**	**42**	**52**	< 3	**0.68**	**43**	**1.1**	< 0.08	< 0.05	**0.02**	< 0.02	< 0.2	< 0.2	< 0.2	**10**	NA	NA
3018.2	12/11/1991	LOSL	SA	LA	LD	**849**	**10**	**24**	< 3	< 3	**15**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3018.2	2/3/1992	LOSL	SA	LA	LD	**1480**	**41**	**48**	< 3	**3**	**39**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3018.2	5/13/1992	LOSL	SA	LA	LD	**894**	**19**	**29**	< 3	< 3	**27**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3018.2	8/18/1992	LOSL	SA	LA	LD	**727**	**33**	**33**	< 31	< 31	< 31	< 31	< 31	< 31	< 31	< 31	< 31	< 31	< 31	NA	NA	NA
3018.2	10/27/1992	LOSL	SA	LA	LD	**662**	< 31	**31**	< 31	< 31	< 31	< 31	< 31	< 31	< 31	< 31	< 31	< 31	< 31	NA	NA	NA
3018.2	3/9/1994	LOSL	SA	LA	LD	**318.4**	< 34	< 34	< 34	< 34	< 34	< 34	< 34	< 34	< 34	< 34	< 34	< 34	< 34	NA	NA	NA
3018.2	3/10/1995	LOSL	UNK	LA	LD	**544.7**	< 3.4	**4.9**	< 3.4	< 3.4	**3.2**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3018.2	3/10/1995	LOSL	SA	LA	LD	**873**	< 3.4	**9.1**	< 3.4	< 3.4	**5.7**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3018.2	3/18/1996	LOSL	SA	LA	LD	**1058**	**27.8**	**58.9**	**43.1**	< 3.5	**40.6**	**-999**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3018.2	3/18/1996	QES	SA	LA	LD	NA	< 10	**240**	< 0.7	**3.1**	**38**	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3018.2	3/18/1996	LOSL	FD	LA	LD	**691**	**20.7**	**41.2**	**15.5**	< 3.4	**31.5**	**-999**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3018.2	4/17/1997	LOSL	SA	LA	LD	**747.6**	**12**	**20.8**	< 3.5	< 3.5	**14.7**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3018.2	8/3/1998	LOSL	SA	LA	LD	**1530.3**	**42**	**96**	**76**	**5**	**64**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3018.2	4/29/1999	LOSL	SA	LA	LD	**1127.6**	**502.5**	**96.6**	< 3.4	**5.7**	**86**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3018.2	8/3/1999	LOSL	SA	LA	LD	**340.4**	**23.4**	**54.6**	< 3.4	< 3.4	**36.3**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3018.2	7/22/2000	STL	SA	LA	LD	**8.6**	< 1	< 2	< 0.04	**1**	**13**	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
3018.2	9/4/2001	STL	SA	LA	LD	**340**	< 20	**95**	< 0.8	**2.7**	**30**	< 4	< 1.6	< 1	< 0.4	< 0.4	< 2	< 4	< 2	NA	NA	NA
3018.2	6/26/2002	CAS_K	SA	LA	LD	**68**	**5.3**	**9.8**	**0.14**	**0.61**	**4.1**	**0.53**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	NA	NA	NA
3018.2	7/1/2003	CAS-Kelso	SA	LA	LD	**34**	**0.12**	**3.8**	< 0.02	**0.25**	< 0.02	**0.47**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
3018.2	7/6/2004	CAS-Kelso	SA	LA	LD	**49**	**0.18**	**16**	**0.2**	**1.6**	**0.55**	**1.2**	**0.04**	< 0.02	< 0.02	< 0.02	**0.049**	< 0.02	< 0.02	NA	NA	NA
3018.2	7/18/2005	CAS-Kelso	SS	LA	LD	**110**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3018.2	7/18/2005	LOSL	SA	LA	LD	**83.6**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3018.2	7/18/2005	LOSL	FD	LA	LD	**54.9**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3018.2	11/8/2006	CAS-Kelso	SS	LA	LD	**18**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3018.2	11/8/2006	LOSL	SS	LA	LD	**55.9**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3018.2	11/8/2006	LOSL	FD	LA	LD	**63.3**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3018.2	9/25/2007	CAS-Kelso	SS	LA	LD	**16**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3018.2	9/25/2007	LOSL	SA	LA	LD	**30.2**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3018.2	9/25/2007	LOSL	FD	LA	LD	**22.1**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3018.2	9/19/2008	LOSL	SA	LA	LD	**20.5**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3018.2	9/19/2008	LOSL	FD	LA	LD	**20.2**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3018.2	9/11/2009	LOSL	SA	LA	LD	**9.1**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3018.2	9/11/2009	LOSL	FD	LA	LD	**9.4**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3018.2	9/3/2010	CAS	SA	LA	LD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**2.2**
3018.2	9/3/2010	LOSL	SA	LA	LD	**16.6**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
3018.2	9/10/2011	LOSL	SA	LA	LD	**4.95**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3018.2	9/10/2012	CAS	SA	LA	LD	NA	**3.4**	**59**	**0.43**	**1.7**	**7.9**	**0.68**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	**1.6**	NA	**2**
3018.2	9/10/2012	LOSL	SA	LA	LD	**19.1**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3018.2	9/9/2013	ALS	SA	LA	LD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**1.9**
3018.2	9/9/2013	LOSL	SA	LA	LD	**3.24**	**6.2**	**84.4**	< 3.5	< 3.9	**10.5**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3018.2	9/5/2014	ALS	SA	LA	LD	NA	**2.3**	**64**	**0.81**	**2.5**	**3.7**	**1.1**	**0.0057**	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	NA	NA	**2.5**
3018.2	9/5/2014	LOSL	SA	LA	LD	**19.1**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3018.2	7/31/2015	ALS	SA	LA	LD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**2.72**
3018.2	7/31/2015	LOSL	SA	LA	LD	**16.6**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3018.2	8/28/2016	ALS	SA	LA	LD	**2.5**	< 0.79	**43**	**0.6**	**2**	**1.6**	**0.85**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**2.53**
3018.2	8/28/2016	ALS	FD	LA	LD	**2.5**	< 0.84	**47**	**0.63**	**2.2**	**1.6**	**0.88**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**2.5**
3018.2	8/28/2016	LOSL	SA	LA	LD	**3.5**	< 3.5	< 44.1	< 4.7	< 4.3	< 4.1	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3018.2	8/28/2016	LOSL	FD	LA	LD	**3.5**	< 3.5	< 38.3	< 3.5	< 3.9	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3018.3	12/17/1991	LOSL	SA	LA/TILL	LD	**27**	**769**	**79**	< 5	**6**	**25**	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	NA	NA	NA
3018.3	2/3/1992	LOSL	SA	LA/TILL	LD	**16**	**171**	**26**	< 6	< 6	**15**	< 6	< 6	< 6	< 6	< 6	< 6	< 6	< 6	NA	NA	NA
3018.3	5/19/1992	LOSL	SA	LA/TILL	LD	**13**	**68**	**12**	< 3	< 3	**8**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3018.3	8/25/1992	LOSL	SA	LA/TILL	LD	**8**	**42**	**11**	< 6	< 6	**7**	< 6	< 6	< 6	< 6	< 6	< 6	< 6	< 6	NA	NA	NA
3018.3	10/28/1992	LOSL	SA	LA/TILL	LD	< 3	**8**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3018.3	3/17/1994	CAL	SA	LA/TILL	LD	**420**	**160**	**43**	< 0.7	**2.2**	**11**	**0.45**	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3018.3	3/17/1994	LOSL	SA	LA/TILL	LD	**430**	**104**	**25**	**23.8**	< 7	**20.6**	< 7	< 7	< 7	< 7	< 7	< 7	< 7	< 7	NA	NA	NA
3021.1	6/26/1987	CAL	SA	UA	US	NA	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	< 0.5	NA	NA
3021.1	6/26/1987	CHA	SA	UA	US	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1	NA	NA
3021.1	12/2/1987	CAL	SS	UA	US	NA	< 4	< 4	< 1.4	< 0.4	< 0.4	< 0.6	< 0.16	< 0.1	< 0.04	< 0.04	< 0.4	< 0.4	< 0.4	NA	NA	NA
3021.1	12/2/1987	CAL	SA	UA	US	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5	NA	NA
3021.1	12/2/1987	CHA	SA	UA	US	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA
3021.1	6/15/1992	CAL	SA	UA	US	**2.2**	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	< 5	NA	NA
3021.1	3/29/1993	CAL	SA	UA	US	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3021.1	3/8/1994	CAL	SA	UA	US	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.5	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3021.1	3/7/1995	QES	SA	UA	US	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	**0.3**	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3021.1	3/12/1996	QES	SA	UA	US	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.095	< 0.095	< 0.038	< 0.038	< 0.2	< 0.38	< 0.2	NA	NA	NA
3021.1	4/15/1997	QES	SA	UA	US	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3021.1	8/4/1998	QES	SA	UA	US	**18**	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
3021.1	8/2/1999	QES	SA	UA	US	**20**	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA

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LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
3021.1	7/18/2000	STL	SA	UA	US	< 0.5	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
3021.1	8/24/2001	STL	SA	UA	US	< 0.5	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
3021.1	6/24/2002	CAS_K	SA	UA	US	< 0.5	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	NA	NA	NA
3021.1	6/24/2002	CAS_K	SA	UA	US	< 0.53	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3021.1	6/19/2003	CAS-Kelso	SA	UA	US	< 0.5	< 0.023	< 0.023	< 0.023	< 0.023	< 0.023	< 0.023	< 0.023	< 0.023	< 0.023	< 0.023	< 0.023	< 0.023	< 0.023	NA	NA	NA
3021.1	6/30/2004	CAS-Kelso	SA	UA	US	< 0.5	**0.11**	< 0.02	**0.039**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
3021.1	8/1/2005	CAS-Kelso	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3021.1	10/24/2006	CAS-Kelso	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3021.1	9/15/2007	CAS-Kelso	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3021.1	4/19/2008	CAS-Kelso	SA	UA	US	< 0.5	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3021.1	4/19/2008	CAS-Kelso	SA	UA	US	< 1	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.5	**0.26**	**0.31**
3021.1	9/24/2008	CAS-Kelso	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3021.1	9/24/2009	CAS	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3021.1	9/6/2010	CAS	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5
3021.1	9/14/2012	CAS	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5
3021.1	9/21/2013	ALS	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.5**
3021.1	9/22/2014	ALS	SA	UA	US	< 0.5	< 0.02	< 0.02	**0.021**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.2**
3021.1	7/24/2015	ALS	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.33**
3021.1	9/3/2016	ALS	SA	UA	US	< 0.5	< 0.02	< 0.02	< 0.036	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.37**
3023.1	12/13/1991	LOSL	SA			**1031**	**213**	**54**	< 3	< 3	**18**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3023.1	2/5/1992	LOSL	SA			**1209**	**106**	**45**	< 2	**2**	**24**	**2**	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NA	NA	NA
3023.1	8/24/1992	LOSL	SA			**1524**	**2292**	**145**	< 31	**45**	**89**	**42**	< 31	< 31	< 31	< 31	< 31	< 31	< 31	NA	NA	NA
3023.1	10/23/1992	LOSL	SA			**1113**	**3594**	**422**	**178**	**324**	**457**	**291**	**64**	< 30	< 30	< 30	**74**	< 30	< 30	NA	NA	NA
3023.1	3/17/1994	LOSL	SS			**3020**	**12200**	**2120**	**685**	**881**	**988**	**779**	**150**	< 34	< 34	< 34	**145**	< 34	< 34	NA	NA	NA
3023.1	3/17/1994	CAL	SA			**2500**	**7100**	**1400**	**290**	**680**	**590**	**270**	**200**	**38**	**32**	< 20	**130**	< 20	< 5	NA	NA	NA
3023.1	3/17/1994	LOSL	SA			**3020**	**12200**	**2120**	**685**	**881**	**988**	**779**	**150**	< 34	< 34	< 34	**145**	< 34	< 34	NA	NA	NA
3025.1	6/3/1987	CAL	SA	UA	US	NA	**500**	< 2000	**100**	**190**	**510**	**130**	**9**	**8.8**	**8.1**	**5.4**	< 200	< 20	< 20	NA	NA	NA
3025.1	6/17/1987	CAL	SA	UA	US	NA	**550**	< 200	< 70	**80**	**240**	**100**	< 16	< 5	**3.7**	**2.6**	< 200	< 20	< 20	NA	NA	NA
3025.1	6/29/1987	CAL	UNK	UA	US	**67**	**320**	< 200	< 70	**25**	**97**	< 30	< 8	< 5	< 2	< 2	< 20	< 20	< 20	NA	NA	NA
3025.1	6/29/1987	CAL	SA	UA	US	**70**	**540**	< 2000	< 70	**63**	**170**	**41**	< 8	< 5	< 4	< 2	< 20	< 20	< 20	NA	NA	NA
3025.1	7/15/1987	CAL	SA	UA	US	**77**	**680**	< 200	**15**	**21**	**100**	**15**	**3.6**	**1**	**1**	**0.63**	< 20	< 2	< 2	NA	NA	NA
3025.1	7/28/1987	CAL	SA	UA	US	**71**	**320**	< 200	**6.4**	**6.1**	**59**	**4.5**	**0.18**	< 0.2	**0.11**	**0.069**	< 20	< 0.2	< 0.2	NA	NA	NA
3025.1	8/10/1987	CAL	UNK	UA	US	NA	**710**	< 200	**3.7**	**2.4**	**59**	**1.7**	< 0.8	< 0.5	< 0.2	< 0.2	< 2	< 2	< 2	NA	NA	NA
3025.1	8/10/1987	CAL	SA	UA	US	NA	**700**	< 200	**7.8**	**11**	**79**	**9**	**1.7**	**0.6**	**0.54**	**0.34**	< 20	< 2	< 2	NA	NA	NA
3025.1	8/25/1987	CAL	SS	UA	US	NA	**680**	< 200	**34**	**5.6**	< 20	**6**	**4.7**	< 0.5	< 0.2	< 0.2	< 20	< 2	< 2	NA	NA	NA
3025.1	9/9/1987	CAL	SS	UA	US	**110**	< 200	< 200	< 7	**4.7**	**49**	**3.5**	< 1.2	< 0.5	< 0.2	< 0.2	< 2	< 2	< 2	NA	NA	NA
3025.1	9/22/1987	CAL	SS	UA	US	NA	**210**	< 200	**14**	**21**	**120**	**17**	**5.4**	**1.4**	**1.5**	**1**	< 20	< 2	< 2	NA	NA	NA
3025.1	10/6/1987	CAL	SS	UA	US	**110**	**900**	< 200	**9.1**	**12**	**140**	**9.9**	**2.2**	< 0.5	**0.58**	**0.4**	< 20	< 2	< 2	NA	NA	NA
3025.1	10/20/1987	CAL	SS	UA	US	NA	**900**	< 200	**14**	**24**	**150**	**17**	**2.8**	**1.5**	**1.5**	**1.1**	< 20	< 2	**2.5**	NA	NA	NA
3025.1	11/5/1987	CAL	SS	UA	US	**110**	**1300**	< 2000	**120**	**270**	**740**	**230**	**54**	**16**	**17**	**12**	< 200	< 20	< 20	NA	NA	NA

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
3025.1	12/10/1987	CAL	SS	UA	US	**69**	**790**	< 200	**4.4**	**3.1**	**75**	< 3	< 0.8	< 0.5	< 0.2	< 0.2	< 2	< 2	< 2	NA	NA	NA
3025.1	4/12/1988	CAL	SS	UA	US	**40**	**200**	< 200	**3.5**	**2.8**	**76**	< 3	< 0.8	< 0.5	< 0.2	< 0.2	< 2	< 2	< 2	NA	NA	NA
3025.1	4/18/1988	CAL	SS	UA	US	NA	**290**	< 200	**3.1**	**2.2**	**47**	**1.3**	**0.21**	< 0.05	**0.048**	**0.032**	< 0.2	< 0.2	< 0.2	NA	NA	NA
3025.1	6/24/1988	CAL	SS	UA	US	**57**	**500**	< 200	**7.6**	**7.6**	**93**	**6**	**1.6**	**0.2**	< 0.2	**0.14**	**1.2**	< 0.2	< 0.2	NA	NA	NA
3025.1	7/22/1988	CAL	SS	UA	US	**61**	**530**	< 200	**9.7**	**15**	**82**	**12**	**2.9**	**0.65**	**0.53**	**0.39**	< 20	< 2	< 2	NA	NA	NA
3025.1	8/17/1988	ENS	SS	UA	US	**61**	**670**	< 400	< 14	**13**	**82**	**8.9**	**2.2**	< 1	**0.47**	**0.4**	**3.5**	< 4	< 4	NA	NA	NA
3025.1	9/29/1989	CAL	SA	UA	US	**150**	**790**	< 1000	**7.6**	**6.2**	< 100	**4.6**	**0.65**	< 0.5	< 0.2	< 0.2	< 5	< 2	< 0.5	NA	NA	NA
3025.1	3/19/1990	CAL	SA	UA	US	NA	NA	NA	NA	**19**	NA	**14**	**2.1**	**0.94**	**0.87**	**0.5**	< 5	< 2	< 0.5	NA	NA	NA
3025.1	4/23/1990	CAL	SSFD	UA	US	**170**	< 50	< 100	**11**	**14**	**69**	< 10	< 0.5	< 0.5	< 0.2	< 0.2	< 5	< 2	< 0.5	NA	NA	NA
3025.1	4/23/1990	CAL	SS	UA	US	**170**	< 50	< 100	**11**	**19**	**69**	**14**	**2.1**	**0.94**	**0.87**	**0.5**	< 5	< 2	< 0.5	NA	NA	NA
3025.1	4/23/1990	CAL	SA	UA	US	**170**	< 50	< 100	**11**	**19**	**69**	**14**	**2.1**	**0.94**	**0.87**	**0.5**	< 5	< 2	< 0.5	NA	NA	NA
3025.1	9/24/1990	CAL	SA	UA	US	**260**	**500**	< 1000	**21**	**36**	**100**	< 100	< 5	< 50	< 20	< 20	**8.5**	< 20	< 5	NA	NA	NA
3025.1	10/12/1990	CAL	SS	UA	US	**310**	**50**	**170**	**7.6**	**34**	**37**	**28**	< 8	< 5	**2.8**	< 2	< 0.2	< 20	< 20	NA	NA	NA
3025.1	10/22/1990	CAL	SA	UA	US	**310**	**50**	**170**	**7.6**	**14**	**37**	< 10	< 0.5	< 0.5	< 0.2	< 0.2	< 5	< 2	< 0.5	NA	NA	NA
3025.1	11/13/1991	LOSL	SA	UA	US	**123**	**379**	**131**	**24**	**31**	**58**	**27**	< 9	< 9	< 9	< 9	< 9	< 9	< 9	NA	NA	NA
3025.1	2/19/1992	LOSL	SA	UA	US	**188**	**48**	**130**	< 25	**50**	**118**	**48**	< 25	< 25	< 25	< 25	< 25	< 25	< 25	NA	NA	NA
3025.1	6/4/1992	LOSL	SA	UA	US	**262**	< 30	**198**	**36**	**88**	**67**	**76**	< 30	< 30	< 30	< 30	< 30	< 30	< 30	NA	NA	NA
3025.1	9/1/1992	LOSL	SA	UA	US	**138**	**39**	**85**	**50**	**55**	**90**	**55**	**35**	**30**	**35**	< 15	**35**	< 15	< 15	NA	NA	NA
3025.1	11/12/1992	LOSL	SA	UA	US	**52**	< 6	**17**	**7**	**25**	**47**	**19**	< 6	< 6	< 6	< 6	< 6	< 6	< 6	NA	NA	NA
3025.1	6/10/2016	ALS	SA	UA	US	**16**	**150**	**50**	**4.6**	**4.9**	**30**	**3.7**	**0.6**	**0.19**	**0.3**	**0.11**	**0.69**	**0.017**	**0.071**	NA	NA	**5.27**
3025.1	6/10/2016	LOSL	SA	UA	US	**44.6**	**104**	**92.9**	**14.8**	**20.8**	**55.7**	**17.2**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3026.1	6/3/1987	CAL	SA	UA	US	NA	**2200**	< 200	< 7	**3.2**	**43**	< 3	< 0.8	< 0.5	< 0.2	< 0.2	< 20	< 2	< 2	NA	NA	NA
3026.1	6/17/1987	CAL	UNK	UA	US	NA	**5100**	< 200	**8.8**	**4.7**	**99**	**4**	< 0.8	< 0.5	< 0.2	< 0.2	< 2	< 2	< 2	NA	NA	NA
3026.1	6/17/1987	CAL	SA	UA	US	NA	**2100**	< 200	**7**	**5.5**	**71**	**5**	< 0.8	< 0.5	**0.23**	< 0.2	< 2	< 2	< 2	NA	NA	NA
3026.1	6/29/1987	CAL	SA	UA	US	**1200**	**2500**	< 200	**7.3**	**4.4**	**78**	**3.2**	< 0.8	< 0.5	< 0.2	< 0.2	< 20	< 2	< 2	NA	NA	NA
3026.1	7/15/1987	CAL	UNK	UA	US	**1700**	**4500**	< 200	**9.1**	**6.8**	**92**	**4.1**	< 0.8	< 0.5	< 0.2	< 0.2	< 20	< 2	< 2	NA	NA	NA
3026.1	7/15/1987	CAL	SA	UA	US	**1300**	**2700**	< 200	**12**	**22**	**99**	**26**	**4.2**	**2**	**1.5**	**0.85**	< 20	< 2	< 2	NA	NA	NA
3026.1	7/28/1987	CAL	SA	UA	US	**600**	**1400**	< 200	**7**	**8.9**	**57**	**7.2**	**0.96**	**0.67**	**0.62**	**0.34**	< 20	< 2	< 2	NA	NA	NA
3026.1	8/10/1987	CAL	SA	UA	US	NA	**740**	< 200	**5.4**	**6.9**	**64**	**5**	**0.85**	< 0.5	**0.28**	< 0.2	< 20	< 2	< 2	NA	NA	NA
3026.1	8/25/1987	CAL	UNK	UA	US	NA	**130**	< 200	**12**	**9.8**	**91**	**7.2**	**1.4**	< 0.5	**0.5**	**0.31**	**1.5**	< 2	< 2	NA	NA	NA
3026.1	8/25/1987	CAL	SSFD	UA	US	NA	**460**	< 200	**5.8**	**25**	**75**	**21**	< 8	< 5	< 2	< 2	< 20	< 20	< 20	NA	NA	NA
3026.1	8/25/1987	CAL	SS	UA	US	NA	< 200	< 200	**15**	**8.7**	**110**	**8.9**	**1.5**	**0.68**	**0.59**	**0.35**	< 20	< 2	< 2	NA	NA	NA
3026.1	9/9/1987	CAL	SS	UA	US	**480**	**570**	< 200	**6**	**4.6**	**72**	< 3	< 0.8	< 0.5	< 0.2	< 0.2	< 2	< 2	< 2	NA	NA	NA
3026.1	9/22/1987	CAL	SS	UA	US	NA	< 200	< 200	**3.8**	**8.6**	**70**	**6.7**	< 1.1	**0.51**	**0.48**	**0.32**	< 20	< 2	< 2	NA	NA	NA
3026.1	10/6/1987	CAL	SS	UA	US	**370**	**1700**	< 200	< 70	**29**	**100**	< 30	< 0.8	< 5	**2.5**	< 2	< 20	< 2	< 20	NA	NA	NA
3026.1	10/20/1987	CAL	SS	UA	US	NA	**1100**	< 200	**6.1**	**8.6**	**68**	**6.7**	< 1.1	**0.51**	**0.48**	**0.32**	< 20	< 2	< 2	NA	NA	NA
3026.1	11/5/1987	CAL	SSFD	UA	US	**260**	**910**	< 200	**7.2**	**12**	**76**	**11**	< 2	**0.9**	**0.92**	**0.59**	< 20	< 2	< 2	NA	NA	NA
3026.1	11/5/1987	CAL	SS	UA	US	**280**	**1100**	< 200	**11**	**21**	**78**	**19**	**4**	**1.8**	**1.9**	**1.2**	< 20	< 2	< 2	NA	NA	NA
3026.1	12/10/1987	CAL	SS	UA	US	**14**	< 20	< 20	< 0.7	**0.43**	< 2	**0.88**	**0.11**	**0.052**	**0.056**	**0.033**	< 2	< 0.2	< 0.2	NA	NA	NA
3026.1	1/26/1988	CAL	SS	UA	US	**2.1**	< 20	< 20	< 7	**1.6**	< 2	< 3	< 0.8	**0.42**	**0.35**	**0.2**	< 20	< 20	< 0.2	NA	NA	NA

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
3026.1	4/12/1988	CAL	SS	UA	US	**1.1**	< 20	< 20	< 0.7	< 0.2	< 2	< 0.3	< 0.08	**0.087**	**0.059**	**0.031**	< 2	< 0.2	< 0.2	NA	NA	NA
3026.1	4/18/1988	CAL	SS	UA	US	NA	< 20	< 20	< 0.7	< 0.2	< 2	< 0.3	< 0.08	< 0.05	**0.077**	**0.026**	< 0.2	< 0.2	< 0.2	NA	NA	NA
3026.1	6/24/1988	CAL	SS	UA	US	**0.66**	< 20	< 20	< 0.7	< 0.2	< 2	< 0.3	< 0.08	< 0.05	**0.037**	**0.021**	< 0.2	< 0.2	< 0.2	NA	NA	NA
3026.1	7/22/1988	CAL	SS	UA	US	**3.1**	< 20	< 20	< 0.7	**0.22**	< 2	**1**	< 0.08	< 0.05	**0.022**	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3026.1	8/17/1988	ENS	SS	UA	US	**1.2**	< 4	< 4	< 1.4	< 0.4	< 0.5	< 0.6	< 0.16	< 0.1	< 0.04	< 0.04	< 0.4	< 0.4	< 0.4	NA	NA	NA
3026.1	9/28/1989	CAL	SA	UA	US	**180**	**1900**	< 1000	**10**	**16**	< 100	**13**	**2.9**	**1.2**	**1.1**	**0.52**	**5.2**	< 2	< 0.5	NA	NA	NA
3026.1	3/19/1990	CAL	SA	UA	US	**240**	**3100**	< 1000	**4.7**	**2.2**	**75**	**1.1**	< 0.5	< 0.5	< 0.2	< 0.2	< 0.5	< 2	< 0.5	NA	NA	NA
3026.1	11/15/1991	LOSL	SS	UA	US	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	NA	NA	NA
3026.1	11/15/1991	CAL	SA	UA	US	**0.56**	< 5	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3026.1	11/15/1991	LOSL	SA	UA	US	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	NA	NA	NA
3026.1	2/14/1992	LOSL	SA	UA	US	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3026.1	6/3/1992	LOSL	SA	UA	US	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3026.1	8/28/1992	LOSL	SA	UA	US	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3026.1	11/11/1992	CAL	SA	UA	US	**4**	< 5	< 10	< 0.7	< 0.2	< 1	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3026.1	3/7/1994	LOSL	SA	UA	US	**48.6**	**1371.2**	**101.3**	**8.6**	< 3.4	**40.9**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3026.1	6/8/2016	ALS	SA	UA	US	**48**	**2800**	**160**	**9.5**	**6.7**	**78**	**4.1**	**0.63**	**0.23**	**0.31**	< 0.97	**0.46**	< 0.97	**0.14**	NA	NA	**42.2**
3026.1	6/8/2016	LOSL	SA	UA	US	**81.2**	**2805**	**136**	**13.7**	**7.6**	**65.1**	**5.5**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3027.1	5/31/1989	CAL	SA	UA	US	**3**	< 2	< 2	< 0.7	**1.7**	< 0.02	**1.3**	**0.11**	**0.051**	**0.074**	**0.032**	< 0.2	< 0.2	< 0.2	NA	NA	NA
3027.1	6/23/1989	CAL	SS	UA	US	**2.3**	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	**0.059**	**0.028**	< 0.2	< 0.2	< 0.2	NA	NA	NA
3027.1	6/23/1989	LOSL	SA	UA	US	NA	**19**	< 15	< 15	**8**	< 15	< 15	< 15	< 15	< 15	**11**	< 15	< 15	< 15	NA	NA	NA
3027.1	9/27/1989	CAL	SA	UA	US	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	**0.075**	**0.093**	**0.041**	**0.23**	< 0.2	< 0.2	NA	NA	NA
3027.1	1/24/1990	CAL	SA	UA	US	**0.58**	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	**0.029**	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3027.1	3/18/1991	CAL	SA	UA	US	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.2	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3027.1	9/16/1991	CAL	SA	UA	US	**14**	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.5	< 0.5	< 0.2	< 0.2	< 0.5	< 2	< 0.5	NA	NA	NA
3027.1	3/23/1992	CAL	SA	UA	US	**13**	< 5	< 5	< 0.7	< 0.5	< 1	< 1	< 0.5	< 5	< 0.2	< 2	< 0.5	< 2	< 0.5	NA	NA	NA
3027.1	9/24/1992	CAL	SA	UA	US	**9.2**	< 5	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.5	< 0.5	< 0.2	< 0.2	< 0.5	< 2	< 0.5	NA	NA	NA
3027.1	3/9/1993	CAL	SA	UA	US	**5**	< 5.3	< 11	< 0.74	< 0.53	< 1.1	< 1.1	< 0.53	< 5.3	< 2.1	< 2.1	< 5.3	< 21	< 5.3	NA	NA	NA
3027.1	9/2/1993	CAL	SA	UA	US	**3.6**	< 5	< 10	< 7	< 0.5	< 1	< 1	< 0.5	< 50	< 20	< 20	< 5	< 200	< 50	NA	NA	NA
3027.1	3/21/1994	CAL	SA	UA	US	**1.6**	< 5	< 10	< 0.7	< 0.5	< 1	< 1	< 0.5	< 0.5	**0.36**	**0.22**	< 0.5	< 2	< 0.5	NA	NA	NA
3027.1	8/16/1994	QES	SA	UA	US	**4.5**	< 5	< 10	< 0.7	< 0.5	< 1	< 1	< 0.5	< 0.5	< 0.2	< 0.2	< 0.5	< 1.6	< 0.5	NA	NA	NA
3027.1	3/16/1995	QES	SA	UA	US	**0.57**	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	**0.036**	**0.021**	< 0.2	< 0.2	< 0.2	NA	NA	NA
3027.1	8/15/1995	QES	SA	UA	US	**11**	< 4.7	< 9.5	< 0.7	**0.63**	< 0.95	< 0.95	< 0.47	< 0.47	**0.81**	**0.38**	**1.3**	< 1.9	< 0.47	NA	NA	NA
3027.1	3/25/1996	QES	SA	UA	US	**0.59**	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3028.1	5/31/1989	CAL	SA	UA	US	< 0.5	< 2	< 20	< 0.7	**2**	< 0.2	**1.7**	**0.16**	< 0.05	**0.062**	**0.027**	< 2	< 0.2	< 0.2	NA	NA	NA
3028.1	6/23/1989	CAL	SS	UA	US	NA	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3028.1	6/23/1989	LOSL	SA	UA	US	NA	< 3	< 3	< 3	**11**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3028.1	9/27/1989	CAL	SA	UA	US	< 0.5	< 2	< 10	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3028.1	11/9/1989	CAL	SA	UA	US	< 0.5	< 20	< 20	< 0.7	**1.2**	< 2	**0.92**	< 0.08	**0.052**	**0.045**	**0.024**	< 2	< 0.2	< 0.2	NA	NA	NA
3028.1	10/1/1990	CAL	SA	UA	US	**1.1**	< 5	< 10	< 0.7	< 0.5	< 1	< 1	< 0.5	< 0.5	< 0.2	< 0.2	< 0.5	< 2	< 0.5	NA	NA	NA
3028.1	3/18/1991	CAL	UNK	UA	US	**1.4**	< 5	< 2	< 0.7	**0.36**	< 0.2	< 1	< 0.5	< 0.05	**0.028**	< 0.02	< 0.5	< 0.2	< 0.2	NA	NA	NA

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
3028.1	3/18/1991	CAL	SA	UA	US	**1.7**	< 5	< 2	< 0.7	< 0.5	**0.21**	< 1	< 0.5	< 0.05	**0.034**	< 0.02	< 0.5	< 0.2	< 0.2	NA	NA	NA
3028.1	9/16/1991	CAL	SA	UA	US	**3.2**	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3028.1	3/23/1992	CAL	SA	UA	US	**6.3**	< 5	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3028.1	9/24/1992	CAL	SA	UA	US	**4.9**	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3028.1	3/10/1993	CAL	SA	UA	US	**1.4**	< 2.2	< 2.2	< 0.76	< 0.22	< 0.62	< 0.32	< 0.086	< 0.054	< 0.022	< 0.022	< 0.22	< 0.22	< 0.22	NA	NA	NA
3028.1	9/2/1993	CAL	SA	UA	US	**2.2**	< 5	< 10	< 7	< 2	< 2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3028.1	9/3/1993	CAL	SA	UA	US	**3.3**	< 5	< 10	< 7	< 2	< 2	< 3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3028.1	3/21/1994	CAL	SA	UA	US	**1.3**	< 5	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3028.1	8/16/1994	QES	SA	UA	US	**57**	< 5	< 10	< 0.7	< 0.5	< 1	< 1	< 0.5	< 0.5	< 0.2	< 0.2	< 0.5	< 1.6	< 0.5	NA	NA	NA
3028.1	3/16/1995	QES	SA	UA	US	**1.5**	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3028.1	8/15/1995	QES	SA	UA	US	**0.89**	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3028.1	3/25/1996	QES	SA	UA	US	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3029.1	11/13/1989	CAL	SA	UA	UD	**2500**	**9200**	< 1000	**6.7**	**5.3**	**70**	< 1	< 0.5	< 0.5	< 0.2	< 0.2	**0.63**	< 2	< 0.5	NA	NA	NA
3029.1	1/18/1990	CAL	SA	UA	UD	**2400**	**11000**	**150**	**21**	**30**	**130**	**22**	**3.4**	**2**	**1.7**	**0.89**	**5.4**	< 2	**0.54**	NA	NA	NA
3029.1	12/18/1990	CAL	SA	UA	UD	**8700**	**29000**	< 10000	**960**	**2200**	**2400**	**1300**	< 500	< 500	< 200	< 200	**560**	< 200	< 500	NA	NA	NA
3029.1	11/14/1991	LOSL	SA	UA	UD	**15351**	**116108**	**25232**	**6984**	**12778**	**13492**	**12951**	**1946**	**1081**	**1297**	< 541	**1946**	< 541	< 541	NA	NA	NA
3029.1	2/17/1992	LOSL	SA	UA	UD	**15468**	**91626**	**15271**	**4335**	**7586**	**8424**	**7833**	**1872**	< 1232	< 1232	< 1232	**2365**	< 1232	< 1232	NA	NA	NA
3029.1	9/28/2007	CAS-Kelso	SA	UA	UD	**4200**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3029.1	4/29/2008	CAS-Kelso	SA	UA	UD	**3200**	**13000**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3029.1	4/29/2008	CAS-Kelso	SA	UA	UD	**3900**	**12000**	**370**	**31**	**33**	**120**	**28**	**5.7**	**2.4**	**3.2**	**1.2**	**6**	**0.24**	**0.91**	**3.5**	**1.23**	**2.99**
3029.1	10/6/2008	CAS-Kelso	SA	UA	UD	**3100**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3029.1	10/23/2009	CAS	SA	UA	UD	**2900**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3029.1	9/14/2013	LOSL	SA	UA	UD	**506**	**7520**	**938**	**291**	**448**	**501**	**389**	**102**	< 35	< 35	< 35	**116**	< 35	< 35	NA	NA	NA
3029.1	8/3/2015	LOSL	SA	UA	UD	**694**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3029.1	9/27/2016	ALS	SA	UA	UD	**1500**	**34000**	**5100**	**1600**	**2700**	**2700**	**1900**	**320**	**130**	**180**	**72**	**370**	**13**	**50**	NA	NA	**5.18**
3030.1	11/14/1989	CAL	SA	UA	US	**1400**	**29000**	< 10000	**560**	**1200**	**1800**	**920**	**210**	**73**	**75**	**38**	< 500	< 200	< 50	NA	NA	NA
3030.1	6/8/2016	ALS	SA	UA	US	**54**	**13000**	**320**	**66**	**100**	**180**	**77**	**17**	**5.9**	**8.7**	**3.7**	**18**	**0.55**	**1.9**	NA	NA	**18.6**
3030.1	6/8/2016	LOSL	SA	UA	US	**133**	**7700**	**381**	**98.5**	**149**	**216**	**128**	**19.5**	< 17.5	< 17.5	< 17.5	**19.5**	< 17.5	< 17.5	NA	NA	NA
3030.2	11/14/1989	CAL	SA	UA	UD	**10000**	**14000**	< 1000	**20**	**31**	**120**	**23**	< 5	**1.6**	**1.6**	**0.82**	**6.5**	< 2	< 0.5	NA	NA	NA
3030.2	6/8/2016	ALS	SA	UA	UD	**280**	**8800**	**150**	**10**	**6.7**	**65**	**4.1**	**0.63**	**0.14**	**0.23**	**0.075**	**0.48**	**0.015**	**0.048**	NA	NA	**17**
3030.2	6/8/2016	LOSL	SA	UA	UD	**148**	**5870**	**161**	**32.9**	**28.4**	**75.1**	**23.4**	**3.6**	< 3.5	< 3.5	< 3.5	**4**	< 3.5	< 3.5	NA	NA	NA
3031.1	7/23/1990	CAL	SS	UA	US	**120**	**1300**	< 1000	**40**	**61**	**160**	**39**	**7**	< 5	**2.7**	< 2	< 50	< 2	< 5	NA	NA	NA
3031.1	7/23/1990	CAL	SA	UA	US	**120**	**1300**	< 1000	**40**	**61**	**160**	**39**	**7**	< 5	**2.7**	< 2	< 50	< 2	< 5	NA	NA	NA
3031.1	11/7/1991	LOSL	SA	UA	US	**320**	**1980**	**630**	**100**	**140**	**140**	**120**	< 50	< 50	< 50	< 50	< 50	< 50	< 50	NA	NA	NA
3031.1	2/19/1992	LOSL	SA	UA	US	**4020**	**3040**	**4881**	**842**	**1228**	**3503**	**1188**	< 248	< 248	< 248	< 248	< 248	< 248	< 248	NA	NA	NA
3031.1	9/28/2007	CAS-Kelso	SA	UA	US	**36**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3031.1	10/1/2008	CAS-Kelso	SA	UA	US	**73**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3031.1	10/27/2009	CAS	SA	UA	US	**1.9**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3031.1	6/10/2016	ALS	SA	UA	US	**18**	**460**	**120**	**4.9**	**3.2**	**52**	**2.3**	**0.19**	**0.032**	**0.055**	**0.021**	**0.2**	**0.0028**	**0.009**	NA	NA	**24.1**
3031.1	6/10/2016	LOSL	SA	UA	US	**51**	**455**	**142**	**17.4**	**21.1**	**77.9**	**16.9**	< 4.2	< 4.2	< 4.2	< 4.2	< 4.2	< 4.2	< 4.2	NA	NA	NA

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
3031.2	11/13/1989	CAL	SS	UA	UM	**270**	**2800**	< 1000	**5.8**	**5.7**	< 100	**4.2**	< 0.5	< 0.5	**0.23**	< 0.2	**0.93**	< 2	< 0.5	NA	NA	NA
3031.2	11/13/1989	CAL	SA	UA	UM	**270**	**2800**	< 1000	**5.8**	**5.7**	< 100	**4.2**	< 0.5	< 0.5	**0.23**	< 0.2	**0.96**	< 2	< 0.5	NA	NA	NA
3031.2	8/20/1990	CAL	SA	UA	UM	**1100**	**1600**	< 100	**3.6**	**2.4**	**35**	**1.5**	< 0.5	< 0.5	< 0.2	< 0.2	< 0.5	< 2	< 0.5	NA	NA	NA
3031.2	11/7/1991	LOSL	SA	UA	UM	**354**	**2588**	**75**	< 31	< 31	**38**	< 31	< 31	< 31	< 31	< 31	< 31	< 31	< 31	NA	NA	NA
3031.2	2/17/1992	LOSL	SA	UA	UM	**3417**	**12668**	**417**	**98**	**149**	**243**	**147**	**32**	< 24	< 24	< 24	**42**	< 24	< 24	NA	NA	NA
3031.2	9/28/2007	CAS-Kelso	SA	UA	UM	**240**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3031.2	10/1/2008	CAS-Kelso	SA	UA	UM	**160**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3031.2	10/27/2009	CAS	SA	UA	UM	**760**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3031.2	9/13/2013	LOSL	SA	UA	UM	**269.8**	**2680**	**136**	**8.8**	< 7	**67.4**	< 7	< 7	< 7	< 7	< 7	< 7	< 7	< 7	NA	NA	NA
3031.2	8/4/2015	LOSL	SA	UA	UM	**247**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3031.2	9/24/2016	ALS	SA	UA	UM	**390**	**2600**	**160**	**11**	**11**	**77**	**8.4**	**1.4**	**0.48**	**0.73**	**0.3**	**1.6**	**0.055**	**0.16**	NA	NA	**25.2**
3032.1	11/13/1989	CAL	SA	UA	US	**270**	**17000**	< 10000	**1400**	**3100**	**4900**	**2200**	**360**	**170**	**170**	**87**	**1000**	< 200	< 50	NA	NA	NA
3032.1	2/20/1990	CAL	SA	UA	US	**85**	< 500	< 1000	**270**	**600**	**820**	**500**	**100**	< 50	**33**	< 20	**160**	< 200	< 50	NA	NA	NA
3032.1	3/19/1990	LOSL	SA	UA	US	**173**	< 25	**96**	< 25	< 25	**95**	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	NA	NA	NA
3032.1	5/21/1990	CAL	SA	UA	US	**1**	**9.1**	< 10	**0.72**	**1.5**	**2.2**	**2**	< 0.5	**0.056**	< 0.2	**0.03**	< 0.5	< 0.2	< 0.2	NA	NA	NA
3032.1	6/18/1990	CAL	SA	UA	US	**0.62**	< 5	< 10	< 0.7	< 0.5	**1.1**	< 1	< 0.08	**0.073**	**0.036**	< 0.02	< 0.5	< 0.2	< 0.2	NA	NA	NA
3032.1	11/6/1991	LOSL	SA	UA	US	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	NA	NA	NA
3032.1	11/11/1992	CAL	SA	UA	US	**0.75**	< 5	< 10	< 0.7	**2**	< 1	**1.6**	< 0.2	**0.23**	**0.2**	**0.11**	< 0.5	< 0.2	< 0.2	NA	NA	NA
3032.1	11/11/1992	CAL	FD	UA	US	**0.98**	< 5	< 10	**1.5**	**7.8**	**2.1**	**6**	< 1.5	**0.74**	**0.68**	**0.38**	< 5	< 2	< 0.5	NA	NA	NA
3032.1	3/2/1994	LOSL	UNK	UA	US	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3032.1	9/10/2013	LOSL	SA	UA	US	**16.2**	**257**	**78.4**	**7.7**	**6.5**	**36.2**	**3.8**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3032.1	7/30/2015	LOSL	SA	UA	US	**18.6**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3032.1	9/21/2016	ALS	SA	UA	US	**0.61**	**98**	**61**	**3**	**3.9**	**28**	**2.4**	**0.26**	**0.14**	**0.18**	**0.079**	**0.35**	**0.021**	**0.092**	NA	NA	**16.7**
3033.1	4/16/1991	CAL	SA	UA	US	**1.9**	< 5	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3033.1	9/16/1991	CAL	SA	UA	US	**6.6**	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3033.1	3/23/1992	CAL	SA	UA	US	**0.79**	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3033.1	9/24/1992	CAL	UNK	UA	US	**18**	< 5	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3033.1	9/24/1992	CAL	SA	UA	US	**14**	< 5	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3033.1	3/9/1993	CAL	SA	UA	US	**1.3**	< 2.2	< 2.2	< 0.76	< 0.22	< 0.22	< 0.33	< 0.087	< 0.054	< 0.022	< 0.022	< 0.22	< 0.22	< 0.22	NA	NA	NA
3033.1	9/2/1993	CAL	SA	UA	US	**80**	< 5	< 10	< 7	< 2	< 1	< 3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3033.1	3/21/1994	CAL	SA	UA	US	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3033.1	8/16/1994	QES	UNK	UA	US	**98**	< 5	< 10	< 0.7	< 0.2	< 1	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3033.1	8/16/1994	QES	SA	UA	US	**89**	< 5	< 10	< 0.7	< 0.2	< 1	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3033.1	3/16/1995	QES	UNK	UA	US	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3033.1	3/16/1995	QES	SA	UA	US	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3033.1	8/15/1995	QES	SA	UA	US	**97**	< 2.4	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3033.1	3/25/1996	QES	SA	UA	US	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3033.1	3/25/1996	QES	FD	UA	US	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3034.1	4/16/1991	CAL	UNK	UA	US	**1.8**	< 5	< 10	< 0.7	< 0.2	< 1	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3034.1	4/16/1991	CAL	SA	UA	US	**1.3**	< 5	< 10	< 0.7	< 0.2	< 1	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
3034.1	9/16/1991	CAL	SA	UA	US	< 0.5	< 5	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3034.1	3/23/1992	CAL	SA	UA	US	**0.62**	< 5	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3034.1	9/24/1992	CAL	SA	UA	US	< 0.5	< 5	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3034.1	3/10/1993	CAL	SA	UA	US	< 0.5	< 5.2	< 2.2	< 0.76	< 0.22	< 0.22	< 0.32	< 0.086	< 0.054	< 0.022	< 0.022	< 0.22	< 0.22	< 0.22	NA	NA	NA
3034.1	3/10/1993	CAL	FD	UA	US	< 0.5	< 5.2	< 2.1	< 0.73	NA	< 0.21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3034.1	9/2/1993	CAL	SA	UA	US	< 0.5	< 5	< 10	< 7	< 2	< 1	< 3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3034.1	3/21/1994	CAL	SA	UA	US	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3034.1	8/16/1994	QES	SA	UA	US	< 0.5	< 5	< 10	< 0.7	< 0.2	< 1	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3034.1	3/16/1995	QES	SA	UA	US	**2.6**	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3034.1	8/15/1995	QES	SA	UA	US	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3034.1	3/25/1996	QES	SA	UA	US	**1.2**	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3035.1	4/16/1991	CAL	SA	UA	US	**1.7**	< 5	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3035.1	9/17/1991	CAL	SA	UA	US	**380**	< 50	< 10	< 0.7	< 0.5	< 1	< 1	< 0.5	< 0.5	< 0.2	< 0.2	< 0.5	< 2	< 0.5	NA	NA	NA
3035.1	3/24/1992	CAL	UNK	UA	US	**86**	< 5	< 5	< 0.7	< 0.2	< 1	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3035.1	3/24/1992	CAL	SA	UA	US	**73**	< 5	< 5	< 0.7	< 0.2	< 1	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3035.1	9/24/1992	CAL	SA	UA	US	**380**	< 50	< 10	< 0.7	< 0.5	< 1	< 1	< 0.5	< 0.5	< 0.2	< 0.2	< 0.5	< 2	< 0.5	NA	NA	NA
3037.1	7/9/2016	ALS	SA	UA	US	**1.1**	**0.15**	**0.019**	**0.72**	**0.11**	**0.067**	**0.17**	**0.04**	**0.067**	**0.097**	**0.022**	**0.05**	**0.014**	**0.099**	NA	NA	**5.73**
3038.1	6/24/1992	CAL	SA	UA	US	**2.5**	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	< 5	NA	NA
3038.1	6/24/1992	LOSL	SA	UA	US	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3038.1	6/27/1992	CAL	SA	UA	US	**2.5**	< 2	< 2	< 0.7	NA	< 0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3038.1	3/9/1994	LOSL	SA	UA	US	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	NA	NA	NA
3038.1	5/31/2016	ALS	SA	UA	US	< 0.5	< 0.02	**0.0044**	**0.012**	< 0.02	< 0.02	< 0.02	**0.0027**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**14**
3038.1	5/31/2016	LOSL	SA	UA	US	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3038.2	6/24/1992	LOSL	SA	UA	UD	**71**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3038.2	11/12/1992	LOSL	SA	UA	UD	**27**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3038.2	3/9/1994	LOSL	SA	UA	UD	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	NA	NA	NA
3038.2	5/31/2016	ALS	SA	UA	UD	< 0.5	**3.5**	**0.32**	**0.098**	**0.13**	**1.5**	**0.068**	**0.0032**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**2**
3038.2	5/31/2016	LOSL	SA	UA	UD	< 3.5	**3.5**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3039.1	6/23/1992	LOSL	SS	UA	US	**1327**	**5344**	**681**	**109**	**184**	**259**	**163**	< 33	< 33	< 33	< 33	**31**	< 33	< 33	NA	NA	NA
3039.1	6/23/1992	CAL	SA	UA	US	**900**	**740**	< 1000	**25**	**46**	< 100	**36**	< 7	**2.2**	**2.1**	**1.4**	**8.3**	< 2	**0.72**	< 25	NA	NA
3039.1	6/23/1992	LOSL	SA	UA	US	**1327**	**5344**	**681**	**109**	**184**	**259**	**163**	< 33	< 33	< 33	< 33	**31**	< 33	< 33	NA	NA	NA
3039.1	9/26/2007	CAS-Kelso	SA	UA	US	**180**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3039.1	10/1/2008	CAS-Kelso	SA	UA	US	**360**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3039.1	10/27/2009	CAS	SA	UA	US	**150**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3039.1	6/10/2016	ALS	SA	UA	US	**110**	**2800**	**300**	**67**	**140**	**180**	**120**	**30**	**10**	**16**	**6.2**	**33**	**0.9**	**3.2**	NA	NA	**41.8**
3039.1	6/10/2016	LOSL	SA	UA	US	**221**	**2140**	**219**	**73**	**105**	**140**	**92**	< 35	< 35	< 35	< 35	< 35	< 35	< 35	NA	NA	NA
3039.2	6/23/1992	LOSL	SA	UA	UD	**729**	**1852**	**51**	< 32	< 32	**34**	< 32	< 32	< 32	< 32	< 32	< 32	< 32	< 32	NA	NA	NA
3039.2	9/1/1992	LOSL	SSFD	UA	UD	**425**	**1582**	**43**	< 29	< 29	< 29	< 29	< 29	< 29	< 29	< 29	< 29	< 29	< 29	NA	NA	NA
3039.2	9/1/1992	LOSL	SS	UA	UD	**470**	**1733**	**48**	< 29	< 29	< 29	< 29	< 29	< 29	< 29	< 29	< 29	< 29	< 29	NA	NA	NA
3039.2	9/1/1992	CAL	SA	UA	UD	**670**	**460**	**110**	< 0.7	**2**	**29**	**1.7**	< 0.5	< 0.5	< 0.2	< 0.2	< 0.5	< 2	< 0.5	NA	NA	NA

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
3039.2	9/1/1992	LOSL	SA	UA	UD	**470**	**1733**	**48**	< 29	< 29	< 29	< 29	< 29	< 29	< 29	< 29	< 29	< 29	< 29	NA	NA	NA
3039.2	11/12/1992	LOSL	SA	UA	UD	**258**	**1547**	**45**	< 31	< 31	< 31	< 31	< 31	< 31	< 31	< 31	< 31	< 31	< 31	NA	NA	NA
3039.2	9/26/2007	CAS-Kelso	SA	UA	UD	**470**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3039.2	9/30/2008	CAS-Kelso	SA	UA	UD	**230**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3039.2	10/27/2009	CAS	SA	UA	UD	**150**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3039.2	7/30/2015	LOSL	SA	UA	UD	**700**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3039.2	9/24/2016	ALS	SA	UA	UD	**2.9**	**2800**	**1800**	**600**	**1700**	**940**	**780**	**210**	**93**	**130**	**57**	**210**	**10**	**40**	NA	NA	**7.95**
3040.1	6/24/1992	LOSL	SSFD	UA	US	< 7	< 7	< 7	< 7	< 7	< 7	< 7	< 7	< 7	< 7	< 7	< 7	< 7	< 7	NA	NA	NA
3040.1	6/24/1992	LOSL	SS	UA	US	< 6	< 6	< 6	< 6	< 6	< 6	< 6	< 6	< 6	< 6	< 6	< 6	< 6	< 6	NA	NA	NA
3040.1	6/24/1992	CAL	SA	UA	US	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	< 5	NA	NA
3040.1	6/24/1992	LOSL	SA	UA	US	< 7	< 7	< 7	< 7	< 7	< 7	< 7	< 7	< 7	< 7	< 7	< 7	< 7	< 7	NA	NA	NA
3040.1	3/30/1993	CAL	SA	UA	US	**82**	< 5	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3040.1	3/8/1994	CAL	UNK	UA	US	**1000**	< 5	< 2	< 0.7	< 0.2	< 0.5	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3040.1	3/8/1994	CAL	SA	UA	US	**1000**	< 5	< 2	< 0.7	< 0.2	< 0.5	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3040.1	3/7/1995	QES	SA	UA	US	**1.2**	< 2	< 2	< 0.7	< 0.2	< 0.2	**0.3**	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3040.1	3/18/1996	LOSL	SA	UA	US	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3040.1	3/18/1996	QES	SA	UA	US	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3040.1	4/15/1997	QES	SA	UA	US	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3040.1	8/4/1998	QES	SA	UA	US	< 0.5	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
3040.1	7/26/1999	QES	SA	UA	US	**0.55**	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
3040.1	7/15/2000	STL	SA	UA	US	< 0.5	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
3040.1	8/24/2001	STL	SA	UA	US	**1200**	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
3040.1	6/27/2002	CAS_K	SA	UA	US	< 0.5	**0.074**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	NA	NA	NA
3040.1	6/19/2003	CAS-Kelso	SA	UA	US	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
3040.1	7/6/2004	CAS-Kelso	SA	UA	US	**3.9**	< 0.02	< 0.02	**0.058**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
3040.1	8/1/2005	CAS-Kelso	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3040.1	11/4/2006	CAS-Kelso	SA	UA	US	**1000**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3040.1	9/26/2007	CAS-Kelso	SA	UA	US	**1.3**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3040.1	4/28/2008	CAS-Kelso	SA	UA	US	< 0.5	**1.5**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3040.1	4/28/2008	CAS-Kelso	SA	UA	US	< 0.99	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.5	**0.36**	**0.32**
3040.1	9/24/2008	CAS-Kelso	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3040.1	9/24/2009	CAS	SA	UA	US	**27**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3040.1	9/5/2010	CAS	SA	UA	US	**160**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5
3040.1	9/22/2012	CAS	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5
3040.1	9/21/2013	ALS	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**1.37**
3040.1	9/23/2014	ALS	SA	UA	US	< 0.5	< 0.02	< 0.02	**0.053**	< 0.02	< 0.02	< 0.02	**0.0028**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.57**
3040.1	7/26/2015	ALS	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.49**
3040.1	9/3/2016	ALS	SA	UA	US	< 0.5	< 0.02	< 0.02	< 0.079	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.46**
3041.1	6/26/1992	LOSL	SA	UA	US	**58**	**166**	**34**	< 17	< 17	**19**	< 17	< 17	< 17	< 17	< 17	< 17	< 17	< 17	NA	NA	NA
3041.1	3/17/1993	LOSL	SA	UA	US	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
3041.1	9/1/1993	LOSL	SA	UA	US	**29.6**	**3**	**2.9**	< 2.9	< 2.9	**3.9**	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	NA	NA	NA
3041.1	3/8/1994	LOSL	SA	UA	US	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3041.1	9/8/1994	LOSL	SA	UA	US	**43.9**	**434**	**27.5**	< 3.4	< 3.4	**13.5**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3041.1	3/3/1995	LOSL	SA	UA	US	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3041.1	9/7/1995	LOSL	UNK	UA	US	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3041.1	9/7/1995	LOSL	SA	UA	US	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3041.1	3/14/1996	LOSL	SA	UA	US	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3041.1	9/23/1996	LOSL	SA	UA	US	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3041.1	4/8/1997	LOSL	SA	UA	US	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3041.1	9/29/1997	LOSL	SA	UA	US	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	**3.3**	< 3.4	< 3.4	**7.57**	< 3.4	< 3.4	NA	NA	NA
3041.1	7/30/1998	LOSL	SA	UA	US	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3041.1	7/26/1999	LOSL	SA	UA	US	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3041.1	7/22/2000	LOSL	SA	UA	US	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3041.1	8/28/2001	LOSL	SS	UA	US	**27.54**	**13.9**	**7.48**	< 3.5	< 3.5	**3.5**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3041.1	6/25/2002	LOSL	SA	UA	US	< 0.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3041.1	6/27/2003	LOSL	SS	UA	US	**239.3**	**28.9**	**18.9**	< 3.5	< 3.5	**9.1**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3041.1	12/8/2003	CAS-Kelso	SA	UA	US	**2.9**	**130**	**60**	**3.5**	**1.3**	**28**	**0.97**	**0.0052**	< 0.02	< 0.02	< 0.02	**0.0084**	< 0.02	< 0.02	NA	NA	NA
3041.1	7/2/2004	LOSL	SA	UA	US	NA	**32.4**	**22.5**	< 3.5	< 3.5	**10.9**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3041.1	7/2/2004	LOSL	SA	UA	US	**161.7**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3041.1	11/19/2004	CAS-Kelso	SA	UA	US	**4.5**	**120**	**47**	**2.8**	**1.2**	**18**	**0.82**	**0.012**	< 0.02	< 0.02	< 0.02	**0.0086**	< 0.02	< 0.02	NA	NA	NA
3041.1	8/1/2005	CAS-Kelso	SA	UA	US	**190**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3041.1	11/9/2006	CAS-Kelso	SS	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3041.1	11/9/2006	LOSL	SA	UA	US	**24.5**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3041.1	11/9/2006	LOSL	FD	UA	US	**30.4**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3041.1	9/19/2007	LOSL	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3041.1	4/26/2008	CAS-Kelso	SA	UA	US	**240**	**29**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3041.1	4/26/2008	CAS-Kelso	SA	UA	US	**270**	< 0.2	**5.3**	< 0.2	< 0.2	**0.99**	**0.077**	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	**1.1**	**0.35**	**0.58**
3041.1	4/26/2008	CAS-Kelso	FD	UA	US	**260**	< 0.2	**4.6**	< 0.2	**0.094**	**0.44**	**0.066**	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	**1**	**0.4**	**0.51**
3041.1	4/26/2008	CAS-Kelso	FD	UA	US	**270**	**30**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3041.1	9/19/2008	LOSL	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3041.1	9/19/2008	LOSL	FD	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3041.1	9/11/2009	LOSL	SA	UA	US	< 3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3041.1	9/11/2009	LOSL	FD	UA	US	< 3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3041.1	9/2/2010	CAS	SA	UA	US	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**11.4**
3041.1	9/2/2010	LOSL	SA	UA	US	**4.3**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3041.1	9/10/2011	LOSL	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3041.1	9/10/2012	CAS	SA	UA	US	NA	**7**	**27**	**0.92**	**0.56**	**8.1**	**0.29**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**4.8**
3041.1	9/10/2012	LOSL	SA	UA	US	**0.53**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3041.1	9/9/2013	ALS	SA	UA	US	NA	**4**	**37**	**1**	**1**	**9.4**	**0.63**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**13.2**
3041.1	9/9/2013	LOSL	SA	UA	US	< 0.5	**106**	**57.6**	**4.6**	**3.6**	**21.6**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA

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LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
3041.1	9/5/2014	ALS	SA	UA	US	NA	**3**	**24**	**0.7**	**0.73**	**5.7**	**0.48**	**0.0062**	< 0.02	< 0.02	< 0.02	**0.0039**	< 0.02	< 0.02	NA	NA	**11.2**
3041.1	9/5/2014	LOSL	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3041.1	7/31/2015	ALS	SA	UA	US	NA	**100**	**58**	**2.7**	**1.6**	**27**	**0.78**	**0.015**	< 0.02	< 0.02	< 0.02	**0.0086**	< 0.02	< 0.02	NA	NA	**18.7**
3041.1	7/31/2015	LOSL	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3041.1	9/21/2016	ALS	SA	UA	US	< 0.5	**75**	**42**	**2.4**	**1.2**	**16**	**0.61**	**0.013**	< 0.02	< 0.02	< 0.02	**0.0065**	< 0.02	< 0.02	NA	NA	**16.1**
3041.2	6/26/1992	LOSL	SA	UA	UM	**152**	**777**	**56**	< 16	< 16	**34**	< 16	< 16	< 16	< 16	< 16	< 16	< 16	< 16	NA	NA	NA
3041.2	3/17/1993	LOSL	SA	UA	UM	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3041.2	9/1/1993	LOSL	SA	UA	UM	< 2.9	**2.9**	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	NA	NA	NA
3041.2	3/10/1994	LOSL	SA	UA	UM	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3041.2	9/8/1994	LOSL	SA	UA	UM	**40.1**	< 3.4	**14.5**	< 3.4	< 3.4	**11**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3041.2	3/3/1995	LOSL	SA	UA	UM	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3041.2	3/14/1996	LOSL	SA	UA	UM	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3041.2	4/8/1997	LOSL	SA	UA	UM	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3041.2	9/29/1997	LOSL	SA	UA	UM	< 3.68	< 3.68	< 3.68	< 3.68	< 3.68	< 3.68	< 3.68	< 3.68	< 3.68	< 3.68	< 3.68	< 3.68	< 3.68	< 3.68	NA	NA	NA
3041.2	7/30/1998	LOSL	SA	UA	UM	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3041.2	7/26/1999	LOSL	SA	UA	UM	**7**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3041.2	7/22/2000	LOSL	SA	UA	UM	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3041.2	8/28/2001	LOSL	SS	UA	UM	< 0.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3041.2	6/19/2002	LOSL	SA	UA	UM	< 0.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3041.2	6/27/2003	LOSL	SS	UA	UM	**9.26**	**19.7**	**3.8**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3041.2	12/6/2003	CAS-Kelso	SA	UA	UM	**2.4**	**3.2**	**12**	**0.22**	**0.029**	**5**	**0.02**	**0.0027**	< 0.02	**0.0023**	**0.002**	**0.0041**	< 0.02	< 0.02	NA	NA	NA
3041.2	7/2/2004	LOSL	SA	UA	UM	**0.81**	**32.4**	**53.4**	**4.1**	< 3.5	**17.2**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3041.2	7/2/2004	LOSL	SA	UA	UM	< 3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3041.2	11/19/2004	CAS-Kelso	SA	UA	UM	**0.27**	**14**	**42**	**2.3**	**0.45**	**8.3**	**0.26**	**0.01**	< 0.02	< 0.02	< 0.02	**0.0045**	< 0.02	< 0.02	NA	NA	NA
3041.2	8/1/2005	LOSL	SS	UA	UM	< 2.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3041.2	8/1/2005	CAS-Kelso	SA	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3041.2	8/1/2005	CAS-Kelso	FD	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3041.2	11/8/2006	LOSL	SS	UA	UM	**42.4**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3041.2	11/8/2006	CAS-Kelso	SA	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3041.2	9/19/2007	LOSL	SA	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3041.2	4/26/2008	CAS-Kelso	SA	UA	UM	**5.4**	**86**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3041.2	4/26/2008	CAS-Kelso	SA	UA	UM	**6.6**	**44**	**39**	**2.1**	**0.99**	**14**	**0.58**	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	**0.59**	**6.09**	**26.4**
3041.2	9/19/2008	LOSL	SA	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3041.2	9/11/2009	LOSL	SA	UA	UM	< 3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3041.2	9/2/2010	CAS	SA	UA	UM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**23.6**
3041.2	9/2/2010	LOSL	SA	UA	UM	**0.76**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3041.2	9/10/2011	LOSL	SA	UA	UM	**1.04**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3041.2	9/10/2012	CAS	SA	UA	UM	NA	**6.8**	**36**	**1.4**	**0.75**	**16**	**0.38**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**23**
3041.2	9/10/2012	LOSL	SA	UA	UM	**3.1**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3041.2	9/9/2013	ALS	SA	UA	UM	NA	**38**	**48**	**1.7**	**0.94**	**19**	**0.58**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**20.8**

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LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
3041.2	9/9/2013	LOSL	SA	UA	UM	< 0.5	**33.1**	**33.5**	**4.6**	**6.1**	**15.8**	**3.6**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3041.2	9/5/2014	ALS	SA	UA	UM	NA	**27**	**47**	**1.9**	**1.1**	**18**	**0.62**	**0.0057**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**27.8**
3041.2	9/5/2014	LOSL	SA	UA	UM	**10.4**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3041.2	7/31/2015	ALS	SA	UA	UM	NA	**41**	**48**	**1.7**	**0.93**	**21**	**0.42**	**0.0061**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**21.4**
3041.2	7/31/2015	LOSL	SA	UA	UM	**1.29**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3041.2	9/21/2016	ALS	SA	UA	UM	**6**	**25**	**31**	**1.5**	**0.66**	**13**	**0.32**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**23.2**
3042.1	6/25/1992	CAL	SA	UA	US	**370**	< 500	< 1000	**54**	**110**	**310**	**88**	< 15	**5.2**	**4.4**	**3**	< 5	< 2	< 0.5	< 5	NA	NA
3042.1	6/25/1992	LOSL	SA	UA	US	**686**	**1083**	**402**	**51**	**66**	**129**	**56**	< 18	< 18	< 18	< 18	< 18	< 18	< 18	NA	NA	NA
3042.1	3/17/1993	LOSL	SA	UA	US	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	**12**	< 3	**3**	< 3	< 3	NA	NA	NA
3042.1	9/1/1993	LOSL	SA	UA	US	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	NA	NA	NA
3042.1	3/8/1994	LOSL	SA	UA	US	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	NA	NA	NA
3042.1	9/8/1994	LOSL	SA	UA	US	**44.1**	**204.5**	**35.3**	**3.5**	< 3.4	**18.4**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3042.1	3/3/1995	LOSL	SA	UA	US	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3042.1	9/7/1995	LOSL	SA	UA	US	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3042.1	3/14/1996	LOSL	SA	UA	US	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3042.1	9/23/1996	LOSL	SA	UA	US	< 3.4	**18.6**	**7.35**	< 3.4	< 3.4	**4.7**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3042.1	4/8/1997	LOSL	SA	UA	US	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3042.1	9/29/1997	LOSL	SA	UA	US	< 3.4	**18.54**	**3.3**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3042.1	7/30/1998	LOSL	SA	UA	US	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3042.1	7/26/1999	LOSL	SA	UA	US	**7.5**	**58.4**	**21.9**	**7.7**	**6.9**	**12.4**	**6.4**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	**4.2**	NA	NA	NA
3042.1	7/22/2000	LOSL	SA	UA	US	**12.8**	**15.9**	**11.4**	< 3.4	< 3.4	**5.8**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3042.1	9/1/2001	LOSL	SS	UA	US	**228.9**	**604.8**	**74**	**10.8**	< 7	**34.4**	< 7	< 7	< 7	< 7	< 7	< 7	< 7	< 7	NA	NA	NA
3042.1	6/26/2002	LOSL	SA	UA	US	**10.92**	< 3.5	**20.3**	< 3.5	< 3.5	**19.1**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3042.1	6/27/2003	LOSL	SS	UA	US	**5.87**	**89.5**	**50.8**	**7.5**	< 3.5	**24.9**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3042.1	9/22/2007	CAS-Kelso	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3042.1	9/22/2007	LOSL	SA	UA	US	**1.336**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3042.1	4/29/2008	CAS-Kelso	SA	UA	US	**0.21**	**76**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3042.1	4/29/2008	CAS-Kelso	SA	UA	US	< 5	**44**	**35**	**1.6**	**2.2**	**13**	**1.9**	< 0.99	< 0.99	< 0.99	< 0.99	< 0.99	< 0.99	< 0.99	**0.32**	**2.57**	**7.57**
3042.1	9/19/2008	LOSL	SS	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3042.1	9/23/2008	CAS-Kelso	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3042.1	9/21/2009	LOSL	SS	UA	US	< 3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3042.1	9/21/2009	CAS	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3042.1	9/3/2010	CAS	SA	UA	US	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**10.7**
3042.1	9/3/2010	LOSL	SA	UA	US	**0.77**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3042.1	9/16/2011	LOSL	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3042.1	9/11/2012	CAS	SA	UA	US	NA	**5.1**	**27**	**0.81**	**0.88**	**8.6**	**0.47**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	NA	**10.9**
3042.1	9/11/2012	LOSL	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3042.1	9/10/2013	ALS	SA	UA	US	NA	**6**	**24**	**1.1**	**1.2**	**11**	**0.77**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**9.7**
3042.1	9/11/2013	LOSL	SA	UA	US	< 0.5	**8.7**	**18**	< 3.5	< 3.5	**8.5**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3042.1	9/6/2014	ALS	SA	UA	US	NA	**5.1**	**27**	**1.7**	**2.1**	**9.6**	**1.4**	**0.13**	**0.086**	**0.12**	**0.041**	**0.16**	**0.014**	**0.069**	NA	NA	**9.6**

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
3042.1	9/6/2014	LOSL	SA	UA	US	**11.7**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3042.1	8/1/2015	ALS	SA	UA	US	NA	**8.6**	**26**	**1.4**	**1.4**	**9.9**	**0.73**	**0.033**	**0.018**	**0.023**	**0.0065**	**0.025**	**0.0029**	**0.016**	NA	NA	**9.59**
3042.1	8/1/2015	LOSL	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3042.1	9/21/2016	ALS	SA	UA	US	< 0.5	**2.3**	**12**	**0.72**	**0.79**	**5**	**0.39**	**0.015**	< 0.02	< 0.02	< 0.02	**0.005**	< 0.02	< 0.02	NA	NA	**7.79**
3042.1	9/21/2016	ALS	FD	UA	US	< 0.5	**2.4**	**12**	**0.82**	**0.82**	**6**	**0.41**	**0.0088**	< 0.02	< 0.02	< 0.02	**0.0053**	< 0.02	< 0.02	NA	NA	**7.62**
3042.2	6/25/1992	LOSL	SA	UA	UM	**261**	**762**	**56**	< 17	< 17	**31**	< 17	< 17	< 17	< 17	< 17	< 17	< 17	< 17	NA	NA	NA
3042.2	3/17/1993	LOSL	SSFD	UA	UM	< 3	< 3	< 3	< 3	< 3	**7**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3042.2	3/17/1993	LOSL	SS	UA	UM	< 3	< 3	< 3	< 3	< 3	**7**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3042.2	3/17/1993	CAL	SA	UA	UM	**0.71**	< 5	< 10	< 0.7	< 0.5	**5.6**	< 0.3	< 0.08	< 0.05	< 0.2	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3042.2	3/17/1993	LOSL	SA	UA	UM	< 3	< 3	< 3	< 3	< 3	**7**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3042.2	9/1/1993	LOSL	SA	UA	UM	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	NA	NA	NA
3042.2	3/10/1994	LOSL	SA	UA	UM	< 3.4	< 3.4	< 3.4	< 3.4	**3.1**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3042.2	9/8/1994	LOSL	SA	UA	UM	**18.9**	**50.8**	**3**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3042.2	3/3/1995	LOSL	SA	UA	UM	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3042.2	9/7/1995	LOSL	SA	UA	UM	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3042.2	3/14/1996	LOSL	SA	UA	UM	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3042.2	3/14/1996	LOSL	FD	UA	UM	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3042.2	9/23/1996	LOSL	SA	UA	UM	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3042.2	4/8/1997	LOSL	SA	UA	UM	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3042.2	9/29/1997	LOSL	SA	UA	UM	< 3.68	< 3.68	< 3.68	< 3.68	< 3.68	< 3.68	< 3.68	< 3.68	< 3.68	< 3.68	< 3.68	< 3.68	< 3.68	< 3.68	NA	NA	NA
3042.2	7/30/1998	LOSL	SA	UA	UM	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3042.2	7/26/1999	LOSL	SA	UA	UM	< 3.4	**13.1**	**10.2**	< 3.4	< 3.4	**7.1**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3042.2	7/22/2000	LOSL	SA	UA	UM	**17.3**	**32.5**	**14.6**	< 3.4	< 3.4	**8.3**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3042.2	7/22/2000	STL	SA	UA	UM	**11**	**12**	< 2	**0.24**	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
3042.2	7/22/2000	LOSL	FD	UA	UM	**19**	**35.3**	**11.7**	< 3.4	< 3.4	**6**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3042.2	9/1/2001	LOSL	SS	UA	UM	**10.15**	< 3.5	**3.5**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3042.2	6/25/2002	LOSL	SA	UA	UM	< 0.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3042.2	6/27/2003	LOSL	SS	UA	UM	**4.05**	**4.9**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3042.2	12/6/2003	CAS-Kelso	SA	UA	UM	**0.2**	**3.1**	**6.9**	**0.5**	**0.67**	**2.4**	**0.62**	**0.061**	**0.0085**	**0.009**	**0.011**	**0.067**	< 0.02	**0.0025**	NA	NA	NA
3042.2	7/7/2004	LOSL	SA	UA	UM	**1.51**	**9.7**	**25.1**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3042.2	7/7/2004	LOSL	SA	UA	UM	< 3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3042.2	11/20/2004	CAS-Kelso	SA	UA	UM	**0.26**	**9.8**	**14**	**1**	**0.27**	**0.46**	**0.17**	**0.012**	< 0.02	**0.0077**	< 0.02	**0.01**	< 0.02	< 0.02	NA	NA	NA
3042.2	8/1/2005	CAS-Kelso	SA	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3042.2	11/11/2006	LOSL	SA	UA	UM	**35.9**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3042.2	9/22/2007	LOSL	SS	UA	UM	**0.658**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3042.2	9/22/2007	CAS-Kelso	SA	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3042.2	4/29/2008	CAS-Kelso	SA	UA	UM	< 0.5	**54**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3042.2	4/29/2008	CAS-Kelso	SA	UA	UM	< 0.98	**31**	**19**	**1.6**	**0.63**	**5.9**	< 0.35	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	**0.68**	**2.61**	**9.04**
3042.2	9/19/2008	LOSL	SS	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3042.2	9/23/2008	CAS-Kelso	SA	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
3042.2	9/21/2009	LOSL	SS	UA	UM	< 3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3042.2	9/21/2009	CAS	SA	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3042.2	9/3/2010	LOSL	SS	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3042.2	9/3/2010	CAS	SA	UA	UM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**9.5**
3042.2	9/16/2011	LOSL	SA	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3042.2	9/11/2012	CAS	SA	UA	UM	NA	**3.5**	**21**	**0.9**	**0.61**	**6.1**	**0.29**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**10.7**
3042.2	9/11/2012	LOSL	SA	UA	UM	**0.68**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3042.2	9/10/2013	ALS	SA	UA	UM	NA	**4.6**	**27**	**1.3**	**0.96**	**9.5**	**0.56**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**10.8**
3042.2	9/11/2013	LOSL	SA	UA	UM	< 0.5	**6.2**	**11.2**	< 3.5	< 3.5	**4**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3042.2	9/6/2014	ALS	SA	UA	UM	NA	**6.1**	**28**	**1.5**	**1.1**	**8.6**	**0.58**	**0.0044**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**11.5**
3042.2	9/6/2014	LOSL	SA	UA	UM	**9.8**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3042.2	8/1/2015	ALS	SA	UA	UM	NA	**7**	**27**	**1.6**	**1.3**	**8.4**	**0.67**	**0.0061**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**11.3**
3042.2	8/1/2015	LOSL	SA	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3042.2	9/21/2016	ALS	SA	UA	UM	< 0.5	**2.6**	**17**	**1.1**	**0.87**	**6**	**0.4**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**11.5**
3043.1	6/25/1992	LOSL	SA	UA	US	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3043.1	3/16/1993	LOSL	SA	UA	US	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3043.1	9/1/1993	LOSL	SA	UA	US	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	NA	NA	NA
3043.1	3/8/1994	LOSL	SA	UA	US	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3043.1	9/8/1994	LOSL	SA	UA	US	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3043.1	3/3/1995	LOSL	SA	UA	US	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3043.1	9/7/1995	LOSL	SA	UA	US	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3043.1	3/14/1996	LOSL	SA	UA	US	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3043.1	9/23/1996	LOSL	SA	UA	US	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3043.1	9/23/1996	QES	SA	UA	US	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
3043.1	4/8/1997	LOSL	SA	UA	US	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3043.1	9/29/1997	LOSL	SA	UA	US	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3043.1	9/29/1997	LOSL	FD	UA	US	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3043.1	7/30/1998	LOSL	SA	UA	US	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3043.1	7/26/1999	LOSL	SA	UA	US	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3043.1	7/22/2000	LOSL	SA	UA	US	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3043.1	8/28/2001	LOSL	SS	UA	US	< 0.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3043.1	6/19/2002	LOSL	SA	UA	US	< 0.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3043.1	6/27/2003	LOSL	SS	UA	US	< 0.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3043.1	12/6/2003	CAS-Kelso	SA	UA	US	< 0.5	**0.2**	**0.42**	**0.017**	**0.022**	**0.039**	**0.018**	**0.003**	< 0.02	< 0.02	< 0.02	**0.0051**	< 0.02	< 0.02	NA	NA	NA
3043.1	7/2/2004	LOSL	SA	UA	US	**1.99**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3043.1	7/2/2004	LOSL	SA	UA	US	< 3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3043.1	11/20/2004	CAS-Kelso	SA	UA	US	< 0.5	**0.19**	**0.06**	**0.021**	**0.0083**	**0.03**	**0.0086**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
3043.1	7/27/2005	CAS-Kelso	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3043.1	11/11/2006	LOSL	SA	UA	US	**1.9**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3043.1	9/22/2007	LOSL	SS	UA	US	**28.2**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
3043.1	9/22/2007	CAS-Kelso	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3043.1	4/26/2008	CAS-Kelso	SA	UA	US	< 0.5	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3043.1	4/26/2008	CAS-Kelso	SA	UA	US	< 0.99	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.5	**0.11**	**0.1**
3043.1	9/19/2008	LOSL	SS	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3043.1	9/23/2008	CAS-Kelso	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3043.1	9/11/2009	LOSL	SA	UA	US	< 3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3043.1	10/23/2009	CAS	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3043.1	9/4/2010	CAS	SA	UA	US	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5
3043.1	9/4/2010	LOSL	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3043.1	9/10/2011	LOSL	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3043.1	9/10/2012	CAS	SA	UA	US	NA	**0.089**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	NA	< 0.5
3043.1	9/10/2012	LOSL	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3043.1	9/10/2013	ALS	SA	UA	US	NA	**0.05**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
3043.1	9/10/2013	LOSL	SA	UA	US	< 0.5	< 3.5	**4.8**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3043.1	9/6/2014	ALS	SA	UA	US	NA	**0.0088**	< 0.02	**0.011**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.1**
3043.1	9/6/2014	LOSL	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3043.1	7/31/2015	ALS	SA	UA	US	NA	**0.004**	**0.0048**	**0.012**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	< 0.5
3043.1	7/31/2015	LOSL	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3043.1	9/5/2016	ALS	SA	UA	US	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	< 0.5
3043.2	6/25/1992	LOSL	SA	UA	UM	**415**	**10**	**13**	**3**	< 3	**12**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3043.2	3/16/1993	LOSL	SA	UA	UM	**19**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3043.2	9/1/1993	CAL	SA	UA	UM	< 0.5	< 5	< 20	< 7	< 2	< 2	< 3	< 0.8	< 0.5	< 0.2	< 0.2	< 0.5	< 2	< 2	NA	NA	NA
3043.2	9/1/1993	LOSL	SA	UA	UM	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	NA	NA	NA
3043.2	3/10/1994	LOSL	SA	UA	UM	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3043.2	9/8/1994	LOSL	SA	UA	UM	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3043.2	3/3/1995	LOSL	SA	UA	UM	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3043.2	9/7/1995	LOSL	SA	UA	UM	**39.5**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3043.2	3/14/1996	LOSL	SA	UA	UM	**5.4**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3043.2	3/14/1996	LOSL	FD	UA	UM	**11.7**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3043.2	9/23/1996	LOSL	SA	UA	UM	**21.9608**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3043.2	9/23/1996	LOSL	FD	UA	UM	**13.3333**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3043.2	4/8/1997	LOSL	SA	UA	UM	**12.6**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3043.2	9/29/1997	LOSL	SA	UA	UM	< 3.68	< 3.68	< 3.68	< 3.68	< 3.68	< 3.68	< 3.68	< 3.68	< 3.68	< 3.68	< 3.68	< 3.68	< 3.68	< 3.68	NA	NA	NA
3043.2	7/30/1998	LOSL	SA	UA	UM	**9.4**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3043.2	7/30/1998	QES	SA	UA	UM	**3.7**	< 1	< 2	< 0.04	< 0.1	**0.24**	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
3043.2	7/30/1998	LOSL	FD	UA	UM	**12.4**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
3043.2	7/30/1999	LOSL	SA	UA	UM	**24.3**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3043.2	7/22/2000	LOSL	SA	UA	UM	**37**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3043.2	9/1/2001	LOSL	SS	UA	UM	< 0.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3043.2	6/25/2002	LOSL	SA	UA	UM	**0.7**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
3043.2	6/27/2003	LOSL	SS	UA	UM	**0.89**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3043.2	12/6/2003	CAS-Kelso	SA	UA	UM	**60**	**2.8**	**3.3**	**0.17**	**0.43**	**2.4**	**0.38**	**0.05**	**0.01**	**0.015**	**0.014**	**0.061**	< 0.02	**0.0039**	NA	NA	NA
3043.2	7/2/2004	LOSL	SA	UA	UM	**69.5**	**18.3**	**8.3**	< 3.5	< 3.5	**5.3**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3043.2	11/20/2004	CAS-Kelso	SA	UA	UM	**46**	**16**	**8.2**	**0.1**	**0.17**	**5.9**	**0.091**	**0.0062**	< 0.02	< 0.02	< 0.02	**0.0049**	< 0.02	**0.0054**	NA	NA	NA
3043.2	11/20/2004	CAS-Kelso	FD	UA	UM	**49**	**9.4**	**5.9**	**0.068**	**0.1**	**3.1**	**0.055**	**0.0071**	< 0.02	< 0.02	< 0.02	**0.0056**	< 0.02	< 0.02	NA	NA	NA
3043.2	7/27/2005	CAS-Kelso	SA	UA	UM	**10**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3043.2	11/11/2006	LOSL	SA	UA	UM	**35.3**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3043.2	9/22/2007	LOSL	SS	UA	UM	**7.1**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3043.2	9/22/2007	CAS-Kelso	SA	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3043.2	9/22/2007	CAS-Kelso	FD	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3043.2	4/26/2008	CAS-Kelso	SA	UA	UM	**0.42**	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3043.2	4/26/2008	CAS-Kelso	SA	UA	UM	**0.79**	< 0.2	**0.38**	< 0.2	**0.021**	**0.21**	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.5	**0.07**	**0.15**
3043.2	4/26/2008	CAS-Kelso	FD	UA	UM	< 0.99	< 0.2	**0.14**	< 0.2	< 0.2	**0.072**	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	NA	NA	NA
3043.2	4/26/2008	CAS-Kelso	FD	UA	UM	**2.5**	< 0.2	**1**	< 0.2	**0.035**	**0.54**	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.5	**0.15**	**0.1**
3043.2	4/26/2008	CAS-Kelso	FD	UA	UM	**0.49**	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3043.2	9/19/2008	LOSL	SS	UA	UM	**0.627**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3043.2	9/23/2008	CAS-Kelso	SA	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3043.2	9/11/2009	LOSL	SA	UA	UM	**3.5**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3043.2	10/23/2009	CAS	SA	UA	UM	**0.55**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3043.2	9/4/2010	LOSL	SSFD	UA	UM	**6**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3043.2	9/4/2010	LOSL	SS	UA	UM	**3.5**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3043.2	9/4/2010	CAS	SA	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5
3043.2	9/4/2010	CAS	FD	UA	UM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5
3043.2	9/10/2011	LOSL	SA	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3043.2	9/10/2011	LOSL	FD	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3043.2	9/10/2012	CAS	SA	UA	UM	NA	**0.12**	**0.36**	< 0.02	< 0.02	**0.48**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
3043.2	9/10/2013	ALS	SA	UA	UM	NA	**0.036**	**0.76**	< 0.02	< 0.02	**0.19**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
3043.2	9/10/2013	LOSL	SA	UA	UM	< 0.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3043.2	9/6/2014	ALS	SA	UA	UM	NA	**0.07**	**0.49**	**0.015**	< 0.02	**0.25**	< 0.02	**0.0028**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.1**
3043.2	9/6/2014	LOSL	SA	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3043.2	7/31/2015	ALS	SA	UA	UM	NA	**3.7**	**33**	**0.52**	**1**	**19**	**0.45**	**0.0041**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	NA	NA	**1.05**
3043.2	7/31/2015	LOSL	SA	UA	UM	**0.9**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3043.2	9/5/2016	ALS	SA	UA	UM	< 0.5	< 0.047	< 0.34	< 0.02	< 0.02	< 0.18	**0.0054**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	< 0.5
3044.1	8/26/2016	ALS	SA	UA	UM	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.42**
3044.2	4/11/1994	LOSL	SA	IZ/LA	LS	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3044.2	3/8/1995	LOSL	SA	IZ/LA	LS	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3044.2	4/17/1997	LOSL	SA	IZ/LA	LS	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3044.2	7/26/1999	QES	SA	IZ/LA	LS	**0.63**	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
3044.2	7/15/2000	STL	SA	IZ/LA	LS	< 0.5	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
3044.2	6/19/2002	CAS_K	SA	IZ/LA	LS	< 0.5	**0.14**	**0.047**	< 0.021	**0.022**	**0.039**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	NA	NA	NA

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
3044.2	6/18/2003	CAS-Kelso	SA	IZ/LA	LS	< 0.5	**0.1**	< 0.042	< 0.042	< 0.042	< 0.042	< 0.042	< 0.042	< 0.042	< 0.042	< 0.042	< 0.042	< 0.042	< 0.042	NA	NA	NA
3044.2	6/30/2004	CAS-Kelso	SA	IZ/LA	LS	< 0.5	**0.17**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
3044.2	7/21/2005	CAS-Kelso	SA	IZ/LA	LS	**0.72**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3044.2	10/24/2006	CAS-Kelso	SA	IZ/LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3044.2	9/14/2007	CAS-Kelso	SA	IZ/LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3044.2	9/15/2008	CAS-Kelso	SA	IZ/LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3044.2	9/21/2009	CAS	SA	IZ/LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3044.2	9/6/2010	CAS	SA	IZ/LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5
3044.2	9/15/2012	CAS	SA	IZ/LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5
3044.2	9/16/2013	ALS	SA	IZ/LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.55**
3044.2	9/22/2014	ALS	SA	IZ/LA	LS	< 0.5	**0.011**	< 0.02	**0.0064**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.4**
3044.2	7/25/2015	ALS	SA	IZ/LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.49**
3044.2	8/26/2016	ALS	SA	IZ/LA	LS	**0.09**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.38**
3044.3	4/11/1994	LOSL	UNK	LA	LD	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3044.3	4/11/1994	LOSL	SA	LA	LD	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3044.3	3/8/1995	LOSL	UNK	LA	LD	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3044.3	3/8/1995	LOSL	SA	LA	LD	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
3044.3	4/16/1997	LOSL	SA	LA	LD	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3044.3	7/26/1999	QES	SA	LA	LD	**0.21**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3044.3	7/26/1999	QES	SA	LA	LD	NA	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
3044.3	7/15/2000	STL	SA	LA	LD	< 0.5	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
3044.3	6/19/2002	CAS_K	SA	LA	LD	< 0.5	**0.035**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
3044.3	6/18/2003	CAS-Kelso	SA	LA	LD	< 0.5	**0.05**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
3044.3	6/30/2004	CAS-Kelso	SA	LA	LD	< 0.5	< 0.02	< 0.02	**0.023**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
3044.3	7/21/2005	CAS-Kelso	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3044.3	10/24/2006	CAS-Kelso	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3044.3	9/14/2007	CAS-Kelso	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3044.3	9/15/2008	CAS-Kelso	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3044.3	9/15/2008	CAS-Kelso	FD	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3044.3	9/18/2008	LOSL	SS	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3044.3	9/21/2009	LOSL	SS	LA	LD	< 3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3044.3	9/21/2009	CAS	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3044.3	9/21/2009	CAS	FD	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3044.3	9/6/2010	CAS	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5
3044.3	9/15/2012	CAS	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5
3044.3	9/16/2013	ALS	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.41**
3044.3	9/22/2014	ALS	SA	LA	LD	**0.97**	**0.036**	< 0.02	**0.0092**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.3**
3044.3	7/25/2015	ALS	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.32**
3044.3	8/26/2016	ALS	SA	LA	LD	**0.12**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.28**
3045.1	9/28/2007	CAS-Kelso	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
3045.1	10/1/2008	CAS-Kelso	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3045.1	10/21/2009	CAS	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3045.1	11/10/2009	CAS	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3046.1	4/20/2008	CAS-Kelso	SA	UA	US	< 0.5	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3046.1	4/20/2008	CAS-Kelso	SA	UA	US	< 1	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.5	< 0.5	**0.11**
3046.1	9/16/2008	CAS-Kelso	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3047.1	12/30/2005	CAS-Kelso	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3047.1	10/24/2006	CAS-Kelso	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3047.1	9/15/2007	CAS-Kelso	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3047.1	4/19/2008	CAS-Kelso	SA	UA	US	< 0.5	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3047.1	4/19/2008	CAS-Kelso	SA	UA	US	< 1	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.5	**0.11**	< 0.5
3047.1	9/15/2008	CAS-Kelso	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3047.1	9/22/2009	CAS	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3047.1	9/22/2009	CAS	FD	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3047.1	9/6/2010	CAS	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5
3047.1	9/14/2012	CAS	SA	UA	US	**0.89**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5
3047.1	9/18/2013	ALS	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.3**
3047.1	9/22/2014	ALS	SA	UA	US	< 0.5	**0.01**	< 0.02	**0.0043**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	< 0.5
3047.1	7/24/2015	ALS	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5
3047.1	8/26/2016	ALS	SA	UA	US	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	< 0.5
3047.2	12/30/2005	CAS-Kelso	SA	LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3047.2	10/24/2006	CAS-Kelso	SA	LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3047.2	9/15/2007	CAS-Kelso	SA	LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3047.2	9/15/2008	CAS-Kelso	SA	LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3047.2	9/22/2009	CAS	SA	LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3047.2	9/6/2010	CAS	SA	LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.7**
3047.2	9/14/2012	CAS	SA	LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.6**
3047.2	9/18/2013	ALS	SA	LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.79**
3047.2	9/22/2014	ALS	SA	LA	LS	< 0.5	**0.041**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.6**
3047.2	7/24/2015	ALS	SA	LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.58**
3047.2	8/26/2016	ALS	SA	LA	LS	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.69**
3047.3	12/30/2005	CAS-Kelso	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3047.3	12/30/2005	CAS-Kelso	FD	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3047.3	10/24/2006	LOSL	SS	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3047.3	10/24/2006	CAS-Kelso	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3047.3	10/24/2006	CAS-Kelso	FD	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3047.3	9/15/2007	CAS-Kelso	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3047.3	9/15/2008	CAS-Kelso	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3047.3	9/22/2009	CAS	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3047.3	9/6/2010	LOSL	SS	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
3047.3	9/6/2010	CAS	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.7**
3047.3	9/6/2010	CAS	FD	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.6**
3047.3	9/14/2012	CAS	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.6**
3047.3	9/18/2013	ALS	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.75**
3047.3	9/22/2014	ALS	SA	LA	LD	< 0.5	**0.024**	**0.0052**	< 0.02	< 0.02	**0.0042**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.6**
3047.3	7/24/2015	ALS	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.59**
3047.3	8/26/2016	ALS	SA	LA	LD	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.49**
3048.1	8/13/2010	CAS	SA	UA	UM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5	NA	NA
3048.1	8/15/2010	CAS	SA	UA	UM	< 0.5	< 0.2	**1.3**	**0.045**	**0.062**	**0.38**	**0.049**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.5**
3048.1	11/21/2010	CAS	SA	UA	UM	< 0.5	**0.15**	< 0.021	< 0.021	< 0.021	< 0.026	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	**0.6**	**1.3**
3048.1	3/21/2011	CAS	SA	UA	UM	< 0.5	**0.11**	**0.041**	< 0.02	< 0.02	< 0.04	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
3048.1	9/17/2011	CAS	SA	UA	UM	< 0.5	**0.24**	**1.8**	**0.022**	**0.027**	**0.38**	**0.035**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	NA	**0.5**
3048.1	12/10/2011	CAS	SA	UA	UM	< 0.5	**0.026**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	< 0.5	NA
3048.1	9/14/2012	CAS	SA	UA	UM	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**4.4**
3048.1	9/18/2013	ALS	SA	UA	UM	< 0.5	**0.043**	**0.0075**	**0.027**	**0.035**	**0.064**	**0.048**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**1.63**
3048.1	7/24/2015	ALS	SA	UA	UM	< 0.5	**0.028**	**0.026**	**0.019**	< 0.02	**0.059**	**0.025**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.65**
3048.1	9/5/2016	ALS	SA	UA	UM	**0.077**	< 0.02	< 0.02	< 0.022	< 0.02	< 0.054	**0.028**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.69**
3048.2	8/15/2010	CAS	SA	UA	UD	< 0.5	< 0.034	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**1.5**
3048.2	11/21/2010	CAS	SA	UA	UD	< 0.5	**0.081**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	**2.7**	**2.8**
3048.2	3/21/2011	CAS	SA	UA	UD	< 0.5	**0.051**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**1.1**
3048.2	9/17/2011	CAS	SA	UA	UD	< 0.5	**0.03**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	NA	**1.1**
3048.2	12/10/2011	CAS	SA	UA	UD	< 0.5	**0.021**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	**0.8**	NA
3048.2	9/14/2012	CAS	SA	UA	UD	< 0.5	**0.057**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**0.6**
3048.2	9/18/2013	ALS	SA	UA	UD	< 0.5	**0.046**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	NA	NA	**0.93**
3048.2	7/24/2015	ALS	SA	UA	UD	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.9**
3048.2	9/5/2016	ALS	SA	UA	UD	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.51**
3049.1	8/16/2010	CAS	SA	UA	US	< 0.5	< 0.035	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**2.2**
3049.1	11/28/2010	CAS	SA	UA	US	< 0.5	**0.11**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	**21.7**	**22.5**
3049.1	3/21/2011	CAS	SA	UA	US	< 0.5	**0.07**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**1.6**
3049.1	9/12/2011	CAS	SA	UA	US	< 0.5	**0.048**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	NA	**2.2**
3049.1	12/10/2011	CAS	SA	UA	US	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	**1.9**	NA
3049.1	9/17/2012	CAS	SA	UA	US	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**1.5**
3049.1	9/17/2012	CAS	FD	UA	US	< 0.5	**0.11**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**1.6**
3049.1	9/17/2013	ALS	SA	UA	US	< 0.5	**0.054**	**0.017**	**0.0088**	< 0.02	**0.0051**	**0.022**	**0.0059**	< 0.02	< 0.02	**0.004**	**0.0039**	**0.0045**	**0.0067**	NA	NA	**1.9**
3049.1	9/17/2013	ALS	FD	UA	US	< 0.5	**0.098**	**0.017**	**0.0086**	< 0.02	**0.0043**	**0.02**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**1.91**
3049.1	7/29/2015	ALS	SA	UA	US	< 0.5	< 0.02	**0.02**	< 0.02	< 0.02	< 0.02	**0.017**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**1.73**
3049.1	7/29/2015	ALS	FD	UA	US	< 0.5	< 0.02	**0.021**	< 0.02	< 0.02	< 0.02	**0.018**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**1.78**
3049.1	9/20/2016	ALS	SA	UA	US	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.017**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**3.21**
3049.2	8/16/2010	CAS	SA	UA	UM	< 0.5	< 0.033	**0.045**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	NA	**21.6**
3049.2	9/29/2010	CAS	SA	UA	UM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**16.7**	**17**

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
3049.2	11/28/2010	CAS	SA	UA	UM	< 0.5	**0.18**	**0.046**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	**21.6**	**24.6**
3049.2	3/22/2011	CAS	SA	UA	UM	< 0.5	**0.095**	**0.045**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**25.6**
3049.2	9/12/2011	CAS	SA	UA	UM	< 0.5	**0.054**	**0.041**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**22.9**
3049.2	12/10/2011	CAS	SA	UA	UM	< 0.5	**0.26**	**0.039**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	**28**	NA
3049.2	9/17/2012	CAS	SA	UA	UM	< 0.5	**0.065**	**0.037**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**31.5**
3049.2	9/17/2013	ALS	SA	UA	UM	< 0.5	**0.037**	**0.06**	**0.0083**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**24.9**
3049.2	7/29/2015	ALS	SA	UA	UM	< 0.5	**0.0097**	**0.051**	**0.0083**	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	NA	NA	**27.2**
3049.2	9/20/2016	ALS	SA	UA	UM	**0.15**	< 0.02	< 0.031	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**20.5**
3049.3	8/16/2010	CAS	SA	UA	UD	< 0.5	< 0.055	**0.05**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**17.6**
3049.3	8/16/2010	CAS	FD	UA	UD	< 0.5	< 0.05	**0.042**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	NA	**17.5**
3049.3	9/29/2010	CAS	SA	UA	UD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**20.1**	**20.1**
3049.3	9/29/2010	CAS	FD	UA	UD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**19.9**	**20.2**
3049.3	11/28/2010	CAS	SA	UA	UD	< 0.5	**0.21**	**0.056**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	**2.4**	**2.3**
3049.3	3/22/2011	CAS	SA	UA	UD	< 0.5	**0.1**	**0.051**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**20.4**
3049.3	9/12/2011	CAS	SA	UA	UD	< 0.5	**0.071**	**0.031**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	NA	**22.1**
3049.3	12/12/2011	CAS	SA	UA	UD	< 0.5	**0.25**	**0.045**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	**20.6**	NA
3049.3	9/17/2012	CAS	SA	UA	UD	< 0.5	**0.085**	**0.038**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	NA	**19.7**
3049.3	9/17/2013	ALS	SA	UA	UD	< 0.5	**0.093**	**0.053**	**0.007**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**22.5**
3049.3	7/27/2015	ALS	SA	UA	UD	**0.4**	**0.0083**	**0.045**	**0.013**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**24.2**
3049.3	9/20/2016	ALS	SA	UA	UD	< 0.5	< 0.02	< 0.051	< 0.02	< 0.02	< 0.02	< 0.02	**0.0033**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**20.3**
3049.3	9/20/2016	ALS	FD	UA	UD	< 0.5	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.02	**0.0028**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**21**
3050.1	8/16/2010	CAS	SA	UA	US	< 0.5	< 0.031	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.5	NA	< 0.5
3050.1	11/17/2010	CAS	SA	UA	US	< 0.5	< 0.038	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	**0.4**	**0.6**
3050.1	3/22/2011	CAS	SA	UA	US	< 0.5	< 0.12	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
3050.1	9/19/2011	CAS	SA	UA	US	< 0.5	**0.047**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	NA	**0.5**
3050.1	12/13/2011	CAS	SA	UA	US	< 0.5	**0.042**	< 0.02	**0.021**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	**0.5**	NA
3050.1	9/18/2012	CAS	SA	UA	US	< 0.5	**0.078**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**0.6**
3050.1	9/27/2013	ALS	SA	UA	US	< 0.5	**0.096**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	**0.0032**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	NA	NA	**0.52**
3050.1	8/4/2015	ALS	SA	UA	US	< 0.5	**0.066**	< 0.02	**0.0048**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.52**
3050.1	9/20/2016	ALS	SA	UA	US	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.43**
3050.2	8/16/2010	CAS	SA	UA	US	< 0.5	< 0.032	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
3050.2	11/17/2010	CAS	SA	UA	US	< 0.5	< 0.083	< 0.02	**0.023**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	**0.3**	**0.4**
3050.2	3/22/2011	CAS	SA	UA	US	< 0.5	< 0.12	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
3050.2	9/19/2011	CAS	SA	UA	US	< 0.5	**0.05**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
3050.2	12/13/2011	CAS	SA	UA	US	< 0.5	**0.038**	< 0.02	**0.034**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	< 0.5	NA
3050.2	9/18/2012	CAS	SA	UA	US	< 0.5	**0.056**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
3050.2	9/27/2013	ALS	SA	UA	US	**0.26**	**0.03**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.0029**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.47**
3050.2	8/4/2015	ALS	SA	UA	US	< 0.5	**0.032**	< 0.02	**0.0053**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.34**
3050.2	9/20/2016	ALS	SA	UA	US	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.48**
3050.3	8/16/2010	CAS	SA	UA/IZ	UD	**1.9**	< 0.097	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
3050.3	11/17/2010	CAS	SA	UA/IZ	UD	< 0.5	< 0.1	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	< 0.5	**0.1**
3050.3	11/17/2010	CAS	FD	UA/IZ	UD	< 0.5	< 0.1	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	**0.1**	**0.1**
3050.3	3/22/2011	CAS	SA	UA/IZ	UD	< 0.5	< 0.15	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
3050.3	3/22/2011	CAS	FD	UA/IZ	UD	< 0.5	< 0.17	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
3050.3	9/19/2011	CAS	SA	UA/IZ	UD	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
3050.3	9/19/2011	LOSL	SA	UA/IZ	UD	**0.82**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3050.3	9/19/2011	CAS	FD	UA/IZ	UD	< 0.5	**0.035**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
3050.3	12/13/2011	CAS	SA	UA/IZ	UD	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	< 0.5	NA
3050.3	12/13/2011	CAS	FD	UA/IZ	UD	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	< 0.5	NA
3050.3	9/18/2012	CAS	SA	UA/IZ	UD	< 0.5	< 0.094	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
3050.3	9/18/2012	CAS	FD	UA/IZ	UD	< 0.5	< 0.14	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
3050.3	9/27/2013	ALS	SA	UA/IZ	UD	< 0.5	**0.049**	< 0.021	**0.011**	< 0.021	< 0.021	< 0.021	**0.0036**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	NA	NA	**0.23**
3050.3	9/27/2013	ALS	FD	UA/IZ	UD	< 0.5	**0.16**	**0.0047**	**0.0079**	< 0.021	< 0.021	< 0.021	**0.0033**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	NA	NA	**0.24**
3050.3	8/4/2015	ALS	SA	UA/IZ	UD	< 0.5	**0.089**	**0.01**	**0.017**	< 0.021	**0.011**	**0.0064**	**0.005**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	NA	NA	**0.26**
3050.3	8/4/2015	ALS	FD	UA/IZ	UD	< 0.5	**0.039**	**0.011**	**0.018**	< 0.02	**0.012**	**0.0068**	**0.0047**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	< 0.5
3050.3	9/20/2016	ALS	SA	UA/IZ	UD	**0.11**	< 0.14	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.21**
3051.1	9/9/2013	ALS	SA	UA	UD	NA	**20**	**90**	**0.4**	**3.5**	**7.1**	**2.6**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**2.8**	NA	**1.2**
3051.1	9/9/2013	LOSL	SA	UA	UD	**1.11**	**37.2**	**101**	**4.6**	**6.1**	**22.7**	**3.6**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
3051.1	7/30/2015	LOSL	SA	UA	UD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3051.1	7/31/2015	ALS	SA	UA	UD	< 0.5	**13**	**82**	**1.2**	**4.9**	**12**	**2.2**	**0.013**	< 0.02	< 0.02	< 0.02	**0.0057**	< 0.02	< 0.02	NA	NA	**1.67**
3051.1	8/28/2016	ALS	SA	UA	UD	< 0.5	**5.1**	**63**	**0.95**	**4**	**7.9**	**1.9**	< 0.02	< 0.02	< 0.02	< 0.02	**0.0044**	< 0.02	< 0.02	NA	NA	**1.36**
3061.1	9/28/2016	ALS	SA	UA	US	**0.68**	**350**	**90**	**6.5**	**8.9**	**48**	**6.6**	**1.2**	**0.37**	**0.54**	**0.26**	**1.4**	**0.04**	**0.14**	NA	NA	**18.7**
3061.2	10/18/2016	ALS	SA	UA	UD	**780**	**8200**	**250**	**33**	**57**	**110**	**36**	**8.6**	**3.9**	**6**	**2.2**	**9.4**	**0.42**	**1.4**	NA	NA	**0.61**
3061.3	9/28/2016	ALS	SA	UA	UD	**1300**	**3600**	**150**	**17**	**6.7**	**96**	**4.1**	**0.34**	**0.082**	**0.11**	**0.045**	**0.39**	**0.007**	**0.023**	NA	NA	**6.18**
3062.1	9/27/2016	ALS	SA	UA	US	**3**	**980**	**100**	**3**	**1.5**	**46**	**0.89**	**0.053**	**0.012**	**0.018**	**0.0081**	**0.051**	< 0.02	**0.005**	NA	NA	**44.8**
3062.2	9/28/2016	ALS	SA	UA	UM	< 0.5	< 0.028	< 0.15	< 0.02	**0.039**	< 0.023	**0.099**	**0.0055**	< 0.02	< 0.02	< 0.02	**0.0046**	< 0.02	< 0.02	NA	NA	**0.54**
3062.3	9/27/2016	ALS	SA	UA	UD	**1.5**	**18**	**34**	**3.2**	**2.1**	**32**	**0.86**	**0.027**	**0.0047**	**0.015**	**0.0052**	**0.047**	< 0.02	**0.0028**	NA	NA	**5.07**
3063.1	9/27/2016	ALS	SA	UA	US	< 0.5	< 0.97	**4**	< 0.02	**0.41**	**0.57**	**0.63**	**0.01**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**6.82**
3063.2	9/27/2016	ALS	SA	UA	UM	< 0.5	< 0.069	< 0.021	< 0.021	< 0.021	< 0.021	**0.0062**	**0.0052**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	NA	NA	**0.12**
3063.3	9/27/2016	ALS	SA	UA	UD	**16**	< 0.26	< 0.047	**0.068**	**0.032**	< 0.63	**0.012**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.86**
3070.1	11/5/1991	LOSL	SA			< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	NA	NA	NA
5003.1	10/2/1989	CAL	SA	UA		**8900**	**49000**	< 26000	**1000**	**1700**	**2900**	**1600**	**200**	< 130	**70**	< 52	< 1300	< 52	< 13	NA	NA	NA
5512.1	8/2/2011	CAS	SA	UA	US	**4800**	**4900**	**110**	< 11	< 5	**39**	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	NA	**11.4**
5512.1	8/3/2011	CAS	FD	UA	US	**5400**	**4500**	**110**	< 20	< 20	**44**	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 10	NA	**11.7**
5512.1	9/24/2012	CAS	SA	UA	US	**2900**	**4600**	**120**	**8.6**	**3.3**	**54**	**2.5**	**0.24**	**0.064**	**0.098**	**0.036**	**0.25**	< 0.02	< 0.02	< 25	NA	**18**
5512.1	9/28/2013	ALS	SA	UA	US	**4200**	**630**	**79**	**8.4**	**3.8**	**37**	**2.5**	**0.18**	**0.042**	**0.056**	**0.021**	**0.18**	**0.0049**	**0.018**	NA	NA	**12.9**
5512.1	8/4/2015	ALS	SA	UA	US	**1800**	**250**	**76**	**7.2**	**3.9**	**28**	**2.4**	**0.36**	**0.19**	**0.21**	**0.1**	**0.37**	**0.051**	**0.097**	NA	NA	**14.5**
5512.1	9/23/2016	ALS	SA	UA	US	**3600**	**1800**	**80**	**3.3**	**2.2**	**31**	**1.5**	**0.23**	< 0.99	< 0.99	< 0.99	< 0.99	< 0.99	< 0.99	NA	NA	**14.9**
5512.1	9/23/2016	ALS	FD	UA	US	**3300**	**2200**	**80**	**3.8**	**3**	**31**	**2.1**	**0.33**	< 0.99	< 0.99	< 0.99	< 0.99	< 0.99	< 0.99	NA	NA	**14.8**
5512.2	8/2/2011	CAS	SA	UA	UM	**6400**	**12000**	**200**	< 16	< 4.8	**58**	< 4.8	< 4.8	< 4.8	< 4.8	< 4.8	< 4.8	< 4.8	< 4.8	< 25	NA	**2.6**

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LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
5512.2	1/4/2012	CAS	SA	UA	UM	6100	12000	110	15	5.4	43	4.2	0.43	0.15	0.19	0.075	0.48	< 0.02	0.049	< 10	1.8	NA
5512.2	9/24/2012	CAS	SA	UA	UM	8400	11000	180	18	9.7	68	6.7	0.87	0.31	0.4	0.16	0.79	0.027	0.1	< 50	NA	1.7
5512.2	9/28/2013	ALS	SA	UA	UM	8000	14000	230	19	8.1	76	4.7	0.33	0.076	0.093	0.036	0.37	0.007	0.024	NA	NA	1.75
5512.2	8/4/2015	ALS	SA	UA	UM	7700	14000	230	20	14	73	6.4	0.91	0.36	0.49	0.18	1.1	0.042	0.14	NA	NA	1.04
5512.2	9/23/2016	ALS	SA	UA	UM	8400	11000	180	9.3	6.3	54	4.4	0.5	< 0.95	< 0.95	< 0.95	0.44	< 0.95	< 0.95	NA	NA	1.04
5512.3	1/4/2012	CAS	SA	UA	UD	6400	12000	170	22	11	70	7.8	1.6	0.56	0.75	0.29	1.7	0.054	0.19	< 10	1	NA
5512.3	9/24/2012	CAS	SA	UA	UD	9600	11000	140	17	9	53	6	0.98	0.33	0.5	0.16	1	0.03	0.11	< 50	NA	1
5512.3	9/27/2013	ALS	SA	UA	UD	9300	12000	170	30	24	79	19	3.5	1.2	1.5	0.66	3.7	0.13	0.43	NA	NA	1.46
5512.3	8/4/2015	ALS	SA	UA	UD	8100	16000	260	100	160	160	140	56	21	30	12	65	2.2	6.5	NA	NA	1.23
5512.3	9/23/2016	ALS	SA	UA	UD	7400	15000	410	120	190	220	140	33	11	16	8.2	41	0.8	4.2	NA	NA	1.07
5513.1	8/2/2011	CAS	SA	UA	US	5100	2600	77	< 6.1	< 2	26	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	6.2	NA	17.3
5513.1	1/4/2012	CAS	SA	UA	US	1900	< 4.9	12	1	1.7	< 0.61	1.3	0.37	0.42	0.55	0.19	0.32	0.04	0.18	2.8	8	NA
5513.1	9/22/2012	CAS	SA	UA	US	320	0.28	32	1.9	1.5	7	0.99	0.13	0.18	0.2	0.069	0.13	< 0.02	0.091	< 2.5	NA	9.8
5513.1	9/27/2013	ALS	SA	UA	US	2900	2.1	8.4	1.8	1.3	< 0.7	0.93	0.12	0.16	0.17	0.061	0.11	0.024	0.099	NA	NA	12.3
5513.1	9/7/2015	ALS	SA	UA	US	2600	< 6.7	8.1	1	2.4	0.15	2.9	0.23	0.19	0.21	0.083	0.19	0.018	0.088	NA	NA	14.9
5513.1	9/24/2016	ALS	SA	UA	US	2900	3100	85	3.4	3.3	29	2.3	0.48	< 0.99	0.23	< 0.99	0.35	< 0.99	< 0.99	NA	NA	6.62
5513.2	8/2/2011	CAS	SA	UA	UM	10000	10000	200	< 20	5.3	66	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 25	NA	2.7
5513.2	1/3/2012	CAS	SA	UA	UM	8700	12000	110	16	5.7	45	3.2	0.13	< 0.021	< 0.021	< 0.021	0.14	< 0.021	< 0.021	11	1	NA
5513.2	9/22/2012	CAS	SA	UA	UM	12000	11000	92	13	5.4	35	3.3	0.15	< 0.02	< 0.02	< 0.02	0.15	< 0.02	< 0.02	< 25	NA	0.8
5513.2	9/27/2013	ALS	SA	UA	UM	15000	12000	100	17	7.7	39	4.3	0.2	0.013	0.018	0.0061	0.23	< 0.02	0.0027	NA	NA	0.85
5513.2	9/7/2015	ALS	SA	UA	UM	8700	5300	380	100	250	200	200	44	16	21	7.9	47	1.5	5.7	NA	NA	7.09
5513.2	9/24/2016	ALS	SA	UA	UM	9600	3800	130	17	36	53	26	5.1	1.6	2.5	1.2	5.3	0.16	0.55	NA	NA	6.8
5513.2	9/24/2016	ALS	FD	UA	UM	9700	3800	140	17	35	55	25	4.4	1.4	2.2	1	5	< 0.99	0.61	NA	NA	7.18
5513.3	8/2/2011	CAS	SA	UA	UD	8700	13000	250	< 22	6.3	82	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 25	NA	1.5
5513.3	1/3/2012	CAS	SA	UA	UD	6900	11000	180	22	12	71	6.4	1.3	0.35	0.51	0.2	1.1	0.032	0.1	16	0.5	NA
5513.3	9/24/2012	CAS	SA	UA	UD	21000	11000	200	22	11	75	6.9	0.87	0.27	0.39	0.16	0.93	0.021	0.08	< 50	NA	0.7
5513.3	9/27/2013	ALS	SA	UA	UD	14000	12000	200	30	22	90	16	2.4	0.72	0.91	0.41	2.4	0.059	0.23	NA	NA	0.75
5513.3	9/7/2015	ALS	SA	UA	UD	8400	36000	4300	1700	3100	2800	2300	540	170	230	84	580	15	54	NA	NA	2.49
5513.3	9/24/2016	ALS	SA	UA	UD	9900	2100	2200	720	1400	1400	990	210	62	100	44	230	4.7	21	NA	NA	3.33
6001.1	6/28/1987	CAL	SA	UA	UM	NA	140	< 20	< 0.7	< 0.2	15	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	1.3	NA	NA
6001.1	9/23/1987	CAL	UNK	UA	UM	NA	< 200	< 20	< 7	< 2	16	< 3	< 0.8	< 0.5	< 0.2	< 0.2	< 2	< 2	< 2	NA	NA	NA
6001.1	9/23/1987	CHA	SSFD	UA	UM	NA	72	18	< 1	< 1	6	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	NA
6001.1	9/23/1987	CAL	SS	UA	UM	NA	< 200	< 200	< 7	< 2	18	< 3	< 0.8	< 0.5	< 0.2	< 0.2	< 2	< 2	< 2	NA	NA	NA
6001.1	9/23/1987	CHA	SS	UA	UM	NA	56.3	< 25	< 25	< 25	< 25	< 50	< 25	< 50	< 50	< 50	< 25	< 50	< 50	NA	NA	NA
6001.1	12/6/1987	CAL	SS	UA	UM	NA	110	< 200	< 0.7	0.34	14	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
6001.1	12/6/1987	CAL	SA	UA	UM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	15	NA	NA
6001.1	12/6/1987	CHA	SA	UA	UM	< 0.9	105	27	< 0.9	< 0.9	10	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	NA	NA	NA
6001.1	4/12/1988	CAL	SS	UA	UM	NA	110	< 200	< 7	< 2	18	< 3	< 0.8	< 0.5	< 0.2	< 0.2	< 2	< 2	< 2	NA	NA	NA
6001.1	12/3/1991	CAL	SA	UA	UM	< 0.5	< 200	< 200	< 0.7	0.35	< 5.4	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
6001.1	12/3/1991	LOSL	SA	UA	UM	< 3	15	13	< 3	< 3	5	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA

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LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
6001.1	7/2/1992	LOSL	SA	UA	UM	< 3	**4**	**9**	< 3	< 3	**4**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6001.1	7/2/1992	LOSL	FD	UA	UM	< 3	**8**	**17**	< 3	NA	**7**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6001.1	3/15/1993	LOSL	SA	UA	UM	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	**3**	< 3	< 3	< 3	< 3	NA	NA	NA
6001.1	3/10/1994	LOSL	SA	UA	UM	**4.8**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6001.1	3/3/1995	LOSL	SA	UA	UM	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6001.1	3/15/1996	LOSL	SA	UA	UM	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
6001.1	4/8/1997	LOSL	SA	UA	UM	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6001.1	7/30/1998	LOSL	SA	UA	UM	**6.9**	**7**	**27**	**14**	< 3	**9**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6001.1	7/29/1999	LOSL	SA	UA	UM	**7.8**	< 3.4	**15.4**	**6.6**	< 3.4	**5.8**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6001.1	7/21/2000	LOSL	SA	UA	UM	< 3.4	< 3.4	**4.7**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6001.1	9/1/2001	LOSL	SS	UA	UM	< 0.5	**13.5**	**27**	< 3.5	< 3.5	**12.7**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
6001.1	6/25/2002	LOSL	SA	UA	UM	< 0.5	< 3.5	**6.1**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
6001.1	6/27/2003	LOSL	SS	UA	UM	< 0.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
6001.1	12/8/2003	CAS-Kelso	SA	UA	UM	< 0.5	**0.37**	**2.7**	**0.018**	**0.083**	**0.46**	**0.062**	< 0.02	< 0.02	< 0.02	< 0.02	**0.0022**	< 0.02	< 0.02	NA	NA	NA
6001.1	7/2/2004	LOSL	SA	UA	UM	**0.94**	< 3.5	**3.5**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
6001.1	7/2/2004	LOSL	SA	UA	UM	< 3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6001.1	11/19/2004	CAS-Kelso	SA	UA	UM	< 0.5	**2.7**	**8.9**	**0.13**	**0.37**	**2.7**	**0.21**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
6001.1	7/27/2005	LOSL	SS	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6001.1	7/27/2005	CAS-Kelso	SA	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6001.1	7/27/2005	CAS-Kelso	FD	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6001.1	10/24/2006	CAS-Kelso	SA	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6001.1	9/19/2007	CAS-Kelso	SA	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6001.1	4/28/2008	CAS-Kelso	SA	UA	UM	NA	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6001.1	4/28/2008	CAS-Kelso	SA	UA	UM	< 0.98	< 0.46	**6**	< 0.2	< 0.2	**0.22**	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	**0.18**	**1.02**	**4.15**
6001.1	9/24/2008	CAS-Kelso	SA	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6001.1	9/23/2009	CAS	SA	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6001.1	9/7/2010	CAS	SA	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**4**
6001.1	9/22/2012	CAS	SA	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**3.6**
6001.1	9/20/2013	ALS	SA	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**4.13**
6001.1	9/23/2014	ALS	SA	UA	UM	< 0.5	< 0.52	**7.8**	**0.081**	**0.37**	< 0.14	**0.19**	**0.0071**	< 0.02	< 0.02	< 0.02	**0.0043**	< 0.02	< 0.02	NA	NA	**4.14**
6001.1	8/2/2015	ALS	SA	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**4.12**
6001.1	9/23/2016	ALS	SA	UA	UM	**0.18**	< 0.18	**6.7**	**0.075**	**0.36**	< 0.12	**0.18**	**0.0063**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**4.23**
6001.2	6/28/1987	CHA	SS	IZ/LA	LS	< 0.2	**0.9**	< 1	< 0.05	NA	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6001.2	6/28/1987	CAL	SA	IZ/LA	LS	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	< 0.5	NA	NA
6001.2	6/28/1987	CHA	SA	IZ/LA	LS	< 0.2	**0.9**	< 1	< 0.05	< 0.5	< 0.5	**0.11**	< 0.1	**0.13**	< 0.1	< 0.1	< 0.05	< 0.1	< 0.1	< 1	NA	NA
6001.2	12/6/1987	CAL	SA	IZ/LA	LS	**1.9**	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	**0.043**	**0.026**	< 0.2	< 0.2	< 0.2	**1.5**	NA	NA
6001.2	12/3/1991	LOSL	SS	IZ/LA	LS	< 3	< 3	< 3	< 3	NA	< 3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6001.2	12/3/1991	CAL	SA	IZ/LA	LS	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
6001.2	12/3/1991	LOSL	SA	IZ/LA	LS	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6001.2	1/29/1992	CAL	SA	IZ/LA	LS	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
6001.2	5/18/1992	LOSL	SA	IZ/LA	LS	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6001.2	8/25/1992	LOSL	SA	IZ/LA	LS	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6001.2	10/22/1992	LOSL	UNK	IZ/LA	LS	< 4	< 4	< 4	< 4	NA	< 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6001.2	10/22/1992	LOSL	SS	IZ/LA	LS	< 3	< 3	< 3	< 3	NA	< 3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6001.2	10/22/1992	CAL	SA	IZ/LA	LS	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
6001.2	10/22/1992	LOSL	SA	IZ/LA	LS	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6001.2	3/16/1994	LOSL	SA	IZ/LA	LS	**4.3**	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	NA	NA	NA
6001.2	3/3/1995	LOSL	SA	IZ/LA	LS	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6001.2	3/15/1996	LOSL	SA	IZ/LA	LS	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6001.2	4/16/1997	LOSL	SA	IZ/LA	LS	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
6001.2	7/30/1998	LOSL	SA	IZ/LA	LS	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6001.2	4/28/1999	LOSL	SA	IZ/LA	LS	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6001.2	7/27/1999	LOSL	SA	IZ/LA	LS	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6001.2	7/21/2000	STL	SA	IZ/LA	LS	< 0.5	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
6001.2	8/27/2001	STL	SA	IZ/LA	LS	**0.65**	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
6001.2	6/24/2002	CAS_K	SA	IZ/LA	LS	< 0.5	**0.098**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	NA	NA	NA
6001.2	6/24/2002	CAS_K	SA	IZ/LA	LS	< 0.49	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6001.2	6/18/2003	CAS-Kelso	SA	IZ/LA	LS	**0.98**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
6001.2	7/5/2004	CAS-Kelso	SA	IZ/LA	LS	< 0.5	**0.074**	**0.025**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
6001.2	7/27/2005	CAS-Kelso	SA	IZ/LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6001.2	10/24/2006	CAS-Kelso	SA	IZ/LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6001.2	9/19/2007	CAS-Kelso	SA	IZ/LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6001.2	9/24/2008	LOSL	SS	IZ/LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6001.2	9/24/2008	CAS-Kelso	SA	IZ/LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6001.2	9/24/2008	CAS-Kelso	FD	IZ/LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6001.2	9/28/2009	CAS	SA	IZ/LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6001.2	9/7/2010	CAS	SA	IZ/LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**1.1**
6001.2	9/22/2012	CAS	SA	IZ/LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**1**
6001.2	9/20/2013	ALS	SA	IZ/LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.83**
6001.2	9/23/2014	ALS	SA	IZ/LA	LS	< 0.5	< 0.37	< 0.02	< 0.02	**0.032**	< 0.02	**0.026**	**0.007**	< 0.02	< 0.02	< 0.02	**0.0063**	< 0.02	< 0.02	NA	NA	**1**
6001.2	8/2/2015	ALS	SA	IZ/LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**1.31**
6001.2	9/23/2016	ALS	SA	IZ/LA	LS	**0.099**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.0053**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**1.76**
6002.1	6/28/1987	CHA	SS	UA	US	NA	< 0.5	< 1	< 0.05	< 0.5	< 0.5	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05	< 0.1	< 0.1	NA	NA	NA
6002.1	6/28/1987	CAL	SA	UA	US	**2.2**	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	< 0.5	NA	NA
6002.1	6/28/1987	CHA	SA	UA	US	NA	< 0.5	< 1	< 0.05	< 0.5	< 0.5	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05	< 0.1	< 0.1	NA	NA	NA
6002.1	9/23/1987	CAL	UNK	UA	US	NA	< 1	< 1	< 0.5	NA	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6002.1	9/23/1987	CAL	SS	UA	US	NA	< 1	< 1	< 1	NA	< 1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6002.1	9/23/1987	CAL	SS	UA	US	NA	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	NA	NA	NA	NA
6002.1	12/7/1987	CAL	SS	UA	US	**1.5**	< 20	< 2	< 0.7	**0.44**	**0.32**	**0.44**	< 0.08	< 0.05	< 0.02	< 0.02	< 20	< 0.2	< 0.2	NA	NA	NA
6002.1	12/7/1987	CAL	SA	UA	US	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5	NA	NA

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
6002.1	12/7/1987	CHA	SA	UA	US	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	NA	NA	NA
6002.1	4/12/1988	CAL	SS	UA	US	NA	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
6002.1	4/12/1988	CAL	SS	UA	US	NA	< 2	< 5	< 0.7	NA	< 0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6002.1	12/12/1991	LOSL	SA	UA	US	**9**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6002.1	1/31/1992	LOSL	SA	UA	US	**7**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6002.1	5/11/1992	LOSL	SSFD	UA	US	< 3	< 3	< 3	< 3	NA	< 3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6002.1	5/11/1992	LOSL	SS	UA	US	< 3	< 3	< 3	< 3	NA	< 3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6002.1	5/11/1992	CAL	SA	UA	US	**0.7**	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
6002.1	5/11/1992	CAL	SA	UA	US	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5	NA	NA
6002.1	5/11/1992	LOSL	SA	UA	US	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6002.1	3/25/1993	CAL	SA	UA	US	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
6002.1	3/8/1994	CAL	SA	UA	US	**0.61**	< 2	< 2	< 0.7	< 0.2	< 0.4	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
6002.1	3/13/1995	QES	SA	UA	US	**1.6**	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
6002.1	3/19/1996	QES	SA	UA	US	**0.76**	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
6002.1	4/14/1997	QES	SA	UA	US	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
6002.1	8/4/1998	QES	SA	UA	US	< 0.5	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
6002.1	7/27/1999	QES	SA	UA	US	**0.51**	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
6002.1	7/22/2000	STL	SA	UA	US	< 0.5	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
6002.1	8/27/2001	STL	SA	UA	US	< 0.5	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
6002.1	6/19/2002	CAS_K	SA	UA	US	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
6002.1	6/26/2003	CAS-Kelso	SA	UA	US	< 0.5	**0.37**	**0.027**	< 0.02	**0.022**	< 0.02	**0.021**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
6002.1	7/5/2004	CAS-Kelso	SA	UA	US	< 0.5	**0.098**	< 0.02	**0.023**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
6002.1	7/27/2005	CAS-Kelso	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6002.1	11/10/2006	CAS-Kelso	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6002.1	9/26/2007	CAS-Kelso	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6002.1	4/26/2008	CAS-Kelso	SA	UA	US	< 0.5	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6002.1	4/26/2008	CAS-Kelso	SA	UA	US	< 1	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.5	**0.1**	**0.13**
6002.1	9/30/2008	CAS-Kelso	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6002.1	9/14/2009	CAS	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6002.1	9/8/2010	CAS	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5
6002.1	9/12/2012	CAS	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5
6002.1	9/24/2013	ALS	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5
6002.1	9/23/2014	ALS	SA	UA	US	< 0.5	**0.036**	< 0.02	**0.013**	< 0.02	< 0.02	< 0.02	**0.0028**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.15**
6002.1	9/23/2014	ALS	FD	UA	US	< 0.5	**0.048**	< 0.02	**0.012**	< 0.02	< 0.02	< 0.02	**0.0028**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.15**
6002.1	8/1/2015	ALS	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.2**
6002.1	8/27/2016	ALS	SA	UA	US	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.01**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**1.55**
6002.2	6/30/1987	CAL	SA	LA	LS	**1700**	< 200	< 200	< 0.7	< 0.2	**7.8**	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 20	< 0.2	< 0.2	**7.2**	NA	NA
6002.2	12/7/1987	CHA	UNK	LA	LS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1	NA	NA
6002.2	12/7/1987	CAL	SSFD	LA	LS	NA	< 20	< 20	< 0.7	**0.29**	**7.2**	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
6002.2	12/7/1987	CAL	SS	LA	LS	**1500**	< 20	< 20	< 0.7	**0.2**	**8.1**	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
6002.2	12/7/1987	CAL	SA	LA	LS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**7.2**	NA	NA
6002.2	12/7/1987	CHA	SA	LA	LS	< 0.9	**3**	**3**	< 0.9	< 0.9	**6**	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	NA	NA	NA
6002.2	12/15/1991	LOSL	SA	LA	LS	**672**	**3**	**8**	< 3	< 3	**9**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6002.2	1/31/1992	LOSL	SA	LA	LS	**1404**	**50**	**11**	< 3	< 3	**16**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6002.2	5/12/1992	LOSL	UNK	LA	LS	**694**	**5**	**10**	< 3	< 3	**16**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6002.2	5/12/1992	LOSL	SA	LA	LS	**615**	**4**	**8**	< 3	< 3	**14**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6002.2	8/11/1992	LOSL	SA	LA	LS	**743**	< 32	< 32	< 32	< 32	< 32	< 32	< 32	< 32	< 32	< 32	< 32	< 32	< 32	NA	NA	NA
6002.2	10/22/1992	LOSL	SA	LA	LS	**715**	**3**	**7**	< 3	< 3	**12**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6002.2	3/14/1994	LOSL	SA	LA	LS	**361.5**	< 33.7	< 33.7	< 33.7	< 33.7	< 33.7	< 33.7	< 33.7	< 33.7	< 33.7	< 33.7	< 33.7	< 33.7	< 33.7	NA	NA	NA
6002.2	3/10/1995	LOSL	SA	LA	LS	**682.5**	**5.3**	**11.6**	< 3.4	< 3.4	**14.4**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6002.2	3/13/1995	QES	SA	LA	LS	**1.6**	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
6002.2	3/19/1996	LOSL	SA	LA	LS	**603**	< 3.4	**4.5**	**18.1**	< 3.4	**6.7**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6002.2	3/19/1996	QES	SA	LA	LS	NA	**5**	**19**	< 0.7	< 0.47	**6.8**	< 0.95	< 0.47	< 0.47	< 0.19	< 0.19	< 0.47	< 1.9	< 0.47	NA	NA	NA
6002.2	4/9/1997	LOSL	SA	LA	LS	**1371**	**129.5**	**12.9**	**35.8**	< 3.5	**19.3**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
6002.2	3/30/1998	LOSL	SA	LA	LS	**1653.5**	< 3.4	**11.3**	**12.3**	< 3.4	**12**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6002.2	8/5/1998	LOSL	SA	LA	LS	**1537.8**	**6**	**22**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6002.2	4/29/1999	LOSL	SA	LA	LS	**2058.2**	**7.4**	**28.5**	< 3.4	< 3.4	**31.7**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6002.2	4/29/1999	LOSL	FD	LA	LS	**1956.9**	**8.9**	**30**	< 3.4	< 3.4	**35.2**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6002.2	8/3/1999	LOSL	SA	LA	LS	**1354.3**	**7.1**	**29.6**	**4.5**	< 3.4	**31.2**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6002.2	7/22/2000	STL	SA	LA	LS	**690**	< 1	< 2	< 0.04	< 0.1	**19**	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
6002.2	9/5/2001	STL	SA	LA	LS	**290**	< 10	< 20	< 0.4	< 1	**2.6**	< 2	< 0.8	< 0.5	**0.39**	< 0.2	< 1	< 2	< 1	NA	NA	NA
6002.2	6/26/2002	CAS_K	SA	LA	LS	**1200**	**3.8**	**10**	**0.27**	**0.85**	**11**	**0.37**	< 0.022	< 0.022	**0.03**	< 0.022	**0.048**	< 0.022	< 0.022	NA	NA	NA
6002.2	6/26/2003	CAS-Kelso	SA	LA	LS	**1300**	**4.6**	**22**	**0.37**	**1.4**	**24**	**0.65**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
6002.2	7/3/2004	CAS-Kelso	SA	LA	LS	**1300**	**4.7**	**24**	**0.46**	**1.8**	**23**	**0.76**	**0.036**	< 0.02	**0.069**	**0.058**	**0.14**	< 0.02	< 0.02	NA	NA	NA
6002.2	7/5/2004	LOSL	SS	LA	LS	NA	**4.5**	**19.9**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
6002.2	7/5/2004	LOSL	SS	LA	LS	**525.5**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6002.2	7/5/2004	CAS-Kelso	FD	LA	LS	**1300**	**3.9**	**21**	**0.39**	**1.6**	**20**	**0.7**	< 0.02	< 0.02	**0.037**	**0.032**	**0.066**	< 0.02	< 0.02	NA	NA	NA
6002.2	7/19/2005	LOSL	SA	LA	LS	**338.2**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6002.2	11/10/2006	LOSL	SS	LA	LS	**349**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6002.2	9/21/2007	LOSL	SA	LA	LS	**330.2**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6002.2	9/26/2008	LOSL	SA	LA	LS	**178**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6002.2	9/14/2009	LOSL	SS	LA	LS	**98.2**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6002.2	9/14/2009	CAS	SA	LA	LS	**110**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6002.2	9/3/2010	LOSL	SSFD	LA	LS	**69.1**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6002.2	9/4/2010	LOSL	SS	LA	LS	**57.3**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6002.2	9/4/2010	CAS	SA	LA	LS	**93**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.6**
6002.2	9/4/2010	CAS	FD	LA	LS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.6**
6002.2	9/16/2011	CAS	SA	LA	LS	**53**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6002.2	9/16/2011	LOSL	SA	LA	LS	**36.7**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6002.2	9/16/2011	LOSL	FD	LA	LS	**58**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
6002.2	9/12/2012	CAS	SA	LA	LS	NA	**3.5**	**28**	**0.58**	**1.5**	**23**	**0.69**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**3.4**	NA	**0.5**
6002.2	9/12/2012	LOSL	SA	LA	LS	**32.8**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6002.2	9/14/2013	ALS	SA	LA	LS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.69**
6002.2	9/14/2013	LOSL	SA	LA	LS	**186**	**151**	< 17.5	< 17.5	< 17.5	< 17.5	< 17.5	< 17.5	< 17.5	< 17.5	< 17.5	< 17.5	< 17.5	< 17.5	NA	NA	NA
6002.2	9/6/2014	LOSL	SA	LA	LS	**39.5**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6002.2	9/9/2014	ALS	SA	LA	LS	NA	**2.9**	**32**	**0.56**	**1.8**	**16**	**0.75**	**0.0062**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.54**
6002.2	9/9/2014	ALS	FD	LA	LS	NA	**3**	**33**	**0.61**	**1.9**	**17**	**0.77**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.6**
6002.2	9/9/2014	LOSL	FD	LA	LS	**52.3**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6002.2	8/1/2015	ALS	SA	LA	LS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.54**
6002.2	8/1/2015	LOSL	SA	LA	LS	**37.1**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6002.2	8/27/2016	ALS	SA	LA	LS	**10**	**1.9**	**22**	**0.58**	**1.8**	**5.6**	**0.72**	< 0.02	< 0.02	< 0.02	< 0.02	**0.0048**	< 0.02	< 0.02	NA	NA	**0.71**
6002.2	8/28/2016	LOSL	SA	LA	LS	**17.5**	< 3.5	< 35.5	< 3.5	< 3.5	**8**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
6002.3	6/28/1987	CAL	SA	LA	LD	**230**	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	**2.3**	NA	NA
6002.3	12/7/1987	CAL	SA	LA	LD	**380**	< 20	< 2	< 0.7	**0.29**	**0.73**	**0.3**	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	**2.4**	NA	NA
6002.3	12/13/1991	LOSL	SA	LA	LD	**192**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6002.3	1/31/1992	LOSL	SA	LA	LD	**280**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6002.3	5/12/1992	LOSL	SA	LA	LD	**199**	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	NA	NA	NA
6002.3	8/12/1992	LOSL	SA	LA	LD	**253**	< 6	< 6	< 6	< 6	< 6	< 6	< 6	< 6	< 6	< 6	< 6	< 6	< 6	NA	NA	NA
6002.3	10/22/1992	LOSL	SA	LA	LD	**317**	< 7	< 7	< 7	< 7	< 7	< 7	< 7	< 7	< 7	< 7	< 7	< 7	< 7	NA	NA	NA
6002.3	3/14/1994	LOSL	UNK	LA	LD	**346**	< 7.2	< 7.2	< 7.2	< 7.2	< 7.2	< 7.2	< 7.2	< 7.2	< 7.2	< 7.2	< 7.2	< 7.2	< 7.2	NA	NA	NA
6002.3	3/14/1994	LOSL	SA	LA	LD	**402**	< 7.1	< 7.1	< 7.1	< 7.1	< 7.1	< 7.1	< 7.1	< 7.1	< 7.1	< 7.1	< 7.1	< 7.1	< 7.1	NA	NA	NA
6002.3	3/10/1995	LOSL	SA	LA	LD	**200.8**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6002.3	3/19/1996	LOSL	SA	LA	LD	**709**	**4.2**	**5.9**	**15.4**	< 3.5	**7.7**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
6002.3	4/9/1997	LOSL	SA	LA	LD	**578.4**	**50.8**	**4.8**	< 3.5	< 3.5	**4.8**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
6002.3	3/30/1998	LOSL	SA	LA	LD	**849.9**	< 3.4	**6.1**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6002.3	8/3/1998	LOSL	SA	LA	LD	**799.6**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6002.3	4/29/1999	LOSL	SA	LA	LD	**843.3**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6002.3	8/3/1999	LOSL	SA	LA	LD	**650.4**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6002.3	7/22/2000	STL	SA	LA	LD	**300**	< 1	**16**	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
6002.3	9/4/2001	STL	SA	LA	LD	**230**	**1**	< 2	< 0.04	< 0.1	**0.25**	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
6002.3	6/26/2002	CAS_K	SA	LA	LD	**740**	**590**	**81**	**28**	**45**	**53**	**36**	**6.3**	< 2.1	< 2.1	< 2.1	**7.9**	< 2.1	< 2.1	NA	NA	NA
6002.3	6/26/2003	CAS-Kelso	SA	LA	LD	**460**	**3800**	**450**	**160**	**280**	**280**	**240**	**49**	**15**	**16**	**21**	**54**	< 1.1	**4.7**	NA	NA	NA
6002.3	6/26/2003	CAS-Kelso	FD	LA	LD	**460**	**3400**	**440**	**160**	**290**	**290**	**220**	**50**	**15**	**16**	**19**	**53**	< 1.1	**4.5**	NA	NA	NA
6002.3	12/13/2003	CAS-Kelso	SA	LA	LD	**1500**	**18000**	**2800**	**960**	**1800**	**1800**	**1500**	**290**	**91**	**110**	**120**	**340**	**6.7**	**29**	NA	NA	NA
6002.3	9/9/2014	ALS	SA	LA	LD	NA	**7300**	**1100**	**420**	**790**	**730**	**620**	**160**	**53**	**92**	**28**	**180**	**5**	**16**	NA	NA	**3.14**
6002.3	9/9/2014	LOSL	SA	LA	LD	**1360**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6002.3	8/27/2016	ALS	SA	LA	LD	**220**	**13000**	**2900**	**1100**	**2200**	**2000**	**1700**	**420**	**140**	**200**	**93**	**460**	**15**	**45**	NA	NA	**3.82**
6002.3	8/27/2016	LOSL	SA	LA	LD	**539**	< 6920	< 1090	< 483	< 818	**727**	< 802	< 168	< 35	< 63	< 35	< 149	< 35	< 35	NA	NA	NA
6003.1	6/28/1987	CHA	SS	UA	US	NA	< 0.5	< 1	< 0.05	< 0.5	< 0.5	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05	< 0.1	< 0.1	NA	NA	NA
6003.1	6/28/1987	CAL	SA	UA	US	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	< 0.5	NA	NA

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
6003.1	6/28/1987	CHA	SA	UA	US	NA	< 0.5	< 1	< 0.05	< 0.5	< 0.5	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05	< 0.1	< 0.1	**1**	NA	NA
6003.1	9/23/1987	CHA	SSFD	UA	US	NA	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	NA
6003.1	9/23/1987	CAL	SS	UA	US	NA	< 2	< 2	< 0.7	< 0.2	**0.92**	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
6003.1	9/23/1987	CHA	SS	UA	US	NA	< 1	< 1	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1	< 1	< 1	< 0.5	**1.5**	< 1	NA	NA	NA
6003.1	12/6/1987	CAL	SA	UA	US	< 0.2	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	< 0.5	NA	NA
6003.1	12/16/1991	LOSL	SA	UA	US	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6003.1	1/29/1992	CAL	SA	UA	US	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.3	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
6003.1	5/11/1992	LOSL	SS	UA	US	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6003.1	5/11/1992	CAL	SA	UA	US	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	< 5	NA	NA
6003.1	5/11/1992	LOSL	SA	UA	US	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6003.1	3/29/1993	CAL	SA	UA	US	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
6003.1	3/8/1994	CAL	SA	UA	US	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
6003.1	3/13/1995	QES	SA	UA	US	**5.1**	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
6003.1	3/11/1996	QES	SA	UA	US	**0.5**	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
6003.1	4/14/1997	QES	SA	UA	US	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
6003.1	8/4/1998	QES	SA	UA	US	< 0.5	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
6003.1	7/27/1999	QES	SA	UA	US	< 0.5	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
6003.1	7/21/2000	STL	SA	UA	US	< 0.5	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
6003.1	8/27/2001	STL	SA	UA	US	< 0.5	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
6003.1	6/19/2002	CAS_K	SA	UA	US	< 0.5	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	NA	NA	NA
6003.1	6/25/2003	CAS-Kelso	SA	UA	US	< 0.5	**0.11**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
6003.1	7/3/2004	CAS-Kelso	SA	UA	US	< 0.5	**0.12**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
6003.1	7/27/2005	CAS-Kelso	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6003.1	11/10/2006	CAS-Kelso	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6003.1	9/26/2007	CAS-Kelso	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6003.1	9/26/2007	CAS-Kelso	FD	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6003.1	4/25/2008	CAS-Kelso	SA	UA	US	< 0.5	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6003.1	4/25/2008	CAS-Kelso	SA	UA	US	< 0.99	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.5	**0.22**	**0.22**
6003.1	9/30/2008	CAS-Kelso	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6003.1	9/30/2008	CAS-Kelso	FD	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6003.1	9/14/2009	CAS	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6003.1	9/7/2010	CAS	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5
6003.1	9/12/2012	CAS	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5
6003.1	9/16/2013	ALS	SA	UA	US	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.35**
6003.1	9/23/2014	ALS	SA	UA	US	< 0.5	**0.019**	< 0.02	**0.0049**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.25**
6003.1	7/26/2015	ALS	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.29**
6003.1	8/27/2016	ALS	SA	UA	US	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.2**
6003.2	6/28/1987	CAL	SA	LA	LS	NA	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	< 0.5	NA	NA
6003.2	12/6/1987	CAL	SA	LA	LS	NA	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	**0.6**	NA	NA
6003.2	12/16/1991	LOSL	SA	LA	LS	**123**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
6003.2	2/4/1992	LOSL	SA	LA	LS	**160**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6003.2	5/13/1992	LOSL	SA	LA	LS	**166**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6003.2	8/13/1992	LOSL	SA	LA	LS	**156**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6003.2	10/26/1992	LOSL	SA	LA	LS	**125**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6003.2	3/15/1994	LOSL	SA	LA	LS	**14.9**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6003.2	3/9/1995	LOSL	SA	LA	LS	**428.2**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6003.2	3/11/1996	LOSL	SA	LA	LS	**311**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
6003.2	4/15/1997	LOSL	SA	LA	LS	**978**	**50.4**	**7.6**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
6003.2	3/30/1998	LOSL	SA	LA	LS	**873.5**	< 3.4	**7.7**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6003.2	8/4/1998	LOSL	SA	LA	LS	**972.1**	< 3	**9**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6003.2	4/28/1999	LOSL	SA	LA	LS	**70.2**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6003.2	8/3/1999	LOSL	SA	LA	LS	**707.6**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	**10.7**	**13**	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6003.2	7/22/2000	STL	SA	LA	LS	**330**	< 1	**29**	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
6003.2	9/5/2001	STL	SA	LA	LS	**160**	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
6003.2	6/26/2002	CAS_K	SA	LA	LS	**610**	**0.24**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	NA	NA	NA
6003.2	6/26/2002	CAS_K	FD	LA	LS	**650**	**0.43**	< 0.022	< 0.022	< 0.022	**0.038**	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	NA	NA	NA
6003.2	6/25/2003	LOSL	SS	LA	LS	**199.81**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
6003.2	6/25/2003	CAS-Kelso	SA	LA	LS	**330**	**0.51**	< 0.02	< 0.02	< 0.02	**0.074**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
6003.2	6/25/2003	CAS-Kelso	FD	LA	LS	**320**	**0.21**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
6003.2	12/13/2003	CAS-Kelso	SA	LA	LS	**440**	**0.13**	**0.033**	**0.009**	**0.0081**	**0.0093**	**0.0041**	< 0.02	< 0.02	**0.0029**	**0.0015**	< 0.02	< 0.02	< 0.02	NA	NA	NA
6003.2	7/3/2004	CAS-Kelso	SA	LA	LS	**590**	**0.21**	< 0.02	**0.047**	< 0.02	**0.088**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
6003.2	12/1/2004	CAS-Kelso	SA	LA	LS	**300**	**0.36**	**0.012**	**0.034**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
6003.2	7/18/2005	LOSL	SA	LA	LS	**271**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6003.2	11/8/2006	LOSL	SA	LA	LS	**372**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6003.2	9/20/2007	LOSL	SA	LA	LS	**177.6**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6003.2	9/26/2008	LOSL	SA	LA	LS	**173.9**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6003.2	9/14/2009	LOSL	SA	LA	LS	**187.5**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6003.2	9/3/2010	CAS	SA	LA	LS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.5**
6003.2	9/3/2010	LOSL	SA	LA	LS	**118**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6003.2	9/16/2011	LOSL	SA	LA	LS	**47.3**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6003.2	9/12/2012	CAS	SA	LA	LS	NA	**0.88**	**0.047**	**0.2**	**0.024**	**0.51**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	**1.5**	NA	**0.5**
6003.2	9/12/2012	LOSL	SA	LA	LS	**66.4**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6003.2	9/14/2013	LOSL	SA	LA	LS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 3.5	< 3.5	NA	NA	NA
6003.2	9/16/2013	ALS	SA	LA	LS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.66**
6003.2	9/16/2013	LOSL	SA	LA	LS	**77.8**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA	NA	NA
6003.2	9/6/2014	ALS	SA	LA	LS	NA	**0.43**	**0.19**	**0.13**	**0.029**	**0.86**	< 0.02	**0.0031**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.6**
6003.2	9/6/2014	LOSL	SA	LA	LS	**23**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6003.2	8/1/2015	ALS	SA	LA	LS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.63**
6003.2	8/1/2015	LOSL	SA	LA	LS	**32.2**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6003.2	8/27/2016	ALS	SA	LA	LS	**39**	< 0.2	< 0.085	**0.11**	**0.031**	**0.69**	**0.0073**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.5**

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
6003.2	8/27/2016	LOSL	SA	LA	LS	**21.6**	< 3.5	< 3.7	< 3.5	< 3.5	**3.5**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
6003.3	6/30/1987	CAL	SA	LA	LD	NA	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
6003.3	12/6/1987	CAL	SA	LA	LD	NA	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
6003.3	12/16/1991	LOSL	SA	LA	LD	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6003.3	1/29/1992	CAL	SA	LA	LD	**1**	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
6003.3	5/13/1992	LOSL	SA	LA	LD	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6003.3	8/13/1992	LOSL	SA	LA	LD	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6003.3	10/26/1992	LOSL	SA	LA	LD	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6003.3	3/15/1994	LOSL	SA	LA	LD	**4.4**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6003.3	3/9/1995	LOSL	SA	LA	LD	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6003.3	3/11/1996	LOSL	SA	LA	LD	**15.2**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
6003.3	4/15/1997	LOSL	SA	LA	LD	**29.6**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
6003.3	3/30/1998	LOSL	SA	LA	LD	**9.5**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6003.3	8/3/1998	LOSL	SA	LA	LD	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6003.3	4/28/1999	LOSL	SA	LA	LD	**31.3**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6003.3	8/2/1999	LOSL	SA	LA	LD	**21.8**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6003.3	8/2/1999	QES	SA	LA	LD	**17**	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
6003.3	7/21/2000	LOSL	SA	LA	LD	**24**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6003.3	7/21/2000	STL	SA	LA	LD	**14**	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
6003.3	7/21/2000	STL	FD	LA	LD	**14**	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 1	NA	NA	NA
6003.3	9/4/2001	LOSL	SS	LA	LD	**22.9**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
6003.3	9/4/2001	STL	SA	LA	LD	**8.2**	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
6003.3	6/25/2002	LOSL	SS	LA	LD	**10.69**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
6003.3	6/25/2002	CAS_K	SA	LA	LD	**45**	**0.08**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	NA	NA	NA
6003.3	6/25/2002	CAS_K	SA	LA	LD	< 55	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6003.3	6/25/2003	LOSL	SS	LA	LD	**5.69**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
6003.3	6/25/2003	CAS-Kelso	SA	LA	LD	**18**	**0.14**	**0.026**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
6003.3	7/3/2004	CAS-Kelso	SA	LA	LD	**150**	**0.16**	**0.08**	**0.033**	**0.073**	**0.29**	**0.057**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
6003.3	7/18/2005	LOSL	SA	LA	LD	**29.8**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6003.3	11/8/2006	LOSL	SA	LA	LD	**80.3**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6003.3	9/25/2007	CAS-Kelso	SS	LA	LD	**420**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6003.3	9/25/2007	LOSL	SA	LA	LD	**335.6**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6003.3	9/25/2007	LOSL	FD	LA	LD	**343.4**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6003.3	9/26/2008	LOSL	SA	LA	LD	**82.9**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6003.3	9/14/2009	LOSL	SS	LA	LD	**109.2**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6003.3	9/14/2009	CAS	SA	LA	LD	**130**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6003.3	9/3/2010	LOSL	SS	LA	LD	**101.2**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6003.3	9/3/2010	CAS	SA	LA	LD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5
6003.3	9/16/2011	CAS	SA	LA	LD	**130**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6003.3	9/16/2011	LOSL	SA	LA	LD	**124**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
6003.3	9/12/2012	CAS	SA	LA	LD	NA	**0.35**	< 0.02	**0.09**	< 0.02	**0.19**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6003.3	9/12/2012	LOSL	SA	LA	LD	**117**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6003.3	9/16/2013	ALS	SA	LA	LD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.72**
6003.3	9/16/2013	LOSL	SA	LA	LD	**70.2**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
6003.3	9/6/2014	ALS	SA	LA	LD	NA	**0.24**	**0.056**	**0.064**	**0.011**	**0.36**	< 0.02	**0.0028**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.7**
6003.3	9/6/2014	LOSL	SA	LA	LD	**63.2**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6003.3	8/1/2015	ALS	SA	LA	LD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.68**
6003.3	8/1/2015	LOSL	SA	LA	LD	**107**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6003.3	8/27/2016	ALS	SA	LA	LD	**170**	< 0.28	< 0.02	< 0.081	**0.012**	**0.42**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.65**
6003.3	8/27/2016	ALS	FD	LA	LD	**180**	< 0.28	< 0.031	**0.075**	**0.012**	**0.44**	< 0.02	**0.0028**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.67**
6003.3	8/27/2016	LOSL	SA	LA	LD	**62.9**	< 3.5	< 3.5	< 3.5	< 3.5	**3.5**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
6006.1	12/17/1991	LOSL	SA			< 3	**4**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6006.1	2/4/1992	LOSL	SA			**4**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6006.1	5/18/1992	LOSL	SA			< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6006.1	8/25/1992	LOSL	SA			< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6006.1	10/28/1992	LOSL	SA			< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6006.1	3/16/1994	LOSL	SA			< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
6007.1	12/5/1991	LOSL	SA	LA/TILL	LD	**1018**	**13**	< 3	< 3	< 3	**8**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6007.1	1/30/1992	LOSL	SA	LA/TILL	LD	**1802**	**15**	**7**	< 3	< 3	**7**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6007.1	5/8/1992	LOSL	SA	LA/TILL	LD	**1363**	**16**	**7**	< 3	< 3	**9**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6007.1	8/17/1992	LOSL	SA	LA/TILL	LD	**866**	< 34	< 34	< 34	< 34	< 34	< 34	< 34	< 34	< 34	< 34	< 34	< 34	< 34	NA	NA	NA
6007.1	10/27/1992	LOSL	SA	LA/TILL	LD	**656**	< 31	< 31	< 31	< 31	< 31	< 31	< 31	< 31	< 31	< 31	< 31	< 31	< 31	NA	NA	NA
6007.1	3/16/1994	LOSL	SA	LA/TILL	LD	**37.3**	< 4.2	< 4.2	< 4.2	< 4.2	< 4.2	< 4.2	< 4.2	**9.4**	**4.3**	**4.3**	< 4.2	**13.2**	**13.2**	NA	NA	NA
6007.1	3/14/1995	LOSL	UNK	LA/TILL	LD	**259.2**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6007.1	3/14/1995	LOSL	SA	LA/TILL	LD	**188.2**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6007.1	3/19/1996	LOSL	SA	LA/TILL	LD	**1673**	**11**	**8.5**	**26.9**	< 3.5	**10.9**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
6007.1	3/19/1996	QES	SA	LA/TILL	LD	NA	< 9.5	**120**	< 0.7	< 0.2	**9.2**	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
6007.1	3/19/1996	LOSL	FD	LA/TILL	LD	**1385**	**7.6**	**8.1**	**22.8**	< 3.4	**8.7**	**-999**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
6007.1	4/16/1997	LOSL	SA	LA/TILL	LD	**887**	**3.5**	**5**	< 3.5	< 3.5	**3.7**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
6007.1	8/5/1998	LOSL	SA	LA/TILL	LD	**1528.9**	**4**	**12**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6007.1	4/29/1999	LOSL	SA	LA/TILL	LD	**492**	< 3.4	**6.2**	< 3.4	< 3.4	**6.5**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6007.1	8/3/1999	LOSL	SA	LA/TILL	LD	**748.4**	**16.9**	**8.7**	< 3.4	< 3.4	**11.4**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6007.1	7/21/2000	STL	SA	LA/TILL	LD	**610**	< 20	< 20	< 0.4	< 1	**8**	< 2	< 0.8	< 0.5	< 0.2	< 0.2	< 1	< 2	< 1	NA	NA	NA
6007.1	9/4/2001	STL	SA	LA/TILL	LD	**21**	< 1	< 2	< 0.04	< 0.1	**0.34**	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
6007.1	6/26/2002	CAS_K	SA	LA/TILL	LD	**1200**	**6.3**	**4.4**	**0.18**	**0.18**	**4.4**	**0.088**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	NA	NA	NA
6007.1	7/1/2003	CAS-Kelso	SA	LA/TILL	LD	**51**	**0.68**	**0.54**	< 0.02	**0.025**	**0.45**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
6007.1	7/6/2004	CAS-Kelso	SA	LA/TILL	LD	**1100**	**73**	**17**	**4**	**8.1**	**8.4**	**6.3**	**1.4**	**0.38**	**0.42**	**0.44**	**1.5**	< 0.02	**0.081**	NA	NA	NA
6007.1	7/19/2005	LOSL	SA	LA/TILL	LD	**286.5**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6007.1	11/10/2006	LOSL	SA	LA/TILL	LD	**657.5**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6007.1	9/21/2007	LOSL	SA	LA/TILL	LD	**374.2**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6007.1	9/28/2008	LOSL	SA	LA/TILL	LD	**500.4**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6007.1	9/15/2009	LOSL	SA	LA/TILL	LD	**546**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6007.1	9/4/2010	CAS	SA	LA/TILL	LD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**1.8**
6007.1	9/4/2010	LOSL	SA	LA/TILL	LD	**405.2**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6007.1	9/16/2011	LOSL	SA	LA/TILL	LD	**401**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6007.1	9/11/2012	CAS	SA	LA/TILL	LD	NA	**5.2**	**6.8**	**0.4**	**0.18**	**5.1**	**0.067**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	**4.1**	NA	**1.6**
6007.1	9/11/2012	LOSL	SA	LA/TILL	LD	**420**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6007.1	9/13/2013	ALS	SA	LA/TILL	LD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**1.79**

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
6007.1	9/13/2013	LOSL	SA	LA/TILL	LD	**286**	**107**	< 17.5	< 17.5	< 17.5	< 17.5	< 17.5	< 17.5	< 17.5	< 17.5	< 17.5	< 17.5	< 17.5	< 17.5	NA	NA	NA
6007.1	9/6/2014	ALS	SA	LA/TILL	LD	NA	**4.5**	**6.7**	**0.29**	**0.14**	**5.1**	**0.052**	**0.0041**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**1.6**
6007.1	9/6/2014	LOSL	SA	LA/TILL	LD	**291**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6007.1	8/3/2015	ALS	SA	LA/TILL	LD	**460**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**1.56**
6007.1	8/3/2015	LOSL	SA	LA/TILL	LD	**182**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6007.1	8/28/2016	ALS	SA	LA/TILL	LD	**390**	**2.5**	**1.8**	< 0.16	**0.025**	**2.1**	**0.012**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**1.47**
6007.1	8/28/2016	LOSL	SA	LA/TILL	LD	**204**	< 4.2	< 4.5	< 3.5	< 3.5	**7.3**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
6008.1	10/8/1996	LOSL	SA	LA/TILL	LD	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	NA	NA	NA
6008.1	10/8/1996	LOSL	FD	LA/TILL	LD	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	NA	NA	NA
6008.1	4/8/1997	LOSL	SA	LA/TILL	LD	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6008.1	8/3/1998	LOSL	SA	LA/TILL	LD	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6008.1	4/28/1999	LOSL	SA	LA/TILL	LD	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6008.1	7/28/1999	LOSL	SA	LA/TILL	LD	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6008.1	7/19/2000	STL	SA	LA/TILL	LD	< 0.5	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
6008.1	8/27/2001	STL	SA	LA/TILL	LD	< 0.5	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
6008.1	6/19/2002	CAS_K	SA	LA/TILL	LD	< 0.5	**0.046**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	NA	NA	NA
6008.1	6/18/2003	CAS-Kelso	SA	LA/TILL	LD	< 0.5	**0.15**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	NA	NA	NA
6008.1	7/5/2004	CAS-Kelso	SA	LA/TILL	LD	< 0.5	**0.02**	**0.022**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
6009.1	10/8/1996	LOSL	SA	LA	LD	**492.2**	**17**	**43**	**3**	< 3	**25**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6009.1	10/8/1996	LOSL	FD	LA	LD	**-999**	**-999**	**-999**	**-999**	< 3	**-999**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6010.1	8/11/2010	CAS	SA	UA	US	**6.7**	< 0.19	**0.043**	**0.046**	< 0.02	**0.056**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6010.1	8/11/2010	CAS	FD	UA	US	**7.5**	< 0.16	**0.045**	**0.047**	< 0.021	**0.054**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	NA	< 0.5

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
6010.1	12/1/2010	CAS	SA	UA	US	**8**	**0.47**	**0.12**	**0.078**	< 0.021	**0.1**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	< 0.5	< 0.5
6010.1	12/1/2010	CAS	FD	UA	US	**7.8**	**0.41**	**0.13**	**0.092**	< 0.021	**0.11**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	< 0.5	< 0.5
6010.1	3/25/2011	CAS	SA	UA	US	**5.1**	**0.56**	**0.11**	**0.1**	< 0.021	**0.075**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	NA	< 0.5
6010.1	3/25/2011	CAS	FD	UA	US	**5.3**	**0.53**	**0.11**	**0.11**	< 0.021	**0.082**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	NA	< 0.5
6010.1	9/14/2011	CAS	SA	UA	US	**1.5**	< 0.32	**0.087**	**0.067**	< 0.02	**0.047**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6010.1	9/14/2011	LOSL	SA	UA	US	**1.69**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010.1	9/14/2011	CAS	FD	UA	US	**1.6**	< 0.31	**0.09**	**0.061**	< 0.02	**0.045**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6010.1	12/19/2011	CAS	SA	UA	US	**2.9**	**0.4**	**0.12**	**0.093**	< 0.02	**0.071**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6010.1	12/19/2011	CAS	FD	UA	US	**3.1**	**0.76**	**0.13**	**0.089**	< 0.02	**0.082**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6010.1	9/22/2012	CAS	SA	UA	US	**3.8**	**0.13**	**0.029**	**0.076**	< 0.021	**0.049**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	NA	< 0.5
6010.1	9/22/2012	CAS	FD	UA	US	**4**	**0.1**	**0.029**	**0.085**	< 0.021	**0.048**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	NA	< 0.5
6010.1	9/25/2013	ALS	SA	UA	US	**160**	**0.35**	**0.05**	**0.11**	< 0.02	**0.072**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**3.05**
6010.1	9/25/2013	ALS	FD	UA	US	**170**	**0.18**	**0.049**	**0.12**	< 0.02	**0.073**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.53**
6010.1	7/29/2015	ALS	SA	UA	US	**0.98**	**0.092**	**0.049**	**0.11**	< 0.02	**0.051**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	< 0.5
6010.1	7/29/2015	ALS	FD	UA	US	**0.96**	**0.12**	**0.05**	**0.082**	< 0.02	**0.057**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	< 0.5
6010.1	9/20/2016	ALS	SA	UA	US	**0.93**	< 0.073	< 0.041	**0.076**	< 0.02	< 0.044	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	< 0.5
6010.2	8/11/2010	CAS	SA	UA	UM	**1**	**130**	**27**	**0.98**	**0.48**	**10**	**0.28**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**14.7**
6010.2	12/1/2010	CAS	SA	UA	UM	**0.43**	**220**	**42**	**1.9**	**0.96**	**17**	**0.64**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.19**	**16.9**	**17**
6010.2	3/25/2011	CAS	SA	UA	UM	**1.4**	**81**	**27**	**1.3**	**0.61**	**8.4**	**0.42**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	NA	**9.5**
6010.2	9/14/2011	CAS	SA	UA	UM	< 0.5	**8.2**	**24**	**0.75**	**0.35**	**6.3**	**0.21**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**10.2**
6010.2	12/19/2011	CAS	SA	UA	UM	< 0.5	**93**	**38**	**1.4**	**0.81**	**15**	**0.49**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**17.8**
6010.2	9/22/2012	CAS	SA	UA	UM	**1.1**	**14**	**16**	**0.57**	**0.21**	**5.3**	**0.1**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**7.9**
6010.2	9/25/2013	ALS	SA	UA	UM	**0.85**	**27**	**16**	**0.61**	**0.21**	**4.9**	**0.11**	**0.0048**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**7.06**
6010.2	7/29/2015	ALS	SA	UA	UM	**0.46**	**22**	**22**	**0.77**	**0.3**	**7**	**0.17**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**7.76**
6010.2	9/20/2016	ALS	SA	UA	UM	**0.59**	**39**	**18**	**0.42**	**0.13**	**5.8**	**0.063**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**3.79**
6010.3	8/11/2010	CAS	SA	UA	UD	< 0.5	< 0.073	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6010.3	8/11/2010	CAS	FD	UA	UD	< 0.5	< 0.093	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.62**	NA	< 0.5
6010.3	12/1/2010	CAS	SA	UA	UD	< 0.5	**0.056**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	< 0.5	< 0.5
6010.3	3/25/2011	CAS	SA	UA	UD	< 0.5	**0.032**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	NA	< 0.5
6010.3	9/14/2011	CAS	SA	UA	UD	< 0.5	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	NA	< 0.5
6010.3	12/19/2011	CAS	SA	UA	UD	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6010.3	9/22/2012	CAS	SA	UA	UD	< 0.5	**0.037**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6010.3	9/25/2013	ALS	SA	UA	UD	< 0.5	**0.027**	< 0.02	**0.0047**	< 0.02	< 0.02	< 0.02	**0.0033**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.41**
6010.3	7/29/2015	ALS	SA	UA	UD	< 0.5	**0.014**	< 0.02	**0.0037**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.46**
6010.3	9/20/2016	ALS	SA	UA	UD	**0.076**	< 0.071	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.4**
6011.1	8/11/2010	CAS	SA	UA	US	< 0.5	**7.5**	**7.8**	**0.39**	**0.4**	**3.5**	**0.28**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**4.4**
6011.1	11/29/2010	CAS	SA	UA	US	< 0.5	**0.8**	**6.4**	**0.25**	**0.43**	**2.7**	**0.32**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.07**	**3.9**	**4.7**
6011.1	3/23/2011	CAS	SA	UA	US	< 0.5	**0.022**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**0.6**
6011.1	9/14/2011	CAS	SA	UA	US	< 0.5	**0.22**	**0.56**	**0.043**	**0.08**	**0.2**	**0.064**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**10.5**
6011.1	12/17/2011	CAS	SA	UA	US	< 0.5	**0.069**	**1.3**	**0.066**	**0.077**	**0.47**	**0.05**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**6.6**

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
6011.1	9/18/2012	CAS	SA	UA	US	< 0.5	**0.59**	**3.5**	**0.12**	**0.022**	**1.1**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**11.2**
6011.1	9/25/2013	ALS	SA	UA	US	< 0.5	**0.54**	**6.1**	**0.34**	**0.092**	**1.8**	**0.072**	**0.005**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**7**
6011.1	7/29/2015	ALS	SA	UA	US	< 0.5	**0.25**	**2.5**	**0.084**	**0.049**	**0.36**	**0.031**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**10.7**
6011.1	9/14/2016	ALS	SA	UA	US	< 0.5	< 0.39	**3.6**	**0.11**	**0.051**	< 0.26	**0.03**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**6.37**
6011.1	9/14/2016	ALS	FD	UA	US	< 0.5	< 0.39	**3.6**	**0.12**	**0.045**	< 0.26	**0.03**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**6.41**
6011.2	8/11/2010	CAS	SA	UA	UM	< 0.5	**2.7**	**7.4**	**0.37**	**0.41**	**2.9**	**0.3**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**3.3**
6011.2	11/29/2010	CAS	SA	UA	UM	< 0.5	**1.1**	**6.8**	**0.32**	**0.46**	**2.5**	**0.29**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.19**	**3.9**	**3.8**
6011.2	3/23/2011	CAS	SA	UA	UM	< 0.5	**2**	**8**	**0.41**	**0.51**	**2.5**	**0.32**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	NA	**3.8**
6011.2	9/14/2011	CAS	SA	UA	UM	< 0.5	**2**	**9**	**0.38**	**0.5**	**2.5**	**0.29**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**3.5**
6011.2	12/14/2011	CAS	SA	UA	UM	< 0.5	**0.84**	**7.4**	**0.37**	**0.48**	**1.8**	**0.29**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	**3.6**	NA
6011.2	9/18/2012	CAS	SA	UA	UM	< 0.5	**1.1**	**8.8**	**0.41**	**0.51**	**1.7**	**0.32**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**3.3**
6011.2	9/25/2013	ALS	SA	UA	UM	< 0.5	**1**	**7.8**	**0.48**	**0.57**	**1.2**	**0.4**	**0.0079**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**3.54**
6011.2	7/29/2015	ALS	SA	UA	UM	< 0.5	**0.51**	**8.8**	**0.54**	**0.66**	**0.62**	**0.45**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	NA	NA	**3.34**
6011.2	9/14/2016	ALS	SA	UA	UM	< 0.5	< 1.2	**6.6**	**0.33**	**0.39**	< 0.23	**0.24**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**3.46**
6011.3	8/12/2010	CAS	SA	UA	UD	< 0.5	**3**	**6.8**	**0.31**	**0.21**	**2.5**	**0.13**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	NA	**2.1**
6011.3	11/29/2010	CAS	SA	UA	UD	< 0.5	**1.1**	**6.6**	**0.3**	**0.42**	**2**	**0.25**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.21**	**4**	**4.3**
6011.3	3/23/2011	CAS	SA	UA	UD	< 0.5	**1.8**	**7.4**	**0.33**	**0.44**	**1.8**	**0.27**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**4.3**
6011.3	9/14/2011	CAS	SA	UA	UD	< 0.5	**1.8**	**8.2**	**0.3**	**0.41**	**1.8**	**0.24**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**4.3**
6011.3	12/14/2011	CAS	SA	UA	UD	< 0.5	**0.92**	**7.1**	**0.32**	**0.44**	**1.3**	**0.24**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	**4.4**	NA
6011.3	9/18/2012	CAS	SA	UA	UD	< 0.5	**1.3**	**8.5**	**0.34**	**0.42**	**1.3**	**0.25**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**3.9**
6011.3	9/25/2013	ALS	SA	UA	UD	< 0.5	**160**	**37**	**1.3**	**1.3**	**29**	**0.7**	**0.0092**	< 0.021	< 0.021	< 0.021	**0.0051**	< 0.021	< 0.021	NA	NA	**10.7**
6011.3	9/25/2013	ALS	FD	UA	UD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6011.3	7/29/2015	ALS	SA	UA	UD	< 0.5	**47**	**28**	**1.3**	**1.8**	**21**	**0.99**	< 0.021	< 0.021	< 0.021	< 0.021	**0.0066**	< 0.021	< 0.021	NA	NA	**6.52**
6011.3	7/29/2015	ALS	FD	UA	UD	< 0.5	**42**	**26**	**1.2**	**1.7**	**19**	**0.98**	< 0.021	< 0.021	< 0.021	< 0.021	**0.0063**	< 0.021	< 0.021	NA	NA	**6.6**
6011.3	9/14/2016	ALS	SA	UA	UD	< 0.5	**73**	**32**	**0.92**	**1.3**	**22**	**0.64**	< 0.02	< 0.02	< 0.02	< 0.02	**0.0052**	< 0.02	< 0.02	NA	NA	**6.18**
6012.1	8/15/2010	CAS	SA	UA	US	< 0.5	< 0.033	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	NA	< 0.5
6012.1	11/20/2010	CAS	SA	UA	US	< 0.5	**0.11**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	< 0.5	< 0.5
6012.1	3/21/2011	CAS	SA	UA	US	< 0.5	**0.1**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	NA	< 0.5
6012.1	9/13/2011	CAS	SA	UA	US	< 0.5	**0.11**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6012.1	12/14/2011	CAS	SA	UA	US	< 0.5	**0.076**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	< 0.5	NA
6012.1	9/19/2012	CAS	SA	UA	US	< 0.5	**0.073**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6012.1	9/23/2013	ALS	SA	UA	US	< 0.5	**0.06**	< 0.02	**0.021**	< 0.02	**0.011**	**0.0081**	**0.0035**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.1**
6012.1	7/28/2015	ALS	SA	UA	US	< 0.5	< 0.02	< 0.02	**0.023**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	< 0.5
6012.1	9/13/2016	ALS	SA	UA	US	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.014**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	< 0.5
6012.2	8/15/2010	CAS	SA	UA	UM	< 0.5	< 0.072	**0.12**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	NA	< 0.5
6012.2	11/20/2010	CAS	SA	UA	UM	< 0.5	**0.1**	**0.048**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	< 0.5	**0.8**
6012.2	3/20/2011	CAS	SA	UA	UM	< 0.5	**0.14**	**0.084**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**0.9**
6012.2	9/13/2011	CAS	SA	UA	UM	< 0.5	**0.11**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**1**
6012.2	12/14/2011	CAS	SA	UA	UM	< 0.5	**0.1**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	**0.9**	NA
6012.2	9/19/2012	CAS	SA	UA	UM	< 0.5	**0.09**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**1.5**

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
6012.2	9/23/2013	ALS	SA	UA	UM	< 0.5	**0.11**	**0.026**	**0.028**	< 0.02	**0.009**	**0.0086**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**8.7**
6012.2	7/28/2015	ALS	SA	UA	UM	< 0.5	**0.02**	**0.042**	**0.031**	< 0.019	**0.0088**	**0.009**	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	NA	NA	**2.6**
6012.2	9/13/2016	ALS	SA	UA	UM	< 0.5	< 0.02	< 0.045	< 0.02	< 0.02	< 0.02	**0.0095**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**27.4**
6012.3	8/15/2010	CAS	SA	UA	UD	< 0.5	< 0.051	< 0.02	**0.02**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**0.8**
6012.3	11/20/2010	CAS	SA	UA	UD	< 0.5	**0.087**	< 0.021	< 0.021	< 0.021	< 0.029	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	**1.8**	**1.7**
6012.3	3/20/2011	CAS	SA	UA	UD	< 0.5	**0.21**	< 0.02	< 0.02	< 0.02	< 0.04	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**2.1**
6012.3	9/13/2011	CAS	SA	UA	UD	< 0.5	**0.2**	< 0.02	< 0.023	< 0.02	< 0.024	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**0.6**
6012.3	12/14/2011	CAS	SA	UA	UD	< 0.5	**0.24**	< 0.02	**0.027**	< 0.02	< 0.028	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	**1.9**	NA
6012.3	9/19/2012	CAS	SA	UA	UD	< 0.5	**0.11**	< 0.02	**0.031**	< 0.02	**0.026**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**1.2**
6012.3	9/23/2013	ALS	SA	UA	UD	< 0.5	**0.067**	**0.006**	**0.0098**	< 0.02	< 0.032	**0.013**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**1**
6012.3	7/28/2015	ALS	SA	UA	UD	< 0.5	**0.018**	< 0.019	**0.039**	< 0.019	**0.019**	**0.01**	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	NA	NA	**0.63**
6012.3	9/13/2016	ALS	SA	UA	UD	< 0.5	< 0.023	< 0.019	< 0.024	< 0.019	< 0.019	**0.0084**	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	NA	NA	**0.65**
6012.3	9/13/2016	ALS	FD	UA	UD	< 0.5	< 0.039	< 0.02	< 0.024	< 0.02	< 0.02	**0.009**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.68**
6013.1	8/14/2010	CAS	SA	UA	US	< 0.5	< 0.027	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6013.1	11/20/2010	CAS	SA	UA	US	< 0.5	**0.4**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	< 0.5	< 0.5
6013.1	3/20/2011	CAS	SA	UA	US	< 0.5	**0.13**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6013.1	9/13/2011	CAS	SA	UA	US	< 0.5	**0.11**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6013.1	12/12/2011	CAS	SA	UA	US	< 0.5	**0.08**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	< 0.5	NA
6013.1	9/18/2012	CAS	SA	UA	US	< 0.5	**0.07**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6013.1	9/17/2013	ALS	SA	UA	US	< 0.5	**0.016**	< 0.02	**0.0095**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.63**
6013.1	7/28/2015	ALS	SA	UA	US	< 0.5	< 0.02	< 0.02	**0.01**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.32**
6013.1	9/5/2016	ALS	SA	UA	US	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.0052**	< 0.02	< 0.02	< 0.02	**0.0031**	**0.0036**	NA	NA	**0.31**
6013.2	8/14/2010	CAS	SA	UA	UM	< 0.5	< 0.031	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	NA	< 0.5
6013.2	11/20/2010	CAS	SA	UA	UM	< 0.5	**0.18**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	< 0.5	< 0.5
6013.2	3/20/2011	CAS	SA	UA	UM	< 0.5	**0.11**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6013.2	9/13/2011	CAS	SA	UA	UM	< 0.5	**0.086**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6013.2	12/12/2011	CAS	SA	UA	UM	< 0.5	**0.068**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	< 0.5	NA
6013.2	9/18/2012	CAS	SA	UA	UM	< 0.5	**0.086**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6013.2	9/17/2013	ALS	SA	UA	UM	< 0.5	**0.057**	< 0.02	**0.013**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.26**
6013.2	7/28/2015	ALS	SA	UA	UM	< 0.5	< 0.02	< 0.02	**0.015**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	< 0.5
6013.2	9/5/2016	ALS	SA	UA	UM	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	< 0.5
6013.3	8/14/2010	CAS	SA	UA	UD	< 0.5	< 0.039	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	NA	< 0.5
6013.3	11/20/2010	CAS	SA	UA	UD	< 0.5	**0.25**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	**1.7**	**1.9**
6013.3	3/20/2011	CAS	SA	UA	UD	< 0.5	**0.18**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**2.7**
6013.3	9/13/2011	CAS	SA	UA	UD	< 0.5	**0.074**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**1.1**
6013.3	12/12/2011	CAS	SA	UA	UD	< 0.5	**0.067**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	**1.6**	NA
6013.3	9/18/2012	CAS	SA	UA	UD	< 0.5	**0.081**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**0.7**
6013.3	9/17/2013	ALS	SA	UA	UD	< 0.5	**0.058**	**0.0066**	**0.017**	< 0.02	**0.005**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**1.18**
6013.3	7/28/2015	ALS	SA	UA	UD	< 0.5	**0.0067**	< 0.02	**0.023**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.91**
6013.3	9/5/2016	ALS	SA	UA	UD	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.79**

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
6014.1	8/13/2010	CAS	SA	UA	US	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6014.1	11/29/2010	CAS	SA	UA	US	< 0.5	**0.14**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	< 0.5	< 0.5
6014.1	3/26/2011	CAS	SA	UA	US	< 0.5	**0.061**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6014.1	9/19/2011	CAS	SA	UA	US	< 0.5	**0.1**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6014.1	12/17/2011	CAS	SA	UA	US	< 0.5	**0.076**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6014.1	9/12/2012	CAS	SA	UA	US	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6014.1	9/24/2013	ALS	SA	UA	US	< 0.5	**0.038**	< 0.02	**0.0065**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.2**
6014.1	7/26/2015	ALS	SA	UA	US	< 0.5	**0.0071**	< 0.021	**0.006**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	NA	NA	< 0.5
6014.1	8/27/2016	ALS	SA	UA	US	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	< 0.5
6014.2	8/13/2010	CAS	SA	UA	UM	**17**	< 0.19	**0.022**	**0.1**	< 0.02	**1.6**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6014.2	11/29/2010	CAS	SA	UA	UM	**8.1**	**0.19**	< 0.78	**0.061**	< 0.021	**0.92**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	**0.6**	< 0.5
6014.2	3/26/2011	CAS	SA	UA	UM	**22**	**0.37**	< 2.4	**0.15**	< 0.02	**2.1**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**0.6**
6014.2	9/19/2011	CAS	SA	UA	UM	**4.7**	**0.15**	< 0.02	**0.036**	< 0.02	**0.39**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6014.2	12/17/2011	CAS	SA	UA	UM	**6.1**	**0.098**	< 0.02	**0.054**	< 0.02	**0.41**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6014.2	9/12/2012	CAS	SA	UA	UM	**5.3**	**0.18**	< 0.02	**0.064**	< 0.02	**0.27**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6014.2	9/24/2013	ALS	SA	UA	UM	**3.9**	**0.21**	**0.018**	**0.091**	**0.013**	**0.24**	< 0.02	< 0.02	< 0.02	< 0.02	**0.0033**	< 0.02	< 0.02	< 0.02	NA	NA	**0.3**
6014.2	7/26/2015	ALS	SA	UA	UM	**1**	**0.04**	**0.0045**	**0.026**	< 0.019	**0.02**	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	NA	NA	**0.31**
6014.2	8/27/2016	ALS	SA	UA	UM	**0.85**	< 0.024	< 0.02	< 0.021	< 0.02	< 0.024	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.25**
6014.3	8/13/2010	CAS	SA	UA	UD	**10**	< 0.29	**0.055**	**0.17**	**0.3**	**0.57**	**0.079**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**0.7**
6014.3	11/29/2010	CAS	SA	UA	UD	**7.4**	**0.38**	< 2.3	**0.18**	**0.49**	**0.54**	**0.12**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.25**	**0.7**	**0.7**
6014.3	3/26/2011	CAS	SA	UA	UD	**6.2**	**0.42**	< 2.1	**0.23**	**0.46**	**0.39**	**0.12**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**0.6**
6014.3	9/19/2011	CAS	SA	UA	UD	**4.6**	**0.52**	**0.054**	**0.15**	**0.48**	**0.29**	**0.12**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**0.7**
6014.3	12/17/2011	CAS	SA	UA	UD	**5.3**	**0.3**	**0.058**	**0.12**	**0.53**	**0.3**	**0.13**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**0.6**
6014.3	9/12/2012	CAS	SA	UA	UD	**3.7**	**0.37**	**0.061**	**0.2**	**0.6**	< 0.27	**0.16**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	NA	**0.6**
6014.3	9/24/2013	ALS	SA	UA	UD	**2.6**	**0.37**	**0.063**	**0.24**	**0.73**	< 0.32	**0.22**	**0.003**	< 0.02	< 0.02	**0.0073**	< 0.02	< 0.02	< 0.02	NA	NA	**0.6**
6014.3	7/26/2015	ALS	SA	UA	UD	**1.7**	**0.3**	**0.037**	**0.12**	**0.82**	**0.28**	**0.29**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.56**
6014.3	8/27/2016	ALS	SA	UA	UD	**1.5**	< 0.11	< 0.02	**0.14**	**0.7**	< 0.22	**0.2**	**0.0028**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.5**
6015.1	8/13/2010	CAS	SA	UA	US	< 0.5	< 0.067	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6015.1	11/30/2010	CAS	SA	UA	US	**6.7**	**0.096**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	< 0.5	< 0.5
6015.1	3/25/2011	CAS	SA	UA	US	< 0.5	**0.11**	< 0.02	**0.022**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6015.1	9/20/2011	CAS	SA	UA	US	< 0.5	**0.08**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6015.1	12/19/2011	CAS	SA	UA	US	< 0.5	**0.069**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6015.1	9/15/2012	CAS	SA	UA	US	< 0.5	**0.039**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	NA	< 0.5
6015.1	9/24/2013	ALS	SA	UA	US	< 0.5	**0.021**	< 0.02	**0.018**	< 0.02	< 0.02	< 0.02	**0.0028**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.1**
6015.1	8/1/2015	ALS	SA	UA	US	< 0.5	< 0.02	< 0.02	**0.011**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	< 0.5
6015.1	8/27/2016	ALS	SA	UA	US	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	< 0.5
6015.2	8/13/2010	CAS	SA	UA	UM	**9.4**	< 0.42	**0.49**	**0.15**	**0.19**	**9.1**	**0.037**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**0.8**
6015.2	11/30/2010	CAS	SA	UA	UM	**9**	**0.6**	**0.69**	**0.1**	**0.34**	**13**	**0.07**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.12**	**1.1**	**1.1**
6015.2	3/25/2011	CAS	SA	UA	UM	**6.4**	**0.57**	**0.62**	**0.16**	**0.37**	**8.7**	**0.077**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**0.9**
6015.2	9/20/2011	CAS	SA	UA	UM	**3.7**	**0.7**	**0.62**	**0.14**	**0.36**	**4.6**	**0.066**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**1.1**

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
6015.2	12/18/2011	CAS	SA	UA	UM	**6.2**	**0.42**	**0.61**	**0.11**	**0.42**	**3.7**	**0.076**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**1.1**
6015.2	9/15/2012	CAS	SA	UA	UM	**4**	**0.29**	**0.6**	**0.1**	**0.43**	**2.8**	**0.079**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**1.1**
6015.2	9/24/2013	ALS	SA	UA	UM	**2.3**	**0.32**	**0.3**	**0.17**	**0.41**	**1.4**	**0.082**	**0.0029**	< 0.021	< 0.021	**0.006**	< 0.021	< 0.021	< 0.021	NA	NA	**0.8**
6015.2	8/1/2015	ALS	SA	UA	UM	**0.47**	**0.12**	**0.04**	**0.097**	**0.52**	**1.2**	**0.098**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	NA	NA	**1.27**
6015.2	8/27/2016	ALS	SA	UA	UM	**0.41**	< 0.13	< 0.02	**0.079**	**0.39**	**0.68**	**0.082**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**1.06**
6015.3	8/13/2010	CAS	SA	UA	UD	**11**	**0.84**	**2.2**	**0.19**	**0.65**	**20**	**0.14**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.64**	NA	**2.7**
6015.3	11/30/2010	CAS	SA	UA	UD	< 0.5	**1.1**	**2.9**	**0.19**	**0.85**	**22**	**0.19**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.48**	**3.2**	**3.2**
6015.3	11/30/2010	CAS	FD	UA	UD	**8.8**	**1**	**3**	**0.2**	**0.87**	**22**	**0.21**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.46**	**3.2**	**3.2**
6015.3	3/25/2011	CAS	SA	UA	UD	**11**	**0.86**	**2.3**	**0.15**	**0.77**	**14**	**0.18**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**2.9**
6015.3	3/25/2011	CAS	FD	UA	UD	**12**	**0.87**	**2.4**	**0.16**	**0.8**	**14**	**0.18**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**2.7**
6015.3	9/20/2011	CAS	SA	UA	UD	**7**	**1**	**2.2**	**0.17**	**0.76**	**9**	**0.16**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**3.2**
6015.3	9/20/2011	CAS	FD	UA	UD	**5.4**	**1**	**2.4**	**0.17**	**0.81**	**9.4**	**0.17**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**3.2**
6015.3	12/18/2011	CAS	SA	UA	UD	**5.4**	**0.79**	**2.2**	**0.22**	**0.76**	**8.2**	**0.17**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**3**
6015.3	12/18/2011	CAS	FD	UA	UD	**6.2**	**0.67**	**2.2**	**0.11**	**0.82**	**8.3**	**0.19**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**2.8**
6015.3	9/15/2012	CAS	SA	UA	UD	**4.2**	**0.48**	**2.4**	**0.11**	**0.87**	**7.2**	**0.18**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	NA	**3**
6015.3	9/15/2012	CAS	FD	UA	UD	**4.5**	**0.42**	**2.3**	**0.099**	**0.84**	**7**	**0.18**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	NA	**3**
6015.3	9/24/2013	ALS	SA	UA	UD	**2**	**0.61**	**2.3**	**0.18**	**0.96**	**4.6**	**0.22**	**0.0042**	< 0.021	< 0.021	**0.0067**	< 0.021	< 0.021	**0.0032**	NA	NA	**3**
6015.3	9/24/2013	ALS	FD	UA	UD	**2**	**0.74**	**2.3**	**0.24**	**0.95**	**4.7**	**0.23**	**0.0045**	< 0.02	< 0.02	**0.0065**	< 0.02	< 0.02	< 0.02	NA	NA	**3**
6015.3	8/1/2015	ALS	SA	UA	UD	**1.1**	**0.31**	**0.33**	**0.11**	**1.1**	**3.1**	**0.21**	**0.0028**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**3.08**
6015.3	8/1/2015	ALS	FD	UA	UD	< 0.5	**0.28**	**0.31**	**0.12**	**1.1**	**3**	**0.2**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	NA	NA	**3.01**
6015.3	8/27/2016	ALS	SA	UA	UD	**0.14**	< 0.23	< 0.053	**0.099**	**0.87**	**2.3**	**0.19**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**3.03**
6016.1	8/13/2010	CAS	SA	UA	US	< 0.5	< 0.063	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**0.9**
6016.1	11/30/2010	CAS	SA	UA	US	< 0.5	**0.15**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	< 0.5	< 0.5
6016.1	3/23/2011	CAS	SA	UA	US	< 0.5	**0.12**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**1**
6016.1	9/20/2011	CAS	SA	UA	US	< 0.5	**0.052**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6016.1	12/19/2011	CAS	SA	UA	US	< 0.5	**0.035**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6016.1	9/19/2012	CAS	SA	UA	US	< 0.5	**0.064**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	NA	< 0.5
6016.1	9/25/2013	ALS	SA	UA	US	< 0.5	**0.075**	**0.016**	**0.012**	< 0.02	**0.0063**	< 0.02	**0.0032**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.37**
6016.1	7/28/2015	ALS	SA	UA	US	**1**	**0.27**	**0.49**	**1.1**	**3.8**	**0.4**	**1.7**	**0.0069**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	NA	NA	**1.27**
6016.1	9/13/2016	ALS	SA	UA	US	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.22**
6016.2	8/12/2010	CAS	SA	UA	UM	< 0.5	**0.92**	**27**	**0.32**	**0.69**	**7**	**0.41**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**1.8**
6016.2	11/30/2010	CAS	SA	UA	UM	< 0.5	**1.4**	**49**	**0.6**	**1.8**	**6.3**	**0.95**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**1.1**	**2.1**	**2**
6016.2	3/23/2011	CAS	SA	UA	UM	< 0.5	**1.2**	**50**	**0.73**	**2.2**	**4.3**	**1.3**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	**1.5**	NA	**2.1**
6016.2	9/20/2011	CAS	SA	UA	UM	< 0.5	**1.2**	**36**	**0.45**	**1.4**	**4.8**	**0.72**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.63**	NA	**2**
6016.2	12/19/2011	CAS	SA	UA	UM	< 0.5	**0.89**	**50**	**0.68**	**2**	**3.6**	**1.1**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.93**	NA	**2**
6016.2	9/19/2012	CAS	SA	UA	UM	< 0.5	**0.52**	**42**	**0.62**	**1.9**	**3.2**	**1**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.74**	NA	**1.8**
6016.2	9/25/2013	ALS	SA	UA	UM	< 0.5	**0.62**	**29**	**0.77**	**2.3**	**2.6**	**1.3**	**0.0086**	< 0.021	< 0.021	**0.0058**	**0.0046**	< 0.021	**0.0032**	NA	NA	**1.84**
6016.2	7/28/2015	ALS	SA	UA	UM	< 0.5	**0.36**	**4.3**	**0.69**	**2.5**	**0.79**	**1.2**	**0.0058**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**1.83**
6016.2	9/13/2016	ALS	SA	UA	UM	< 0.5	< 0.21	**0.9**	**0.4**	**2.1**	**0.55**	**1.1**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	NA	NA	**1.79**
6016.2	9/13/2016	ALS	FD	UA	UM	< 0.5	< 1.1	**0.94**	**0.43**	**2.2**	**0.56**	**1.1**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**1.73**

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
6016.3	8/13/2010	CAS	SA	UA	UD	**0.85**	**1.6**	**75**	**1.2**	**2.8**	**2.6**	**1.6**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**1**
6016.3	11/30/2010	CAS	SA	UA	UD	**8.8**	**2.8**	**82**	**1.4**	**3.6**	**1.7**	**2.2**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**2.2**	**2.1**	**2.2**
6016.3	11/30/2010	CAS	FD	UA	UD	**9.6**	**2.9**	**83**	**1.4**	**3.7**	**1.8**	**2.3**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	**2.1**	**2**	**2**
6016.3	3/23/2011	CAS	SA	UA	UD	**12**	**2.2**	**70**	**1.2**	**3.1**	**1**	**1.7**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**2.7**	NA	**2.5**
6016.3	3/23/2011	CAS	FD	UA	UD	**6.3**	**1.7**	**59**	**1.1**	**3.1**	**1.2**	**1.8**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**2.7**	NA	**1.4**
6016.3	9/20/2011	CAS	SA	UA	UD	**2**	**1.9**	**69**	**1**	**3**	**0.59**	**1.8**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**1.9**	NA	**3**
6016.3	9/20/2011	CAS	FD	UA	UD	**1.9**	**1.5**	**72**	**1.2**	**3.5**	**0.65**	**1.9**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	**1.7**	NA	**2.9**
6016.3	12/19/2011	CAS	SA	UA	UD	**1.5**	**1.1**	**72**	**1.1**	**3.2**	< 0.54	**1.8**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**1.6**	NA	**2.3**
6016.3	12/19/2011	CAS	FD	UA	UD	**1.8**	**1**	**69**	**1.1**	**2.9**	**0.52**	**1.6**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**1.7**	NA	**2.2**
6016.3	9/19/2012	CAS	SA	UA	UD	**1.6**	**0.76**	**72**	**1.1**	**3.5**	**0.47**	**1.9**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**1.5**	NA	**1.8**
6016.3	9/19/2012	CAS	FD	UA	UD	**1.7**	**0.7**	**68**	**1**	**3.2**	**0.47**	**1.8**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**1.6**	NA	**1.8**
6016.3	9/25/2013	ALS	SA	UA	UD	**8.2**	**0.72**	**50**	**1.2**	**3.6**	< 0.65	**2.1**	**0.0076**	< 0.021	< 0.021	**0.0081**	< 0.021	**0.0047**	**0.0053**	NA	NA	**0.68**
6016.3	9/25/2013	ALS	FD	UA	UD	**8**	**1.1**	**54**	**1.4**	**4**	< 0.67	**2.3**	**0.0075**	< 0.02	< 0.02	**0.0059**	< 0.02	< 0.02	< 0.02	NA	NA	**1.18**
6016.3	7/28/2015	ALS	SA	UA	UD	< 0.5	< 0.02	**0.024**	**0.029**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	< 0.5
6016.3	7/28/2015	ALS	FD	UA	UD	< 0.5	< 0.02	**0.025**	**0.023**	< 0.02	**0.015**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.23**
6016.3	9/13/2016	ALS	SA	UA	UD	**0.9**	**1.6**	< 0.065	**0.87**	**4.3**	**0.44**	**2.1**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.79**
6017.1	9/29/2010	CAS	SA	UA	US	< 0.5	**27**	**18**	**0.67**	**0.47**	**3**	**0.31**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	**5.7**	**5.7**
6017.1	11/21/2010	CAS	SA	UA	US	< 0.5	**5**	**13**	**0.47**	**0.44**	**1.5**	**0.25**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.11**	**5.9**	**5.9**
6017.1	3/22/2011	CAS	SA	UA	US	< 0.5	**19**	**8.7**	**0.17**	**0.093**	**1.7**	**0.073**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**3.1**
6017.1	9/17/2011	CAS	SA	UA	US	< 0.5	**0.94**	**5.5**	**0.21**	**0.19**	**0.3**	**0.12**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	NA	**2.3**
6017.1	12/13/2011	CAS	SA	UA	US	< 0.5	**1.2**	**9.1**	**0.31**	**0.27**	**0.42**	**0.16**	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.5	**3.3**	NA
6017.1	9/8/2012	CAS	SA	UA	US	< 0.5	< 0.67	**6.9**	**0.22**	**0.19**	< 0.63	**0.097**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	NA	**4.1**
6017.1	9/20/2013	ALS	SA	UA	US	< 0.5	< 1.1	**12**	**0.34**	**0.27**	**1.3**	**0.13**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**4.82**
6017.1	8/2/2015	ALS	SA	UA	US	< 0.5	**0.95**	**9.1**	**0.28**	**0.1**	**1.9**	**0.073**	**0.0056**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.65**
6017.1	9/23/2016	ALS	SA	UA	US	**0.12**	< 0.44	**4**	**0.082**	**0.044**	**0.59**	**0.03**	**0.0059**	< 0.02	< 0.02	< 0.02	**0.004**	< 0.02	< 0.02	NA	NA	**0.54**
6017.2	9/28/2010	CAS	SA	UA	UM	< 0.5	**5.2**	**5.7**	**0.39**	**0.14**	**0.81**	**0.12**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	**3.8**	**3.7**
6017.2	11/21/2010	CAS	SA	UA	UM	< 0.5	**2.1**	**5.2**	**0.4**	**0.18**	**0.66**	**0.13**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.07**	**5.3**	**5.1**
6017.2	3/22/2011	CAS	SA	UA	UM	< 0.5	**3.8**	**5.6**	**0.48**	**0.23**	**0.92**	**0.17**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**5.2**
6017.2	9/17/2011	CAS	SA	UA	UM	< 0.5	**2.1**	**3.5**	**0.28**	**0.16**	**0.44**	**0.11**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	NA	**5.3**
6017.2	12/13/2011	CAS	SA	UA	UM	< 0.5	**1.3**	**6.1**	**0.49**	**0.25**	**0.75**	**0.17**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	**5.8**	NA
6017.2	9/8/2012	CAS	SA	UA	UM	< 0.5	< 0.47	**2.6**	**0.15**	**0.097**	< 0.4	**0.062**	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.5	NA	**3.8**
6017.2	9/20/2013	ALS	SA	UA	UM	< 0.5	< 0.85	**5.9**	**0.37**	**0.19**	**0.98**	**0.12**	**0.0046**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**14.4**
6017.2	8/2/2015	ALS	SA	UA	UM	< 0.5	**0.71**	**4.7**	**0.36**	**0.13**	**1.4**	**0.13**	**0.0074**	< 0.02	< 0.02	< 0.02	**0.004**	< 0.02	< 0.02	NA	NA	**2.97**
6017.2	9/23/2016	ALS	SA	UA	UM	**0.18**	< 0.47	**4.4**	**0.24**	**0.082**	**1.4**	**0.085**	**0.0073**	< 0.02	< 0.02	< 0.02	**0.0041**	< 0.02	< 0.02	NA	NA	**3.31**
6017.3	9/28/2010	CAS	SA	UA	UD	< 0.5	< 3.4	**2.9**	**0.17**	**0.038**	**0.46**	**0.036**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	**1**	**2.1**
6017.3	9/28/2010	CAS	FD	UA	UD	< 0.5	< 2.5	**2.3**	**0.16**	**0.028**	< 0.36	**0.028**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	**1.1**	**1.9**
6017.3	11/21/2010	CAS	SA	UA	UD	< 0.5	**1.1**	**2**	**0.15**	**0.042**	**0.28**	**0.036**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.07**	**2**	**2**
6017.3	3/22/2011	CAS	SA	UA	UD	< 0.5	**2**	**1.7**	**0.21**	**0.056**	**0.31**	**0.054**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	**1.9**
6017.3	9/17/2011	CAS	SA	UA	UD	< 0.5	**1**	**1.2**	**0.14**	**0.044**	**0.14**	**0.048**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	NA	**2.2**
6017.3	12/13/2011	CAS	SA	UA	UD	< 0.5	< 0.46	**2**	**0.21**	**0.062**	**0.18**	**0.059**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	**2.5**	NA

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
6017.3	9/8/2012	CAS	SA	UA	UD	< 0.5	< 0.32	< 1.5	**0.15**	**0.04**	< 0.2	**0.038**	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.5	NA	**3.3**
6017.3	9/20/2013	ALS	SA	UA	UD	< 0.5	< 0.24	**2.6**	**0.28**	**0.11**	**0.42**	**0.083**	**0.0046**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**3.36**
6017.3	8/2/2015	ALS	SA	UA	UD	< 0.5	**0.49**	**2.9**	**0.29**	**0.13**	**0.76**	**0.11**	**0.0081**	< 0.019	< 0.019	< 0.019	**0.0045**	< 0.019	< 0.019	NA	NA	**3.31**
6017.3	9/23/2016	ALS	SA	UA	UD	**0.18**	< 0.32	**2.8**	**0.19**	**0.092**	**0.97**	**0.072**	**0.0091**	< 0.02	< 0.02	< 0.02	**0.0056**	< 0.02	< 0.02	NA	NA	**3.94**
6018.1	9/28/2010	CAS	SA	UA	US	< 0.5	< 0.11	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	< 0.5	< 0.5
6018.1	11/20/2010	CAS	SA	UA	US	< 0.5	**0.078**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	< 0.5	< 0.5
6018.1	3/19/2011	CAS	SA	UA	US	< 0.5	**0.075**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6018.1	9/11/2011	CAS	SA	UA	US	< 0.5	**0.084**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	NA	< 0.5
6018.1	12/11/2011	CAS	SA	UA	US	< 0.5	**0.034**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	< 0.5	NA
6018.1	9/5/2012	CAS	SA	UA	US	< 0.5	**0.14**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6018.1	9/18/2013	ALS	SA	UA	US	< 0.5	**0.033**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.24**
6018.1	7/26/2015	ALS	SA	UA	US	< 0.5	**0.0085**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	< 0.5
6018.1	9/3/2016	ALS	SA	UA	US	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	< 0.5
6018.2	9/28/2010	CAS	SA	UA	UD	< 0.5	< 0.16	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	< 0.5	< 0.5
6018.2	11/20/2010	CAS	SA	UA	UD	< 0.5	**0.16**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	< 0.5	< 0.5
6018.2	3/19/2011	CAS	SA	UA	UD	< 0.5	**0.23**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6018.2	9/11/2011	CAS	SA	UA	UD	< 0.5	**0.18**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6018.2	12/11/2011	CAS	SA	UA	UD	< 0.5	**0.089**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	< 0.5	NA
6018.2	9/5/2012	CAS	SA	UA	UD	< 0.5	**0.11**	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.5	NA	< 0.5
6018.2	9/18/2013	ALS	SA	UA	UD	< 0.5	**0.026**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.39**
6018.2	7/26/2015	ALS	SA	UA	UD	< 0.5	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	NA	NA	**0.25**
6018.2	9/3/2016	ALS	SA	UA	UD	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	< 0.5
6019.1	9/27/2010	CAS	FD	UA	US	< 0.5	< 0.12	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	< 0.5	< 0.5
6019.1	9/28/2010	CAS	SA	UA	US	< 0.5	< 0.089	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	< 0.5	< 0.5
6019.1	11/19/2010	CAS	SA	UA	US	< 0.5	**0.06**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	< 0.5	< 0.5
6019.1	3/21/2011	CAS	SA	UA	US	< 0.5	**0.059**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	NA	< 0.5
6019.1	9/12/2011	CAS	SA	UA	US	< 0.5	**0.05**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6019.1	12/12/2011	CAS	SA	UA	US	< 0.5	**0.044**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	< 0.5	NA
6019.1	9/17/2012	CAS	SA	UA	US	< 0.5	**0.17**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	NA	< 0.5
6019.1	9/17/2013	ALS	SA	UA	US	< 0.5	**0.031**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	NA	NA	**0.41**
6019.1	7/27/2015	ALS	SA	UA	US	< 0.5	**0.0042**	< 0.02	**0.0064**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.28**
6019.1	9/13/2016	ALS	SA	UA	US	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.22**
6019.2	9/27/2010	CAS	SA	UA	UM	< 0.5	< 0.061	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	< 0.5	< 0.5
6019.2	11/19/2010	CAS	SA	UA	UM	< 0.5	**0.043**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	< 0.5	< 0.5
6019.2	3/21/2011	CAS	SA	UA	UM	< 0.5	**0.038**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	NA	< 0.5
6019.2	9/12/2011	CAS	SA	UA	UM	< 0.5	**0.044**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6019.2	12/12/2011	CAS	SA	UA	UM	< 0.5	**0.028**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	< 0.5	NA
6019.2	9/17/2012	CAS	SA	UA	UM	< 0.5	**0.076**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6019.2	9/17/2013	ALS	SA	UA	UM	< 0.5	**0.041**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	NA	NA	**0.26**
6019.2	7/27/2015	ALS	SA	UA	UM	< 0.5	**0.015**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	< 0.5

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
6019.2	9/13/2016	ALS	SA	UA	UM	< 0.5	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	**0.0034**	NA	NA	< 0.5
6019.3	9/27/2010	CAS	SA	UA	UD	< 0.5	< 0.11	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	< 0.5	< 0.5
6019.3	11/19/2010	CAS	SA	UA	UD	< 0.5	**0.051**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	< 0.5	< 0.5
6019.3	3/21/2011	CAS	SA	UA	UD	< 0.5	**0.032**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6019.3	9/12/2011	CAS	SA	UA	UD	< 0.5	**0.051**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	NA	< 0.5
6019.3	12/12/2011	CAS	SA	UA	UD	< 0.5	**0.092**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	< 0.5	NA
6019.3	9/17/2012	CAS	SA	UA	UD	< 0.5	**0.11**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6019.3	9/17/2013	ALS	SA	UA	UD	< 0.5	**0.091**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.29**
6019.3	7/27/2015	ALS	SA	UA	UD	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	< 0.5
6019.3	9/13/2016	ALS	SA	UA	UD	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	< 0.5
6020.1	9/27/2010	CAS	SA	UA	US	< 0.5	< 0.1	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	< 0.5	< 0.5
6020.1	11/19/2010	CAS	SA	UA	US	< 0.5	**0.039**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	< 0.5	< 0.5
6020.1	3/19/2011	CAS	SA	UA	US	< 0.5	**0.044**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	NA	**0.6**
6020.1	9/12/2011	CAS	SA	UA	US	< 0.5	**0.023**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6020.1	12/11/2011	CAS	SA	UA	US	< 0.5	**0.027**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	< 0.5	NA
6020.1	9/4/2012	CAS	SA	UA	US	< 0.5	**0.089**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6020.1	9/21/2013	ALS	SA	UA	US	< 0.5	**0.071**	< 0.02	**0.013**	< 0.02	**0.0038**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.82**
6020.1	7/25/2015	ALS	SA	UA	US	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.61**
6020.1	9/3/2016	ALS	SA	UA	US	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.61**
6020.2	9/27/2010	CAS	SA	UA	UM	< 0.5	< 0.12	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	< 0.5	< 0.5
6020.2	11/19/2010	CAS	SA	UA	UM	< 0.5	**0.043**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	< 0.5	< 0.5
6020.2	3/19/2011	CAS	SA	UA	UM	< 0.5	**0.051**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	NA	< 0.5
6020.2	9/12/2011	CAS	SA	UA	UM	< 0.5	**0.028**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	NA	< 0.5
6020.2	12/11/2011	CAS	SA	UA	UM	< 0.5	**0.021**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	< 0.5	NA
6020.2	9/4/2012	CAS	SA	UA	UM	< 0.5	**0.091**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6020.2	9/21/2013	ALS	SA	UA	UM	< 0.5	**0.048**	< 0.02	**0.017**	< 0.02	< 0.02	< 0.02	**0.0027**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.4**
6020.2	7/25/2015	ALS	SA	UA	UM	< 0.5	**0.005**	< 0.02	**0.0084**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.26**
6020.2	9/3/2016	ALS	SA	UA	UM	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.22**
6020.3	9/27/2010	CAS	SA	UA	UD	< 0.5	< 0.15	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	< 0.5	< 0.5
6020.3	11/19/2010	CAS	SA	UA	UD	< 0.5	**0.023**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	< 0.5	< 0.5
6020.3	3/19/2011	CAS	SA	UA	UD	< 0.5	**0.036**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6020.3	9/12/2011	CAS	SA	UA	UD	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6020.3	12/11/2011	CAS	SA	UA	UD	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	< 0.5	NA
6020.3	9/4/2012	CAS	SA	UA	UD	< 0.5	**0.024**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5
6020.3	9/21/2013	ALS	SA	UA	UD	< 0.5	**0.021**	< 0.02	**0.016**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.41**
6020.3	7/25/2015	ALS	SA	UA	UD	< 0.5	< 0.02	< 0.02	**0.0058**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.26**
6020.3	9/3/2016	ALS	SA	UA	UD	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.26**
6500.1	12/3/1991	LOSL	SA	UA	US	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6500.1	1/28/1992	CAL	SA	UA	US	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
6500.1	4/26/2008	CAS-Kelso	SA	UA	US	< 0.5	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
6500.1	4/26/2008	CAS-Kelso	SA	UA	US	< 1	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.5	**0.59**	**0.63**
6500.1	7/8/2016	ALS	SA	UA	US	< 0.5	**0.095**	< 0.019	**0.0097**	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	NA	NA	**1.19**
6500.1	7/8/2016	ALS	FD	UA	US	< 0.5	**0.059**	< 0.02	**0.012**	< 0.02	< 0.02	< 0.02	**0.0038**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.79**
6500.2	12/2/1991	LOSL	SA	LA	LS	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6500.2	1/28/1992	CAL	SA	LA	LS	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
6500.2	5/7/1992	LOSL	SA	LA	LS	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6500.2	8/12/1992	LOSL	SA	LA	LS	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6500.2	10/21/1992	CAL	UNK	LA	LS	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
6500.2	10/21/1992	CAL	SA	LA	LS	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
6500.2	3/16/1994	LOSL	SA	LA	LS	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	NA	NA	NA
6500.2	3/8/1995	LOSL	SA	LA	LS	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6500.2	3/11/1996	LOSL	SA	LA	LS	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
6500.2	4/11/1997	LOSL	SA	LA	LS	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
6500.2	3/30/1998	LOSL	SA	LA	LS	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6500.2	8/3/1998	LOSL	SA	LA	LS	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6500.2	7/29/1999	QES	SA	LA	LS	**0.28**	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
6500.2	7/15/2000	STL	SA	LA	LS	< 0.5	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
6500.2	8/27/2001	LOSL	SS	LA	LS	< 0.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
6500.2	8/27/2001	STL	SA	LA	LS	< 0.5	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
6500.2	6/19/2002	LOSL	SS	LA	LS	< 0.5	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6500.2	6/19/2002	CAS_K	SA	LA	LS	< 0.5	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	NA	NA	NA
6500.2	6/30/2003	CAS-Kelso	SA	LA	LS	< 0.5	**0.14**	**0.032**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
6500.2	7/3/2004	CAS-Kelso	SA	LA	LS	**0.55**	**0.053**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
6500.2	7/25/2005	CAS-Kelso	SA	LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6500.2	10/24/2006	LOSL	SS	LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6500.2	10/24/2006	CAS-Kelso	FD	LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6500.2	10/25/2006	CAS-Kelso	SA	LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6500.2	9/17/2007	CAS-Kelso	SA	LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6500.2	9/22/2008	CAS-Kelso	SA	LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6500.2	9/22/2009	CAS	SA	LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6500.2	9/6/2010	CAS	SA	LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5
6500.2	9/8/2012	CAS	SA	LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5
6500.2	9/16/2013	ALS	SA	LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.44**
6500.2	9/22/2014	ALS	SA	LA	LS	**0.34**	**0.046**	< 0.02	**0.01**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.3**
6500.2	7/25/2015	ALS	SA	LA	LS	**2.2**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.42**
6500.2	9/3/2016	ALS	SA	LA	LS	**11**	< 0.055	< 0.02	< 0.023	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.37**
6500.3	12/2/1991	LOSL	SA	LA	LD	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6500.3	1/28/1992	CAL	SA	LA	LD	< 0.5	< 2	< 2	< 0.7	< 0.2	**0.24**	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
6500.3	5/7/1992	CAL	SA	LA	LD	NA	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
6500.3	5/7/1992	LOSL	SA	LA	LD	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
6500.3	8/12/1992	LOSL	SA	LA	LD	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6500.3	10/21/1992	CAL	SA	LA	LD	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
6500.3	3/16/1994	LOSL	SA	LA	LD	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6500.3	3/8/1995	LOSL	SA	LA	LD	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6500.3	3/11/1996	LOSL	SA	LA	LD	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
6500.3	4/11/1997	LOSL	SA	LA	LD	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
6500.3	3/30/1998	LOSL	SA	LA	LD	**9**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6500.3	6/3/1998	QES	SA	LA	LD	< 0.5	< 1	< 2	**0.056**	**0.14**	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
6500.3	8/3/1998	LOSL	SA	LA	LD	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6500.3	7/29/1999	QES	SA	LA	LD	< 0.5	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
6500.3	7/15/2000	STL	SA	LA	LD	< 0.5	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
6500.3	8/27/2001	LOSL	SS	LA	LD	< 0.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
6500.3	8/27/2001	STL	SA	LA	LD	**0.54**	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
6500.3	6/24/2002	CAS_K	SA	LA	LD	< 0.5	**0.31**	**0.046**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	NA	NA	NA
6500.3	6/24/2002	CAS_K	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6500.3	6/30/2003	LOSL	SS	LA	LD	**10.18**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
6500.3	6/30/2003	CAS-Kelso	SA	LA	LD	< 0.5	**0.16**	**0.047**	< 0.02	< 0.02	**0.03**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
6500.3	12/8/2003	CAS-Kelso	SA	LA	LD	< 0.5	**0.0063**	**0.025**	**0.0021**	**0.0034**	**0.009**	**0.0029**	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	NA	NA	NA
6500.3	12/8/2003	CAS-Kelso	FD	LA	LD	< 0.5	**0.004**	**0.03**	**0.0029**	**0.0043**	**0.014**	**0.0039**	< 0.02	< 0.02	< 0.02	< 0.02	**0.0014**	< 0.02	< 0.02	NA	NA	NA
6500.3	7/3/2004	CAS-Kelso	SA	LA	LD	< 0.5	**0.047**	**0.026**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
6500.3	7/3/2004	CAS-Kelso	FD	LA	LD	< 0.5	**0.048**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
6500.3	7/5/2004	LOSL	SS	LA	LD	**1.36**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
6500.3	7/5/2004	LOSL	SS	LA	LD	< 3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6500.3	11/29/2004	CAS-Kelso	SA	LA	LD	< 0.5	< 0.054	**0.0061**	**0.0091**	< 0.02	< 0.02	< 0.02	**0.0044**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
6500.3	11/29/2004	CAS-Kelso	FD	LA	LD	< 0.5	< 0.067	< 0.02	**0.0062**	**0.0072**	**0.0064**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
6500.3	7/25/2005	LOSL	SS	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6500.3	7/25/2005	CAS-Kelso	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6500.3	7/25/2005	CAS-Kelso	FD	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6500.3	10/24/2006	CAS-Kelso	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6500.3	9/15/2007	LOSL	SS	LA	LD	**1.35**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6500.3	9/15/2007	CAS-Kelso	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6500.3	9/15/2007	CAS-Kelso	FD	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6500.3	9/22/2008	CAS-Kelso	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6500.3	9/22/2009	CAS	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6500.3	9/6/2010	LOSL	SS	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6500.3	9/6/2010	CAS	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5
6500.3	9/6/2010	CAS	FD	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5
6500.3	9/8/2012	CAS	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5
6500.3	9/16/2013	ALS	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.33**
6500.3	9/22/2014	ALS	SA	LA	LD	< 0.5	**0.02**	< 0.02	**0.0046**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.2**

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
6500.3	7/25/2015	ALS	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.24**
6500.3	9/3/2016	ALS	SA	LA	LD	< 0.5	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	NA	NA	**0.23**
6501.1	12/2/1991	LOSL	UNK	UA	US	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6501.1	12/2/1991	LOSL	SA	UA	US	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6501.1	1/28/1992	CAL	SA	UA	US	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
6501.1	7/8/2016	ALS	SA	UA	US	**0.084**	**0.085**	**0.0071**	< 0.021	< 0.021	**0.0054**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	NA	NA	< 0.5
6501.2	12/2/1991	LOSL	UNK	LA	LD	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6501.2	12/2/1991	LOSL	SA	LA	LD	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6501.2	1/28/1992	CAL	SA	LA	LD	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
6501.2	3/16/1994	LOSL	SA	LA	LD	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6501.2	3/9/1995	LOSL	SA	LA	LD	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6501.2	4/11/1997	LOSL	SA	LA	LD	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
6501.2	7/29/1999	QES	SA	LA	LD	**0.28**	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
6501.2	7/18/2000	STL	SA	LA	LD	< 0.5	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
6501.2	6/19/2002	CAS_K	SA	LA	LD	< 0.5	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	NA	NA	NA
6501.2	6/19/2003	CAS-Kelso	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6501.2	6/26/2003	CAS-Kelso	SA	LA	LD	NA	**0.44**	**0.071**	< 0.021	**0.035**	**0.044**	**0.028**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	NA	NA	NA
6501.2	7/1/2004	CAS-Kelso	SA	LA	LD	< 0.5	**0.034**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
6502.1	4/25/2008	CAS-Kelso	SA	UA	UM	< 0.5	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6502.1	4/25/2008	CAS-Kelso	SA	UA	UM	< 0.99	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.5	**0.13**	**0.12**
6502.1	7/8/2016	ALS	SA	UA	UM	< 0.5	**0.081**	< 0.02	**0.0049**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	< 0.5
6502.2	10/21/1992	CAL	SA	LA	LS	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
6502.2	3/15/1994	LOSL	SA	LA	LS	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6502.2	3/9/1995	LOSL	SA	LA	LS	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6502.2	4/16/1997	LOSL	SA	LA	LS	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
6502.2	7/29/1999	QES	SA	LA	LS	**0.73**	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
6502.2	7/15/2000	STL	SA	LA	LS	**0.58**	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
6502.2	6/24/2002	CAS_K	SA	LA	LS	< 0.5	< 0.036	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	NA	NA	NA
6502.2	6/24/2002	CAS_K	SA	LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6502.2	6/30/2003	CAS-Kelso	SA	LA	LS	< 0.5	**0.067**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
6502.2	7/3/2004	CAS-Kelso	SA	LA	LS	< 0.5	**0.25**	**0.029**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
6502.2	7/26/2005	CAS-Kelso	SA	LA	LS	**0.58**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6502.2	11/4/2006	CAS-Kelso	SA	LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6502.2	9/17/2007	CAS-Kelso	SA	LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6502.2	9/22/2008	CAS-Kelso	SA	LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6502.2	9/22/2009	CAS	SA	LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6502.2	9/5/2010	CAS	SA	LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.7**
6502.2	9/5/2012	CAS	SA	LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.6**
6502.2	9/18/2013	ALS	SA	LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.79**
6502.2	9/22/2014	ALS	SA	LA	LS	< 0.5	**0.02**	**0.0054**	**0.0069**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.6**

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
6502.2	7/25/2015	ALS	SA	LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.61**
6502.2	9/3/2016	ALS	SA	LA	LS	< 0.5	< 0.034	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	NA	NA	**0.6**
6502.3	10/21/1992	CAL	SA	LA	LD	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
6502.3	3/15/1994	LOSL	SA	LA	LD	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6502.3	3/9/1995	LOSL	SA	LA	LD	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6502.3	4/15/1997	LOSL	SA	LA	LD	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
6502.3	2/23/1999	QES	SA	LA	LD	< 0.5	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
6502.3	2/23/1999	QES	FD	LA	LD	< 0.5	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
6502.3	7/29/1999	QES	SA	LA	LD	**0.3**	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
6502.3	7/15/2000	STL	SA	LA	LD	< 0.5	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
6502.3	6/20/2002	CAS_K	SA	LA	LD	< 0.5	**0.14**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	NA	NA	NA
6502.3	6/30/2003	CAS-Kelso	SA	LA	LD	< 0.5	**0.099**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
6502.3	12/9/2003	CAS-Kelso	SA	LA	LD	< 0.5	**0.14**	**0.018**	**0.0015**	< 0.02	**0.0082**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
6502.3	7/3/2004	CAS-Kelso	SA	LA	LD	< 0.5	**0.088**	**0.03**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
6502.3	11/29/2004	CAS-Kelso	SA	LA	LD	< 0.5	< 0.047	**0.012**	**0.0066**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
6502.3	7/25/2005	CAS-Kelso	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6502.3	11/4/2006	CAS-Kelso	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6502.3	9/17/2007	CAS-Kelso	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6502.3	9/22/2008	CAS-Kelso	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6502.3	9/22/2009	CAS	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6502.3	9/5/2010	CAS	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5
6502.3	9/5/2012	CAS	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5
6502.3	9/18/2013	ALS	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.45**
6502.3	9/22/2014	ALS	SA	LA	LD	< 0.5	**0.02**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.2**
6502.3	7/25/2015	ALS	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.27**
6502.3	9/3/2016	ALS	SA	LA	LD	< 0.5	< 0.058	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.35**
6503.1	11/16/1992	LOSL	SA	UA	US	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6503.1	3/29/1993	CAL	SA	UA	US	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	**0.2**	< 0.2	< 0.2	NA	NA	NA
6503.1	3/3/1994	CAL	SA	UA	US	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
6503.1	3/18/1996	QES	SA	UA	US	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
6503.1	4/14/1997	QES	SA	UA	US	< 0.5	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
6503.1	8/4/1998	QES	SA	UA	US	< 0.5	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
6503.1	7/27/1999	QES	SA	UA	US	< 0.5	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
6503.1	7/19/2000	STL	SA	UA	US	< 0.5	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
6503.1	8/23/2001	LOSL	SS	UA	US	< 0.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
6503.1	8/23/2001	STL	SA	UA	US	< 0.5	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
6503.1	6/20/2002	CAS_K	SA	UA	US	< 0.5	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	NA	NA	NA
6503.1	6/19/2003	CAS-Kelso	SA	UA	US	< 0.5	**0.081**	**0.021**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
6503.1	7/3/2004	CAS-Kelso	SA	UA	US	< 0.5	**0.23**	**0.036**	**0.021**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
6503.1	7/26/2005	CAS-Kelso	SA	UA	US	**0.66**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
6503.1	11/3/2006	CAS-Kelso	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6503.1	9/26/2007	CAS-Kelso	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6503.1	4/25/2008	CAS-Kelso	SA	UA	US	< 0.5	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6503.1	4/25/2008	CAS-Kelso	SA	UA	US	< 1	< 0.39	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.5	**0.19**	**0.2**
6503.1	10/6/2008	CAS-Kelso	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6503.1	10/6/2008	CAS-Kelso	FD	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6503.1	9/15/2009	CAS	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6503.1	9/7/2010	CAS	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5
6503.1	9/17/2012	CAS	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5
6503.1	9/17/2012	CAS	FD	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5
6503.1	9/23/2013	ALS	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.1**
6503.1	9/23/2013	ALS	FD	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.2**
6503.1	9/23/2014	ALS	SA	UA	US	< 0.5	**0.058**	< 0.02	**0.011**	< 0.02	< 0.02	< 0.02	**0.0026**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.15**
6503.1	9/23/2014	ALS	FD	UA	US	< 0.5	**0.062**	< 0.02	**0.011**	< 0.02	< 0.02	< 0.02	**0.0031**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.14**
6503.1	8/3/2015	ALS	SA	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**3.14**
6503.1	8/3/2015	ALS	FD	UA	US	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**3.05**
6503.1	9/27/2016	ALS	SA	UA	US	< 0.5	< 0.13	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.0034**	< 0.02	< 0.02	< 0.02	**0.0049**	< 0.02	< 0.02	NA	NA	**0.18**
6503.2	11/17/1992	LOSL	UNK	LA	LS	**33**	< 3	**34**	**6**	**7**	**19**	**6**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6503.2	11/17/1992	LOSL	SA	LA	LS	**64**	< 3	**58**	**17**	**32**	**41**	**26**	**5**	< 3	< 3	< 3	**5**	< 3	< 3	NA	NA	NA
6503.2	3/14/1994	LOSL	SA	LA	LS	**48**	**82**	**13.6**	< 3.4	< 3.4	**5.5**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6503.2	3/10/1995	LOSL	SA	LA	LS	< 3.4	**5**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6503.2	3/13/1995	QES	SA	LA	LS	**2.9**	< 2	< 2	< 0.7	< 0.2	< 0.2	< 0.3	< 0.08	< 0.05	< 0.02	< 0.02	< 0.2	< 0.2	< 0.2	NA	NA	NA
6503.2	3/13/1996	LOSL	SA	LA	LS	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
6503.2	4/16/1997	LOSL	SA	LA	LS	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
6503.2	8/3/1998	LOSL	SA	LA	LS	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6503.2	4/28/1999	LOSL	SA	LA	LS	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6503.2	7/28/1999	LOSL	SA	LA	LS	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6503.2	7/18/2000	STL	SA	LA	LS	< 0.5	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
6503.2	8/23/2001	LOSL	SS	LA	LS	< 0.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
6503.2	8/23/2001	STL	SA	LA	LS	< 0.5	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
6503.2	6/20/2002	CAS_K	SA	LA	LS	< 0.5	**0.091**	**0.05**	< 0.02	< 0.02	**0.021**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
6503.2	6/19/2003	CAS-Kelso	SA	LA	LS	< 0.5	**0.071**	**0.028**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
6503.2	7/3/2004	CAS-Kelso	SA	LA	LS	< 0.5	**0.09**	**0.06**	**0.025**	< 0.02	**0.025**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
6503.2	7/27/2005	CAS-Kelso	SA	LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6503.2	11/3/2006	CAS-Kelso	SA	LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6503.2	9/17/2007	CAS-Kelso	SA	LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6503.2	9/17/2007	CAS-Kelso	FD	LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6503.2	9/19/2007	LOSL	SS	LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6503.2	9/23/2008	CAS-Kelso	SA	LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6503.2	9/15/2009	LOSL	SS	LA	LS	< 3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
6503.2	9/15/2009	CAS	SA	LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6503.2	9/7/2010	CAS	SA	LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5
6503.2	9/17/2012	CAS	SA	LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5
6503.2	9/23/2013	ALS	SA	LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.7**
6503.2	9/23/2014	ALS	SA	LA	LS	< 0.5	**0.11**	**0.0098**	**0.018**	< 0.02	**0.0049**	**0.0086**	**0.0062**	**0.0073**	**0.0098**	**0.0058**	**0.0064**	< 0.02	**0.0091**	NA	NA	**1.24**
6503.2	8/3/2015	ALS	SA	LA	LS	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.51**
6503.2	9/14/2016	ALS	SA	LA	LS	< 0.5	< 0.071	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	< 0.5
6503.3	11/16/1992	LOSL	SA	LA	LD	**20**	< 3	**30**	**6**	**7**	**20**	**5**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6503.3	3/14/1994	LOSL	SA	LA	LD	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6503.3	3/10/1995	LOSL	SA	LA	LD	< 3.4	**10.9**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6503.3	3/13/1996	LOSL	SA	LA	LD	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
6503.3	4/16/1997	LOSL	SA	LA	LD	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
6503.3	8/3/1998	LOSL	SA	LA	LD	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
6503.3	4/28/1999	LOSL	SA	LA	LD	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6503.3	7/28/1999	LOSL	SA	LA	LD	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
6503.3	7/19/2000	STL	SA	LA	LD	< 0.5	< 1	< 2	**0.23**	**1.3**	**0.23**	**0.81**	**0.18**	**0.055**	< 0.02	< 0.02	**0.16**	< 0.2	< 0.1	NA	NA	NA
6503.3	8/23/2001	STL	SA	LA	LD	< 0.5	< 1	< 2	< 0.04	< 0.1	< 0.2	< 0.2	< 0.08	< 0.05	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	NA	NA	NA
6503.3	6/24/2002	CAS_K	SA	LA	LD	< 0.5	**0.098**	**0.022**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
6503.3	6/24/2002	CAS_K	SA	LA	LD	< 0.53	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6503.3	6/19/2003	CAS-Kelso	SA	LA	LD	< 0.5	**0.021**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
6503.3	7/3/2004	CAS-Kelso	SA	LA	LD	< 0.5	**0.065**	**0.033**	**0.027**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
6503.3	7/26/2005	CAS-Kelso	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6503.3	11/3/2006	CAS-Kelso	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6503.3	9/17/2007	CAS-Kelso	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6503.3	9/23/2008	CAS-Kelso	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6503.3	9/15/2009	CAS	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6503.3	9/7/2010	CAS	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.7**
6503.3	9/17/2012	CAS	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5
6503.3	9/23/2013	ALS	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.5**
6503.3	9/23/2014	ALS	SA	LA	LD	< 0.5	**0.13**	**0.011**	**0.043**	**0.45**	**0.013**	**0.4**	**0.13**	**0.057**	**0.089**	**0.036**	**0.15**	**0.0046**	**0.017**	NA	NA	**0.96**
6503.3	8/3/2015	ALS	SA	LA	LD	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.56**
6503.3	9/14/2016	ALS	SA	LA	LD	< 0.5	< 0.09	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.44**
8001.1	7/9/2016	ALS	SA	UA	UM	**0.44**	**0.34**	**0.14**	**2.9**	**5.7**	**4.2**	**4.3**	**0.83**	**0.28**	**0.42**	**0.17**	**1**	**0.023**	**0.083**	NA	NA	**10.3**
8002.1	6/8/2016	ALS	SA	UA	UM	NA	**0.18**	**0.01**	**0.16**	< 0.02	**0.0092**	**0.01**	**0.0098**	**0.0072**	**0.01**	< 0.02	< 0.02	< 0.02	**0.012**	NA	NA	**0.38**
8002.1	6/8/2016	LOSL	SA	UA	UM	**3.2**	**213**	**17.8**	< 3.5	< 3.5	**6.4**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
8006.1	7/1/1992	LOSL	SA	UA	UM	< 3	**5**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
8006.1	3/15/1993	LOSL	SA	UA	UM	< 3	**8.3**	**5.3**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
8006.1	3/15/1993	LOSL	FD	UA	UM	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
8006.1	3/8/1994	LOSL	SA	UA	UM	< 3.4	**18.3**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
8006.1	3/3/1995	LOSL	SA	UA	UM	< 3.4	**12.6**	**3.3**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
8006.1	3/14/1996	LOSL	SA	UA	UM	< 3.5	**33.4**	**9.1**	< 3.5	< 3.5	**5.3**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
8006.1	4/14/1997	LOSL	SA	UA	UM	**7.7**	**119**	**14.9**	< 3.5	< 3.5	**7**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
8006.1	4/14/1997	QES	SA	UA	UM	**0.5**	**150**	< 40	< 7	< 2	< 2	< 3	< 0.8	< 0.5	< 0.2	< 0.2	< 2	< 2	< 2	NA	NA	NA
8006.1	4/14/1997	LOSL	FD	UA	UM	**14.5**	**192.5**	**27.2**	**12**	< 3.5	**12.2**	< 3.5	**8.9**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
8006.1	7/31/1998	LOSL	SA	UA	UM	**9.6**	**82**	**22**	< 3	< 3	**13**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
8006.1	7/31/1998	QES	SA	UA	UM	< 0.5	**94**	< 50	< 1	< 2.5	**14**	< 5	< 2	< 1.2	< 0.5	< 0.5	< 2.5	< 5	< 2.5	NA	NA	NA
8006.1	7/31/1998	LOSL	FD	UA	UM	**16.5**	**115**	**37**	**17**	< 3	**23**	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
8006.1	7/30/1999	LOSL	SA	UA	UM	**10.8**	**47.1**	**23**	**14.2**	< 3.4	**11.4**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
8006.1	7/30/1999	QES	SA	UA	UM	NA	**23**	< 10	**0.84**	**0.69**	**7.4**	< 1	< 0.4	< 0.25	< 0.1	< 0.1	< 0.5	< 1	< 0.5	NA	NA	NA
8006.1	7/30/1999	LOSL	FD	UA	UM	**11**	**48.2**	**25**	**15.2**	< 3.4	**11.2**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
8006.1	7/22/2000	LOSL	SA	UA	UM	**10.1**	**26.9**	**18.3**	< 3.4	< 3.4	**10.3**	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	NA	NA	NA
8006.1	9/1/2001	LOSL	SSFD	UA	UM	< 0.5	**29.7**	**11.7**	< 3.5	< 3.5	**5.4**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
8006.1	9/1/2001	LOSL	SS	UA	UM	< 0.5	**14**	**5.7**	< 3.5	< 3.5	**3.5**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
8006.1	9/1/2001	STL	SA	UA	UM	< 0.5	**22**	**12**	**0.33**	< 0.5	**5.4**	< 1	< 0.4	< 0.25	< 0.1	< 0.1	< 0.5	< 1	< 0.5	NA	NA	NA
8006.1	6/25/2002	CAS_K	SA	UA	UM	< 0.5	**25**	**10**	**0.38**	**0.27**	**4.5**	**0.17**	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	NA	NA	NA
8006.1	6/25/2002	CAS_K	SA	UA	UM	< 0.53	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8006.1	6/25/2002	LOSL	SA	UA	UM	< 0.5	**37.3**	**13.7**	< 3.5	< 3.5	**6.3**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
8006.1	6/25/2002	LOSL	FD	UA	UM	< 0.5	**46.3**	**24.6**	< 3.5	< 3.5	**7.8**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
8006.1	6/27/2003	LOSL	SS	UA	UM	< 0.5	**12.3**	**15.6**	< 3.5	< 3.5	**7.8**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
8006.1	6/27/2003	CAS-Kelso	SA	UA	UM	< 0.5	**7.2**	**18**	**0.53**	**0.93**	**5.7**	**0.54**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
8006.1	6/27/2003	LOSL	FD	UA	UM	< 0.5	**13.1**	**19.9**	< 3.5	< 3.5	**10**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
8006.1	12/9/2003	CAS-Kelso	SA	UA	UM	< 0.5	**1.1**	**4.7**	**0.098**	**0.44**	**1.7**	**0.32**	< 0.02	< 0.02	< 0.02	< 0.02	**0.0039**	< 0.02	< 0.02	NA	NA	NA
8006.1	7/2/2004	LOSL	SA	UA	UM	< 0.5	**3.8**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
8006.1	7/2/2004	LOSL	SA	UA	UM	< 3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8006.1	11/19/2004	CAS-Kelso	SA	UA	UM	**0.28**	< 0.058	**0.31**	**0.044**	**0.045**	**0.025**	**0.058**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA
8006.1	7/27/2005	CAS-Kelso	SA	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8006.1	11/7/2006	LOSL	SA	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8006.1	9/19/2007	LOSL	SA	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8006.1	4/20/2008	CAS-Kelso	SA	UA	UM	< 0.5	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8006.1	4/20/2008	CAS-Kelso	SA	UA	UM	< 1	< 0.2	**0.041**	**0.055**	**0.045**	< 0.2	**0.045**	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.5	**0.09**	**0.62**
8006.1	9/18/2008	LOSL	SA	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8006.1	9/11/2009	LOSL	SA	UA	UM	< 3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8006.1	9/2/2010	CAS	SA	UA	UM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.5**
8006.1	9/2/2010	LOSL	SA	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8006.1	9/10/2011	LOSL	SA	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8006.1	9/11/2012	CAS	SA	UA	UM	NA	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.5	NA	< 0.5
8006.1	9/11/2012	LOSL	SA	UA	UM	**1.39**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8006.1	9/11/2012	CAS	FD	UA	UM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5	NA	< 0.5
8006.1	9/11/2012	LOSL	FD	UA	UM	**1.02**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8006.1	9/10/2013	ALS	SA	UA	UM	NA	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.5	NA	< 0.5

Appendix B

LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (PCP, PAHs, AND ARSENIC) 1987 THROUGH 2016

LocationID	Sample Date	Lab Name	Field QC	Screen Unit	Aquifer Subunit	Pentachlorophenol (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Pyrene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)	Benzene (ug/L)	Arsenic-Dissolved (ug/L)	Arsenic-Total (ug/L)
8006.1	9/10/2013	LOSL	SA	UA	UM	< 0.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
8006.1	9/10/2013	ALS	FD	UA	UM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5
8006.1	9/10/2013	LOSL	FD	UA	UM	< 0.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
8006.1	9/6/2014	ALS	SA	UA	UM	NA	**0.014**	< 0.02	**0.01**	< 0.02	< 0.02	< 0.02	**0.0029**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.3**
8006.1	9/6/2014	LOSL	SA	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8006.1	7/30/2015	LOSL	SA	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8006.1	7/31/2015	ALS	SA	UA	UM	NA	**0.015**	< 0.02	**0.012**	< 0.02	< 0.02	< 0.02	**0.0029**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.67**
8006.1	7/31/2015	ALS	FD	UA	UM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.73**
8006.1	7/31/2015	LOSL	FD	UA	UM	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8006.1	9/5/2016	ALS	SA	UA	UM	< 0.5	< 0.024	< 0.02	< 0.02	< 0.02	< 0.02	**0.0057**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**1.06**
8006.2	7/1/1992	LOSL	SA	IZ	IZ	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	NA
9001.1	7/8/2016	ALS	SA	UA	UM	**0.14**	**0.34**	**0.17**	**0.027**	< 0.02	**0.033**	< 0.02	**0.0027**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	**0.33**
9004.0	11/14/1989	CAL	UNK			**5500**	**900000**	< 50000	**24000**	**47000**	**100000**	**38000**	**8800**	**2600**	**2600**	**1400**	< 25000	< 10000	< 2500	NA	NA	NA
9004.1	11/14/1989	CAL	UNK			**6500**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9005	11/14/1989	CAL	UNK			**4800**	**24000**	< 10000	**410**	**910**	**1300**	**680**	**150**	**53**	**53**	**28**	< 500	< 200	< 50	NA	NA	NA
9500.1	5/31/2016	ALS	SA	UA	UD	**0.4**	**78**	**130**	**5.8**	**3.3**	**62**	**1.9**	**0.069**	**0.015**	**0.017**	**0.0063**	**0.067**	< 0.02	**0.0055**	NA	NA	**11**
9500.1	5/31/2016	LOSL	SA	UA	UD	**12**	**209**	**114**	**7.6**	**4**	**59.1**	**3.8**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
9501.1	5/31/2016	ALS	SA	UA	US	**1.6**	**0.66**	**54**	**2.6**	**2**	**26**	**1.1**	**0.029**	**0.0077**	**0.0073**	< 0.02	**0.024**	< 0.02	**0.0034**	NA	NA	**7.1**
9501.1	5/31/2016	LOSL	SA	UA	US	< 3.5	**15.2**	**32.9**	< 3.5	< 3.5	**16**	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	NA	NA	NA
9503.1	9/28/2016	ALS	SA	UA	US	< 0.5	**55**	**48**	**2.9**	**1.4**	**28**	**0.71**	**0.019**	< 0.02	< 0.02	< 0.02	**0.014**	< 0.02	< 0.02	NA	NA	**26.1**
9503.2	9/28/2016	ALS	SA	UA	UD	< 0.5	**59**	**42**	**2.4**	**1.1**	**22**	**0.59**	**0.016**	< 0.02	< 0.02	< 0.02	**0.014**	< 0.02	< 0.02	NA	NA	**24.5**
9504.1	7/13/2016	ALS	SA	UA	UM	**5500**	**110000**	**16000**	**6400**	**13000**	**11000**	**8100**	**1800**	**680**	**910**	**390**	**2000**	**62**	**230**	NA	NA	**8**

Notes:

Numbers in Bold indicates detections.

< = nondetected values less then the reporting limit

Shaded values indicated the the concentation exceeds the MDEQ standard.